CURRICULUM
OF
COLLEGE OF MEDICINE
UNIVERSITY OF NINEVAH

منهاج
كلية الطب
جامعة نينوى

2023-2024

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Curriculum of

College of Medicine

University of Ninevah

(NUCOM)

2023-2024

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عميد الكلية

Curriculum of
College of medicine
UNIVERSITY OF NINEVAH

المنهاج الدراسي / كلية الطب / جامعة نينوى

2023 2024

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ممثل الطلبة في الكلية

الطالب حسن رعد سالم	ممثل طلبة المرحلة الرابعة

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كلمة عميد الكلية

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ... بسم الله القائل في كتابه:

﴿وَأَنْ لَيْسَ لِلْإِنْسَانِ إِلَّا مَا سَعَى (39) وَأَنَّ سَعْيَهُ سَوْفَ يُرَى (40) ثُمَّ يُجْزَاهُ الْجَزَاءَ الْأَوْفَى (41)﴾

سيداتي . . سادتي الاكارم . .

يشرفنا ويسعدنا ان نضع بين ايديكم ملخص المنهاج الدراسي لكلية الطب في جامعة نينوى للعام الدراسي 2023-2024 والذي جاء خلاصة لخبرة التدريسيين فيها ليكون دستورا للطلبة يستنيرون به في مسيرتهم العلمية .

سعت كلية الطب، منذ تأسيسها في عام 2001 م، لتكون منارة للعلم والتعلم، وحرصت قياداتها المتعاقبة على تطوير البيئة التعليمية، لتكون علمية تفاعلية ومشجعة . ومن هذه الخطى انبثقت رسالة الكلية والتزامها الدائم بالتميز في التعليم الطبي وتخريج أطباء كفوئين، متميزين في عملهم، متقنين لمعارفهم ومهاراتهم وقادرين على علاج أبناء وطنهم وتطوير واقعهم .

لقد حرصنا نحن في كلية الطب على توفير أحدث المناهج الدراسية والتقنيات الطبية، وعلى بذل قصارى جهودنا لتقديم الدعم والتوجيه اللازم لطلابنا، وذلك من خلال المحاضرات النظرية والدروس العملية والسريرية والأنشطة البحثية . ان كلية الطب ليست مجرد مكان لتلقي العلم، بل هي بيئة متكاملة تجمع بين التعليم والتدريب والبحث العلمي، فنحن نؤمن بأن الطبيب الجيد ليس فقط من يمتلك المعلومات الطبية، بل هو من يستطيع تطبيقها بحكمة واحترافية لخدمة المرضى والمجتمع، وله القابلية على الانخراط في البحث العلمي لفهم أعمق لمسببات المرض ولتطوير العلاجات الحديثة مما يساهم في تحسين جودة الرعاية الصحية بشكل مستمر.

أعزائي الطلبة . . . ان تحديات المجال الطبي عديدة ومتنوعة، ولكننا على يقين بأنكم، ومن خلال التفاني في الدراسة والعمل، ستكونون قادرين على تجاوزها بنجاح. نعدكم بأننا سنكون دائما الى جانبكم، داعمين ومساندين، لضمان تحقيق هدفكم الأكبر . . انتم الامل والمستقبل، وعلى عاتقكم تقع المسؤولية الكبيرة تجاه وطنكم ومجتمعكم . بإرادتكم الصلبة ستكونون قادرين على تحقيق النجاح والتميز.

ختاما أتمنى للكلية وكادرها وطلبتها مسيرة تعليمية موفقة ومثمرة . ليكن شعارنا دائما " العلم والعمل من اجل الإنسانية" .

والسلام عليكم ورحمة الله وبركاته...

الأستاذ المساعد

د. مؤمن جنيد سالم الديوني

عميد الكلية

كلمة السيد المعاون العميد للشؤون العلمية

طلبتنا الأعزاء...

تحية طيبة :

يعد منهاج كلية الطب هو الخطة الدراسية التي يجب على الطلاب اتباعها لإكمال تعليمهم الطبي حيث يشمل منهاج الطب دراسة مجموعة من المواد النظرية والعملية التي تمكن الطلاب من اكتساب المعرفة والمهارات الضرورية لممارسة مهنة الطب بفعالية. وتشمل هذه المواد مجالات مثل العلوم الأساسية والسريرية، الطب الوقائي، والتشخيصي، والعلاجي.

يهدف منهاج كلية الطب إلى تزويد الطلاب بالمعرفة العلمية والمهارات العملية الضرورية لفهم ومعالجة الأمراض والاضطرابات الصحية بشكل شامل ومتخصص. كما يسعى المنهاج إلى تنمية القيم الأخلاقية والمهنية اللازمة لممارسة طبية أخلاقية ومسؤولة.

بالإضافة إلى ذلك، يتم تحديث منهاج كلية الطب بانتظام ليعكس التطورات الطبية الحديثة والابتكارات التقنية في مجال الرعاية الصحية. إن اتباع الطلاب لهذا المنهاج وتحقيقهم للأهداف التعليمية المحددة يكون لهم بوصلة طريق ناجحة نحو ممارسة مهنة الطب بكفاءة واحترافية عالية.

فقد شارك في كتابة المنهاج نخبة من الأساتذة المختصين ، وقد تم صهر خبراتهم واختصاصاتهم لضمان وضع منهاج شامل ومتوازن يلبي احتياجات الطلاب بشكل أفضل.

حيث ان كتابة المنهاج الدراسي استند إلى أحدث الأبحاث والممارسات السريرية، مما يساهم في تعزيز جودة التعليم ويرفع من مستوى التعليم الجامعي ،كما وانه وجود هكذا نخبة من الأساتذة المشاركين في كتابة المنهاج يقدم توجيهًا قيمًا للطلاب بناءً على خبراتهم الأكاديمية، مما يساعد الطلاب في تحديد اهتماماتهم ومساراتهم المهنية المستقبلية .

نتمنى لكم كل التوفيق والنجاح في مسيرتكم العلمية....

م.د.عبدالله شاكر محمود

معاون العميد للشؤون العلمية

كلمة السيدة نائب رئيس لجنة المنهاج والمشرفة على اعداد الدليل

"ليس العلمُ ماحُفظ، إنما العلمُ ما نُفع "

الإمام الشافعي..

أن من أبرز مميزات أي مؤسسة تعليمية هي خططها الدراسية وبرامجها الأكاديمية التي تصقل خريجيها وتؤهلهم. لذلك فأن متابعة التطورات العلمية والتحديثات التعليمية لتلبية متطلبات سوق العمل واحتياجات المجتمع هي من الضروريات لإعداد خريجين مؤهلين تأهيلاً جيداً..

ويعد منهاج الكلية هو خارطة الطريق لتنفيذ البرنامج التعليمي، وهو الأساس الذي تُوضع عليه الخطط وتُسخر له الإمكانات البشرية والمادية اذ تسعى كليتنا إلى وضع منهاج يتناسب مع أهدافها ورسالتها في تخريج جيل متميز من الأطباء قادرين على تحمل المسؤولية ومواكبة التطورات العالمية السريعة.

يتكون منهاج كليتنا، وعلى مدار السنوات الست من الدراسة، من برنامج قائم على المواضيع والأجهزة. يركز في السنوات الثلاث الأولى على العلوم الأساسية التي تؤهل لما يأتي بعدها من مواد سريرية. ورغم اعتمادنا على الطرق التقليدية في التعليم ، الا اننا نسعى جاهدين للتحول تدريجياً نحو أساليب التعليم الحديثة، وقد اتخذت الكلية خطوات جادة في إدخال طرق جديدة في الامتحانات والتقييم، و البحث العلمي.

هذا الدليل، بما يحمله من تفاصيل نرجو ان يكون عوناً لطلبتنا الأعزاء ولكل من يطلع عليه، فقد وُضع المنهاج بشكل مقسم على السنوات الست وحسب المواد الدراسية ، يشمل تفاصيل عدد الوحدات والأهداف التعليمية وطرق التدريس والامتحان ويتضمن ملحقات فيها جداول التدريس وسياسات الكلية المتعلقة بالعملية التعليمية. أعد هذا الدليل لجنة المنهاج، بمساهمة عدد من أساتذة الكلية المجتهدين .

إن وجدتم فيه توفيقاً فهو من الله، وإن وجدتم تقصيرا فهو من عند أنفسنا، وفوق كل ذي علم عليم.

أ.م.د رشا نديم أحمد

نائب رئيس لجنة المنهاج / المشرفة على اعداد الدليل

رؤية واهداف ورسالة الكلية

الرؤية:

التميز في التعليم الطبي على المستوى العالمي.

Vision

Excellence in the medical education at the global level.

الرسالة:

كلية الطب في جامعة نينوى تسعى الى التميّز والرقيّ في مستوى التعليم الطبي من أجل الحصول على خريجين أكفاء يمكنهم خدمة مجتمعهم ولديهم المعرفة الجيدة التي تؤهلهم للمشاركة في تدريب الدراسات العليا.

The Mission

The College of Medicine in Ninevah University has an upgraded goal of excellence in the medical education in order to have a competent graduates who can serve their society and have a good knowledge to be engaged in postgraduate training.

الأهداف:

1. تعليم الطلبة أسس التفكير العلمي السليم، وإعدادهم ريادياً، وذلك بدعم تطورهم شخصيا واجتماعيا وأكاديميا ومهنيا.
2. تزويد الطالب بمهارات التعامل الانساني القويم والمبادئ الخلقية للمهن الصحية وكسب ثقة أفراد المجتمع.
3. . تشجيع النشاطات اللامنهجية، والتي تشمل النشاطات الرياضية والفنية والاجتماعية والأدبية.
4. تعزيز التميز في التدريس من خلال تهيئة بيئة علمية سليمة ترتقي بالمستوى العلمي والأكاديمي للهيئة التدريسية ، وتوفير البنية التحتية المتطورة.
5. تكوين شراكات استراتيجية مع المجتمع المحلي وإنجاز برامج بحثية حول مشاكل المجتمع ومشاكله الصحية.
6. الارتقاء بمستوى البحث العلمي في الكلية الى مستوى عالمي و السعي لإنشاء مركز للبحوث العلمية و العمل على تأسيس مجلة علمية تتولى نشر البحوث العلمية الرصينة
7. الأخذ بأساليب الادارة العصرية والسعي نحو والإدارة والحكومة الإلكترونية.
8. العمل على تأسيس برامج الدراسات العليا في مجال العلوم الطبية الأساسية والسريرية.
9. فتح افاق التعاون العلمي والبحثي مع المؤسسات التعليمية والطبية النظيرة على المستوى الوطني والاقليمي والعالمي .
10. اعتماد مبدأ التعليم مدى الحياة.

Objectives

1- To teach students the basics of sound scientific thinking and prepare them as pioneers by supporting their personal, social, academic and professional development.

2- Provide the students with skills of human handling and the ethical principles of health professions and gain confidence of the members of the community.

3- Encourage extracurricular activities, including sporting, artistic, social and literary activities.

4- To promote excellence in teaching by creating a sound scientific environment that elevates the scientific and academic levels of the teaching staff and provide the advanced infrastructure.

5- Forming strategic partnerships with the local community and carrying out research programs on the society's problem and health needs.

6- To raise the level of scientific research in the college to a global level and seek to establish a center of scientific research and work on the establishment of a scientific journal to publish the sound scientific researches.

7- Adoption of the modern management methods and the pursuit the electronic management and governance.

8- Work on the establishment of higher educational programs in the field of basic and clinical medical sciences.

9- Opening the horizons of scientific and research cooperation with the educational and medical counterpart institutions at the national, regional and global levels.

10- Adoption of the principle of lifelong learning.

مخرجات التعلم لكلية الطب جامعة نينوى

خريج كلية الطب جامعة نينوى يجب ان يتمتع بما يلي :

- المعرفة والمهارات في العلوم الطبية الأساسية والسريرية.
- المعرفة والقدرة على إجراء التداخلات الطبية الضرورية والمنقذة للحياة في حالات الطواريء مع اكتساب المهارات التقنية اللازمة.
- التحلي بمهارات التواصل الفعال مع المرضى والكادر الطبي من خلفيات متنوعة.
- مهارات التعامل مع الامراض الشائعة في المجتمع .
- الالتزام بالمبادئ المهنية والأخلاقية العالية في الممارسة الطبية
- الاستعداد للعمل في المستشفيات ومؤسسات الرعاية الصحية الأخرى .
- القدرة على التعلم مدى الحياة لمواكبة التطورات الطبية وتطوير المهارات بشكل مستمر والانخراط في الدراسات العليا.

Learning Outcomes for the College of Medicine, Ninevah University

The graduate of NUCM must have the following:

- Knowledge and skills in basic and clinical medical sciences.
- Knowledge and ability to perform necessary and life-saving medical interventions in emergency situations, with the acquisition of necessary technical skills.
- Possession of effective communication skills with patients and medical staff from diverse backgrounds.
- Skills in managing common diseases in the community.
- Commitment to high professional and ethical principles in medical practice.
- Readiness to work in hospitals and other healthcare institutions.
- Ability to engage in lifelong learning to keep up with medical advancements and continuously develop skills, including pursuing postgraduate studies.

ملخص منهاج
كلية الطب – جامعة نينوى
2024-2023

المرحلة الأولى

	كود المادة	عدد الوحدات	المناقشة	العملي	النظري	The Subject	المادة
1	101	5	15	60	45	Medical Physics	الفيزياء الطبية
2	102	4		60	30	Computor	الحاسبات
3	103	2			30	Basics of Medicine	اساسيات الطب
4	104	8		120	60	Anatomy	التشريح
5	105	6	15	60	60	Biology	الاحياء الطبية
6	106	6		60	60	Medical chemistry	الكيمياء الطبية
7	107	2			30	Human Rights and Democracy	حقوق الانسان والديمقراطية
8	107u	2			30	English	الانكليزي
		35	30	360	345	المجموع	

المرحلة الثانية

	كود المادة	عدد الوحدات	المناقشة	العملي	النظري	The Subject	المادة
1	208	13	30	90	150	Medical Physiology	الفسلجة الطبية
2	209	2			30	Embryology	الاجنة
3	210	10	30	180	60	Anatomy	التشريح
4	211	6		90	45	Hidtology	الانسجة
5	212	2			30	Crimes of the Ba'ath Regime in Iraq	جرائم نظام البعث في العراق
6	213	8	30	60	90	Biochemistry	الكيمياء الحياتية
		41	90	420	405	المجموع	

المرحلة الثالثة

	كود المادة	عدد الوحدات	المناقشة	السريري	العملي	النظري	The Subject	المادة
1	314	6	15		60	60	Parasitology	الطفيليات
2	315	12	30		120	120	Pathology	الامراض
3	316	8			60	90	Microbiology	الاحياء المجهرية
4	317	8	30		60	90	Pharmacology	الادوية
5	318	2				30	Suregery	الجراحة
6	319	3			30	30	Community Medicine	طب المجتمع
7	320	5		60		45	Internal Medicine	الطب الباطني
		44	75	60	330	465	المجموع	

المرحلة الرابعة

	كود المادة	عدد الوحدات	المناقشة	السريري	العملي	النظري	The Subject	المادة
1	421	9		96		90	Suregery	الجراحة
2	422	6			60	60	Forensic Medicine	الطب العدلي
3	424	12		80		132	Internal Medicine	الطب الباطني
4	425	11			120	105	Community Medicine	طب المجتمع
5	426	2				30	Medical Ethics	اخلاقيات الطب
6	427	7		80		60	Gynecology &obstetric	النسائية والتوليد
7	428	2				30	Behavioral Sciences	العلوم السلوكية
		49		256	180	507	المجموع	

المرحلة الخامسة

	كود المادة	عدد الوحدات	عدد الاسابيع	السريري	النظري	The Subject	المادة
1	529	7	4	60	73	Internal Medicine	الطب الباطني
2	530	6	3	54	60	Suregery	الجراحة
3	531	6	4	72	60	Psychatry	النفسية
4	532	9	9	115	82	Pediatric	طب الاطفال
5	533	3	2	40	30	ENT	انف واذن وحنجرة
6	534	4	3	45	45	Ophalmology	العيون
7	535	2	2	15	20	Dermatology	الجلدية
8	536	3	3	30	30	Radiology	الاشعة
9	537	3	2	40	30	Gynecology	النسائية و التوليد
		43	32	471	430	المجموع	

المرحلة السادسة

	كود المادة	عدد الوحدات	عدد اسابيع التدريب السريري	The Subject	المادة
1	638	12	10اسابيع في الطب الباطني العام 2 أسبوع في الامراض النفسية والعصبية 10حلقات مناقشة بمعدل واحدة اسبوعيا	Internal Medicine	الطب الباطني
2	639	12	الجراحة العامة جراحة الكسور جراحة المجاري البولية 10حلقات مناقشة بمعدل واحدة اسبوعيا	Surgery	الجراحة
3	640	10	10اسابيع في ردهات النسائية والتوليد 10حلقات مناقشة بمعدل واحدة اسبوعيا	obstetric& Gynecology	النسائية و التوليد
4	641	10	8اسابيع في ردهات الاطفال 2اسبوع في مركز ارعاية الصحية الاولية 8حلقات مناقشة بمعدل واحدة اسبوعيا	Pediatric	طب الاطفال
		44		المجموع	

الفروع والشعب العلمية

مرتبة حسب تاريخ تأسيسها		
1	فرع التشريح	2004
2	فرع الكيمياء	2004
3	فرع الفسلجة	2005
4	فرع الاحياء المجهرية	2005
5	فرع الطب الباطني	2005
6	فرع الجراحة	2006
7	فرع طب الأطفال	2018
8	فرع الامراض والطب العدلي	2018
9	فرع النسائية	2018

فرع التشريح البشري

الاســم	اللقب العلمي	الشهادة	الاختصاص العام
د.ندى فاضل عبد المجيد الراوي	أستاذ مساعد	دكتوراه	علوم حياة / أحياء مجهريه
د. وليد حازم قاسم محمود الحجار	مدرس	دكتوراه	تشريح
د . زهراء عبد القادر طابو عمر	مدرس	دكتوراه	تشريح
د. ايمان غانم شيت جرجيس الحيالي	مدرس	دكتوراه	تشريح
د. اروى حمزة عباس عليخ الخفاجي	مدرس	دكتوراه	علوم حياة /احياء مجهرية
د. غادة صديق رسول حسن	مدرس	دكتوراه	علوم حياة/ وراثة جزيئية
د. تقى مؤيد محمد عثمان الصواف	مدرس	دكتوراه	احياء مجهرية
عبير حازم شهاب احمد الخفاف	مدرس	ماجستير	علوم حياة /احياء مجهرية
محمد لقمان جرجيس محمد	مدرس مساعد	ماجستير	علم الأجنة والتقنيات المساعدة على الإنجاب
وليد إسماعيل يوسف داؤد اغا	مدرس مساعد	ماجستير	علوم حياة
انمار امير محمد صادق الرواس	مدرس مساعد	ماجستير	احياء مجهرية
رشا اسماعيل خليل ابراهيم	مدرس مساعد	ماجستير	علوم حياة / نبات
رغد نبهان عبدالقادر ابراهيم	مدرس مساعد	ماجستير	علوم حياة

الاسم	العنوان الوظيفي	الشهادة	الاختصاص العام
دعاء عبدالله خضر سلطان	طبيب بيطري اقدم	بكالوريوس	طب بيطري
هديل سالم عبدالله السوفجي	رئيس بايولوجيين	بكالوريوس	علوم حياة
فراس غانم فتوحي محروم	مدير فني	دبلوم فني	انتاج نباتي
ياسر حامد ذنون درويش الطائي	رئيس بايولوجيين اقدم	بكالوريوس	بايولوجي
اسراء خالد نافع مصطفى الخيرو	م. باحث صحة وبيئة	بكالوريوس	علوم بيئة
تمارة نهاد قاسم حميد الطويل	معاون بايولوجي	بكالوريوس	علوم حياة

فرع الكيمياء والكيمياء الحياتية

الاســم	اللقب العلمي	الشهادة	الاختصاص العام / الدقيق
د.محمد عبدالغفور احمد يونس القطان	استاذ	دكتوراه	صيدلة / البايولوجي الجزيئي وعلم الخلايا الجذعية
د.بسام ادوار حنا توما الساعور	استاذ مساعد	بورد عراقي	طب وجراحة عامة / علم الامراض / كيمياء مرضية

د.تماضر عباس حمودي البطاح	استاذ مساعد	دكتوراه	علوم كيمياء / علوم كيمياء تحليلية
د.أسامة ميسر محمود داؤد السبعاوي	مدرس	دكتوراه	علوم كيمياء / علوم كيمياء حياتية
د.خالص محمد شحاذة عطية	مدرس مساعد	دكتوراه	علوم كيمياء / علوم كيمياء حياتية
نغم فارس خليل عموري العموري	مدرس مساعد	ماجستير	طب وجراحة عامة / كيمياء حيوية سريرية
مصعب عسكر طه احمد الزبيدي	مدرس مساعد	ماجستير	علوم كيمياء / علوم كيمياء حياتية
مهيمن عبدالمنعم عبدالكريم	مدرس مساعد	ماجستير	علوم كيمياء / علوم كيمياء عضوية
انسام عبدالغفور حسن كنعان	مدرس مساعد	ماجستير	طب وجراحة بيطرية / كيمياء حياتية بيطرية
سارة عبدالاله يونس محمد	مدرس مساعد	ماجستير	تربية كيمياء / تربية كيمياء حياتية
منهل جلال صالح احمد	مدرس مساعد	ماجستير	تربية كيمياء / علوم كيمياء حياتية
اسماء حمزة عباس حسين	مدرس مساعد	ماجستير	تربية كيمياء / تربية كيمياء تحليلية
سوزان صدقي سليم حميد	مدرس مساعد	ماجستير	علوم كيمياء / علوم كيمياء عضوية
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص العام**
سفانة يوسف محمد مصطفى	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
حنيفة محمد صالح حسين ياسين	طبيب مقيم دوري اقدم	بكالوريوس	طب وجراحة عامة
نور قبس سعيد امين الجليلي	رئيس كيمياويين	بكالوريوس	علوم كيمياء
عمر حازم محمد حسين المولى	رئيس كيمياويين	بكالوريوس	تربية كيمياء
رؤى يحيى قاسم حميد الدرزي	م. رئيس كيمياويين	بكالوريوس	علوم كيمياء
شريف اركان شريف العركوب	كيمياوي	بكالوريوس	علوم كيمياء
علي احمد سلو	م. كيمياوي	بكالوريوس	تربية كيمياء
السيدة ندى ادريس ابراهيم الساعاتي	رئيس حرفيين	متوسطة	
فرع الفسلجة			
د. قاسم صالح عبدالله صالح النعيمي	استاذ مساعد	دكتوراه	علم الادوية
د.خالد غانم مجيد أرحيم الغبشة	استاذ مساعد	دكتوراه	علوم / فيزياء
د .شيماء عبد الهادي جاسم محمد	مدرس	دكتوراه	طب / فسلجة طبية
د.سجى ناظم محمد عبد الله شنشل	مدرس	دكتوراه	علوم حياة / امراض سرطان
شهباء عبد الرحمن عبد الوهاب موسى	مدرس	ماجستير	طب / أدوية

هناء عبد القادر خضر احمد الخياط	مدرس	ماجستير	طب / فسلجة طبية
دمنار جورج عبد الاحد جرجيس	مدرس مساعد	ماجستير	طب / فسلجة طبية
سيف الدين عامر احمد سلطان	مدرس مساعد	ماجستير	تربية علوم صرفة / فيزياء
هبه خالد حاتم صالح الهاشمي	مدرس مساعد	ماجستير	طب / فسلجة طبية
عبدالوهاب ابراهيم غزال عواد	مدرس مساعد	ماجستير	علوم فيزياء
محمد سالم محمد ابراهيم الطائي	مدرس مساعد	ماجستير	فيزياء طبية
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص العام**
نور خميس فتحي علي الغرب	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
زينة طارق سالم احمد حامد	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
بلال بسام انور عبدالرزاق اغوان	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة
نمير مازن زكي	طالب دراسات / ماجستير	بكالوريوس	صيدلة
فرع الاحياء المجهرية			
د. صبا عبد السلام حامد مصطفى	أستاذ مساعد	دكتوراه / علوم	أحياء مجهرية/ بكتريا
د . علي عباس عبدالكريم محمد	مدرس	دكتوراه	أحياء مجهرية طبية / مناعة
د. عبدالرحمن دحام عبدالهادي	مدرس	دكتوراه	أحياء مجهرية / فايروسات
د. محمد أمير عبد الله محمد	مدرس	دكتوراه / علوم	أحياء مجهرية/ بكتريا
كوثر عبدالمطلب محمد	مدرس	ماجستير/ علوم	أحياء مجهرية
ايمان محمد مجيد قدو قبع	مدرس مساعد	ماجستير/ طب	احياء مجهرية طبية
نعم نافع جميل محمود الخياط	مدرس مساعد	ماجستير/ طب	احياء مجهرية طبية
ياسين ماجد سلمان مدب	مدرس مساعد	ماجستير/ تربية	علوم حياة / طفيليات
نور عبد الحافظ جرجيس	مدرس مساعد	ماجستير / تربية	علوم حياة / نبات
فرح يوسف كداوي محمد	مدرس مساعد	ماجستير / علوم	علوم حياة / نبات
داليا صالح مصطفى صالح	مدرس مساعد	ماجستير/ علوم	علوم حياة / طفيليات
سنان خالد عبود جاسم	مدرس مساعد	ماجستير/ علوم	علوم حياة / طفيليات
د. حنان مازن صديق محمد علي	طبيب ممارس بفرع	بورد عراقي	احياء مجهرية و مناعة سريرية
بسم خليل ناصر حسين	رئيس بايولوجيين	بكالوريوس	تربية علوم حياة

رشا لقمان عبدالغني	مساعد مختبر	دبلوم \ معهد طبي	تقنيات مختبرات طبية

فرع الطب الباطني				
الاسـم	اللقب العلمي	الشهادة	الاختصاص العام	الاختصاص الدقيق
د.وسيم هاشم قاسم سلطان الخفاف	أستاذ مساعد	بورد عراقي	طب باطني	طب الجملة العصبية
د.احمد مؤيد حسين مجيد الحسيني	أستاذ مساعد	بورد عراقي وعربي	طب باطني	أمراض القلب
د.مقدام محمد عبيد علي الجميلي	أستاذ مساعد	بورد عربي	طب باطني	--------
د. بسام اسماعيل جاسم الزهيري	مدرس	بورد عربي	طب باطني	أمراض الدم والأورام
د.فارس محمود لولان علي الحيالي	مدرس	بورد عراقي	طب باطني	امراض القلب
د.عبدالله شاكر محمود صالح السبعاوي	مدرس	بورد عراقي	طب باطني	طب الجملة العصبية
د.علي ستار جبار ناصر القيسي	مدرس	بورد عربي	طب باطني	--------
د.احمد محمد سعيد عبد الله شرو	مدرس	بورد عربي	طب باطني	امراض القلب
د.علاء محمد علي حسن البياتي	مدرس	بورد عراقي	طب باطني	--------
د.رند وليد وعد الله علي الاطوي	طبيب ممارس بفرع	بورد عربي	طب باطني	اكملت البورد وبانتظار الامر الجامعي باللقب العلمي في اختصاص الطب الباطني
شعبة الجلدية				
هيثم بدر فتحي محمد البدراني	أستاذ مساعد	د.	طب وجراحة عامة	جلدية
د.محمد نبيل صديق مصطفى الملاح	مدرس	بورد عربي	طب وجراحة عامة	جلدية
منار غانم عزيز صالح عزو العكيدي	مدرس	بورد عراقي	طب وجراحة عامة	جلدية
عمر يونس عبد الله وحيد العبيدي	مدرس مساعد	ماجستير	طب وجراحة عامة	جلدية
مصطفى نور الدين عبدالقادر	مدرس مساعد	ماجستير	طب وجراحة عامة	جلدية
شعبة طب المجتمع				
د.آمنة عامر محمد يحيى الخياط	مدرس	بورد عراقي	طب وجراحة عامة	طب مجتمع
د.هدى عباس فاضل كاظم الصفار	مدرس	بورد عراقي	طب وجراحة عامة	طب مجتمع
د.ظلال احمد ذياب علاوي الجميلي	مدرس	بورد عراقي	طب وجراحة عامة	طب اسرة
د.احمد حكمت شاكر يونس البكري	مدرس	بورد عراقي	طب وجراحة عامة	طب اسرة
زهراء طارق محمد الخفاف	مدرس مساعد	ماجستير	علوم حاسبات ورياضيات / احصاء	علوم حاسبات ورياضيات / احصاء
د.جمانة خير الدين عبدالقادر أسماعيل	طبيب ممارس بفرع	بورد عربي	طب وجراحة عامة	اكملت البورد وبانتظار الامر الجامعي باللقب

				العلمي باختصاص طب الاسرة
د.سارة عبدالحميد فتحي حميدي	طبيب ممارس بفرع	بورد عراقي	طب وجراحة عامة	اكملت البورد وبانتظار الامر الجامعي باللقب العلمي باختصاص طب الاسرة
وحدة الحاسبة				
زينة عبد السلام صبحي خضر	مدرس مساعد	ماجستير	علوم الحاسبات والرياضيات	ماجستير رياضيات حاسوبية
راوية محمد وجيه جرجيس	مدرس مساعد	ماجستير	ادارة واقتصاد	نظم معلومات ادارية
الاء ابراهيم خليل حمودي	رئيس مبرمجين اقدم	بكالوريوس	علوم الحاسبات والرياضيات	----------
مادة السلوكية				
د. جنان سعيد احمد محمد الرحو	استاذ مساعد	دكتوراه	علوم تربوية ونفسية	شخصية وصحة نفسية
مادة اللغة الانكليزية				
ابراهيم نشوان سالم	مدرس مساعد	ماجستير	اداب / لغة انكليزية	اللغة الانكليزية وادابها
منتسبي الفرع من المقيمين وطلبة البورد				
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص**	**الملاحظات**
رؤى سالم محمود احمد النعيمي	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالبة دراسات مفاصل
ميس نجدت شكر علي الصالح	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالبة دراسات مفاصل
محمد حامد الياس خضر الحسن	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالب دراسات مفاصل
رحمة أكرم رشاد احمد الخيرو	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالبة دراسات باطنية
محمد وعد شكر محمود العكيدي	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالب دراسات جلدية
ميسرة زهير سعيد عبدالرزاق الوتار	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	طالب دراسات باطنية
احمد حمزة محمد علي حسين	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	مقبول دراسات باطنية
حسين أقدام حميد خضر الحنو	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	مقبول دراسات تنفسية
سلمان ياسر محسن ابراهيم	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	مقبول دراسات طب الجملة العصبية
حسين نزار يحيى حسين زلمه	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	مقدم على الدراسات العليا في الطب الباطني
سدرة عبد الجبار مهدي الدباغ	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة	مقدمة على الدراسات العليا في طب الاسرة
ايمان حامد احمد محمد الحديدي	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة	مقعد طب نفسي
مصطفى خالد نافع مصطفى الخيرو	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة	مقعد مفاصل
احمد سالم حسن عبد الرحمن الخفاجي	طبيب مقيم	بكالوريوس	طب وجراحة عامة	مقعد طب باطني

	دوري			
يوسف اسعد سعيد يعقوب القروط	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة	مقعد طب باطني
محمد عدنان خضر محمد القولماني	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة	مقعد طب نفسي
منتسبين اخرين				
لبنى سعيد احمد الصالح	مدرس مساعد	ماجستير	ادارة واقتصاد/ ادارة اعمال	
محمد حميد ابراهيم منصور	مدرس مساعد	ماجستير	ادارة واقتصاد / محاسبة	
مارية عباس عبدالكريم محمد	م.مهندس	بكالوريوس	هندسة الحاسوب والمعلوماتية	
شيماء حمد الله خلف خليل	م.مهندس	بكالوريوس	هندسة الحاسوب والمعلوماتية	

فرع الجراحة

الاســم	اللقب العلمي	الشهادة	الاختصاص العام	الاختصاص الدقيق
د. أسامة إسماعيل خضر عثمان	أستاذ	بورد عراقي	جراحة	جراحة أطفال
د. عزاوي مصطفى حادي عبدالله	أستاذ	بورد عراقي	جراحة	جراحة مسالك بولية
د.طه حسن طه حسن العلاوي	أستاذ	بورد عراقي	جراحة	جراحة عامة
د. محمد فوزي احمد عزت الشهواني	أستاذ مساعد	بورد عراقي	جراحة	جراحة المسالك البولية
د. سعد موفق عطاش حسن الطائي	استاذ مساعد	بورد عربي	جراحة	جراحة عامة
د.بسام خليل يونس سليمان العباسي	استاذ مساعد	بورد عراقي	جراحة	جراحة أطفال
د. فواز محمود مصطفى حسين	أستاذ مساعد	بورد عراقي	جراحة	جراحة الصدر والقلب/ والاوعية الدموية
د. مؤمن جنيد سالم فائق الدبوني	أستاذ مساعد	بورد عربي	جراحة	جراحة مسالك بولية
د0 مثنى هاشم داوود حموشي	مدرس	بورد عراقي	جراحة	جراحة العظام والكسور
د. سعد يونس سليمان حسن الغبشة	مدرس	بورد عراقي	جراحة	انف وأذن وحنجرة
د. يحيى ضبيان محمود مصطفى زكريا	مدرس	بورد عربي	جراحة	جراحة أورام
د. علي خيرالدين محي الدين ذنون	مدرس	بورد عراقي	جراحة	جراحة عظام وكسور
د. بشار اياد سعيد عبدالله الحيالي	مدرس	بورد عربي	جراحة	طب العيون وجراحتها
د. محمد هشام محمد محمود	مدرس	بورد عربي	جراحة عامة	
د. محمد قحطان بشير إبراهيم	مدرس	بورد عربي	طب العيون وجراحتها	
د. اشرف مزاحم مجيد شهاب الشاكر	مدرس	بورد عربي	جراحة عامة	
د. عماد ناظم أمين محمد الكواز	مدرس	بورد عراقي	جراحة أذن وانف وحنجرة	
د. عبدالرحمن محمد قاسم محمد شحادة	مدرس	بورد عربي	جراحة العيون	
د. فاروق مكي عبد الكريم ذنون	مدرس	بورد عراقي	جراحة الكسور والعظام	
د.فيصل سعود شعير عويد الجغيفي	مدرس	بورد عراقي	جراحة تجميلية	
د. أوس محمد ثابت قاسم طه النعيمي	مدرس	بورد عربي	جراحة الجملة العصبية	

د. وسام سعود احمد دهام الجبوري	مدرس	بورد عراقي	جراحة الجهاز الهظمي والكبد
د. علاء جميل تركي حمادي	مدرس	بورد عربي	جراحة المسالك البولية
د. شعلان مفلح درك حديد	طبيب اختصاص	بورد عربي	جراحة اذن و انف و حنجرة

الاسم	العنوان الوظيفي	الشهادة	الاختصاص العام
د.اوس معن نوري يحيي الجمال	طبيب اختصاص	بورد عربي	جراحة عيون
د.يوسف سلامة جمعة محمد الجبوري	طبيب اختصاص	بورد عراقي	جراحة أنف واذن وحنجرة
حارث وليد قاسم يحيى حاج محمود	طبيب مقيم اقدم	بكالوريوس	جراحة الكسور
اشرف اكرم حميد احمد العلاف	طبيب مقيم اقدم	بكالوريوس	جراحة عامة
زينب خالد محمد سعيد المعلم	طبيب مقيم اقدم	بكالوريوس	تخدير و عناية مركزة
ليث احمد رمضان مصطفى الجبوري	طبيب مقيم اقدم	بكالوريوس	جراحة عامة
محمد احمد جاسم عطية الجبوري	طبيب مقيم اقدم	بكالوريوس	جراحة عامة
عماد صلاح حمادي علي الدليمي	طبيب مقيم اقدم	بكالوريوس	جراحة العيون
ايمن امين رمضان جاسم السليفاني	طبيب مقيم دوري	بكالوريوس	جراحة المسالك البولية
اسامة محمد جاسم حمد المفرجي	طبيب مقيم دوري	بكالوريوس	جراحة الاذن والانف والحنجرة
اوس نوار محمود عبدالمحروق	طبيب مقيم دوري	بكالوريوس	جراحة الكسور والعظام
عبدالرحمن نوفل عبدالكريم محمود	طبيب مقيم دوري	بكالوريوس	جراحة العيون
عمر باسم محمد عبدالله النعيمي	طبيب مقيم دوري	بكالوريوس	التخدير والعناية المركزة
طيبة عبدالمحسن محمد علي حسن	طبيب مقيم دوري	بكالوريوس	جراحة عامة
ايلاف مطيع سعدي عبد الله	طبيب مقيم دوري	بكالوريوس	جراحة عامة
عبد الستار محمد احمد عبد الله الوكاع	طبيب مقيم دوري	بكالوريوس	جراحة عامة

شعبة الاشعة

الاســم	اللقب العلمي	الشهادة	الاختصاص العام
د. عبير ولي احمد عيسى الرشيد	استاذ مساعد	بورد عربي	أشعة تشخيصية
د.رشا نديم احمد رمضان الحمداني	استاذ مساعد	بورد عربي	أشعة تشخيصية
د0 زهراء سالم شريف عبد الباقي	مدرس	بورد عربي	أشعة تشخيصية
د0 آلاء حكمت يونس مجيد الطائي	مدرس	بورد عربي	أشعة تشخيصية
د. احمد مذخر شريف الغبشة	مدرس	بورد عربي	أشعة تشخيصية
د.محمد ميسر نايف محمد الفارس	مدرس	بورد عربي	اشعة تشخيصية

فرع طب الأطفال

د.نشوان مصطفى سليمان حافظ الحافظ	استاذ	بورد عراقي	اطفال
د.يسرى احمد حسين حماوي الحيالي	استاذ مساعد	بورد عربي	اطفال
د. بشار شاكر مصطفى احمد الحمداني	أستاذ مساعد	بورد عراقي	اطفال
د. خليل ابراهيم محمود خلف السويفي	أستاذ مساعد	بورد عراقي	اطفال
د. علي عادل شريف زيدان الرعاش	مدرس	بورد عراقي	اطفال
د. أسيل سامي نوح موسى آل ملا خضير	مدرس	بورد عراقي	اطفال
د. إيمان عصام محمد فرج الأحمد	مدرس	بورد عربي	اطفال
د. إيمان شاكر محمود صالح السبعاوي	مدرس	بورد عربي	اطفال

د. احمد خليل ابراهيم حامد النمر	مدرس	بورد عربي	اطفال
د.رؤى فيصل محمد صفو الحلاوجي	مدرس	بورد عربي	اطفال
د. مصعب مازن خليل عموري العموري	مدرس	بورد عراقي	اطفال
د. أسيل سامي نوح موسى آل ملا خضير	مدرس	بورد عراقي	اطفال
د. إيمان عصام محمد فرج الأحمد	مدرس	بورد عربي	اطفال
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص العام**
سحر صالح طه حمادي البدراني	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
رؤى رعد عبد الرحمن داؤود ال ياسين	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
نسيم خضر الياس خدر الحمادي	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة
اسامة محمد احمد سليم اغوان	طبيب مقيم اقدم	بكالوريوس	طب وجراحة عامة

فرع علم الامراض والطب العدلي

الاســم	اللقب العلمي	الشهادة	الاختصاص العام
د. شذى ذنون احمد محمد الحمداني	أستاذ	دكتوراه طب	علم الأمراض النسيجي
د. احسان محمود عبد الله محمود	أستاذ مساعد	بورد عراقي	امراض نسيجية
د. نزار محمد طاهر جوهر النجار	أستاذ مساعد	بورد اردني	علم الأمراض النسيجي
د. زينب وليد عزيز خليل الحيالي	استاذ مساعد	بورد عراقي	علم الأمراض النسيجي
د. رضوان خضر محمد علي الجماس	مدرس	بورد عراقي	علم الأمراض النسيجي
د. هديل تحسين علي سعيد العبيدي	مدرس	بورد عربي	علم الأمراض النسيجي
د. اروى رياض خليل داؤود البرهاوي	مدرس	بورد عربي	علم الأمراض النسيجي
د.أسماء محمد شيت محمود داؤد الحيالي	مدرس	بورد عراقي	علم الأمراض النسيجي
د. زهراء اسامة يحيى حسين الحيالي	مدرس	بورد عراقي	علم الأمراض النسيجي
د. عبير وليد سعيد قاسم العبيدي	مدرس	بورد عراقي	علم الامراض النسيجي
سرى أبي سعيد احمد الديوه جي	مدرس مساعد	ماجستير طب	أمراض الدم
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص العام**
د. داليا عبدالعزيز محمود مصطفى	طبيب مقيم اقدم	بورد عراقي	علم الأمراض النسيجي
د. رغد يعرب احمد محمود الزبيدي	طبيب مقيم اقدم	بكالوريوس	طب وجراحة
د0 رحمة رائد صباح قاسم العبيدي	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة
عبد الرزاق نائل نذير جاسم الحافظ	طبيب مقيم دوري	بكالوريوس	طب وجراحة عامة

فرع النسائية والتوليد

الاســم	اللقب العلمي	الشهادة	الاختصاص العام
د. يسرى طاهر جرجيس معروف المعروف	استاذ مساعد	بورد عراقي	نسائية وتوليد
د. ذكاء عباس احمد عبد القادر الجوادي	استاذ مساعد	بورد عراقي	نسائية وتوليد
د. شيماء حازم يونس سليمان الطيار	مدرس	بورد عراقي	نسائية وتوليد
د. هبة نوري سعيد عبدالله الراوجي	مدرس	بورد عربي	نسائية وتوليد

د. داليا مظفر عبد الرحمن عبدالله الشهواني	مدرس	بورد عراقي	نسائية وتوليد
د. تهاني علي عزيز احمد العبيدي	مدرس	بورد عربي	نسائية وتوليد
د. ميس رافع عزيز خليل اليونسي	مدرس	بورد عربي	نسائية وتوليد
د. فاطمة وليد خالد محمد الكوياني	مدرس	بورد عربي	نسائية وتوليد
الاسم	**العنوان الوظيفي**	**الشهادة**	**الاختصاص العام**
د.زهراء رياض عبد اللطيف عبد الرحمن	طبيب اختصاص	بورد عربي	نسائية وتوليد
د. أسيل سالم ابراهيم محمود الطائي	طبيب اختصاص	بورد عربي	نسائية وتوليد
د. شهد شهاب احمد خليل امين	طبيب اختصاص	بورد عراقي	نسائية وتوليد
د. ذكرى علي محمد بدر الجبوري	مقيم اقدم	دبلوم عالي	نسائية وتوليد
نورا نبيل هادي بطرس ايشوع	مقيم اقدم	بكالوريوس	نسائية وتوليد
حنين جسام حازم عبد الخياط	مقيم اقدم	بكالوريوس	نسائية وتوليد
رسل احمد علي محمد الحيالي	مقيم اقدم	بكالوريوس	نسائية وتوليد
شيماء سمير شيت طه المشهداني	مقيم اقدم	بكالوريوس	نسائية وتوليد
مي قصي وعد الله حسن الحبه	طبيب مقيم دوري	بكالوريوس	نسائية وتوليد
مريم رعد حليم سلطان السعيدي	طبيب مقيم دوري	بكالوريوس	نسائية وتوليد

College of medicine _ Ninevah University

First Year Curriculum

منهاج المرحلة الاولى

المرحلة الأولى							
	المادة	The Subject	النظري	العملي	المناقشة	عدد الوحدات	كود المادة
1	الفيزياء الطبية	Medical Physics	45	60	15	5	101
2	الحاسبات	Computor	30	60		4	102
3	اساسيات الطب	Basics of Medicine	30			2	103
4	التشريح	Anatomy	60	120		8	104
5	الاحياء الطبية	Biology	60	60	15	6	105
6	الكيمياء الطبية	Medical chemistry	60	60		6	106
7	حقوق الانسان والديمقراطية	Human Rights and Democracy	30			2	107
8	الانكليزي	English	30			2	107u
		المجموع	345	360	30	35	

2023_2024

Medical Physics for the first year

1.General Information:

- **Subject**: Medical Physics
- **Code**: (1 01)
- **Credit hours**: 5 units(90 theortical hours+ 60 practical hours and 30 hours discussion)
- **Course Language**: English.

2.Syllabus:

Theory:

-Forces on the Body

- Forces on the body: statics and dynamics.
- The forces involved with muscles, bones, and tendons.
- Friction and the energy loss due to friction in various contexts.
- Forces on the body during acceleration and deceleration.
- Apparent changes in body weight.
- Changes in internal hydrostatic pressure and distortion of elastic tissues in the body.

- Physics of the Skeleton

- The bone system of the body dealing with static and dynamic loading during activities like standing, walking, running, and lifting.
- Functions of bones in the body, bone composition, and bone tumors.
- Stress in bones and the advantages of trabecular bone over compact bone.
- Mechanical properties of bones, density of compact bone.
- Details on the growth and repair of bones, and physical techniques for measuring bone mineral density in vivo activation.

-Energy, Work, and Power of the Body

- Basal conditions and the body's basic energy sources.
- Mathematical relationships between changes in stored energy, heat lost or gained, and work done by the body over time.
- Typical energy consumption and basal metabolic rate (BMR).
- Efficiency of the human body as a machine.
- Methods of heat loss through evaporation.

-Pressure

- Definition of pressure and measurement of negative and positive pressures.
- Measurement of pressure in the body.
- Use of sphygmomanometers and pressure measurement inside the skull.
- Hydrocephalus, eye pressure, tonometers, and pressure in the digestive system.
- Measurement of bladder pressure via a catheter with a pressure sensor.
- Carbon monoxide poisoning and effects on red blood cells.

-The Physics of the Lungs and Breathing

- Composition of inspired and expired air.
- Definition and properties of alveoli.
- Mechanisms for clearing airways of foreign particles.
- Physics of gas exchange between lungs and blood.
- Factors affecting alveolar pressure.
- Measurement of airway resistance and work of breathing.
- Physical causes of common lung diseases.

-Physics of the Cardiovascular System

- Composition and function of the heart, and comparison between right and left sides.
- Calculation of the work done by the heart.
- Korotkoff sounds and factors affecting arterial wall tension.
- Relationship between blood velocity and artery cross-section.
- Factors affecting blood flow rate in arteries.
- Comparison between laminar and turbulent blood flow.
- Critical velocity of blood.
- Causes of heart sounds heard with a stethoscope.
- Physical causes of cardiovascular diseases.

-Electricity Within the Body

- Origin of electricity generated in the body.
- Physical principles of (ECG, EMG, EEG, EOG, ERG, and MCG).

- Resting and action potentials, myelinated and unmyelinated nerves.
- Factors affecting the speed of action potential propagation.
- Augmented lead configurations in ECG.

-Physics of Diagnostic X-Rays

- Three major branches of radiology.
- Main components of modern X-ray units.
- Absorption, attenuation of X-rays, and absorption coefficients.
- X-ray imaging, intensifying screens, and contrast media.
- Original CAT scan unit.
- Disadvantages of xeroradiography and the iconography system.

-Sound in Medicine

- Audible sound range and clinical use of ultrasound.
- Relationship between frequency, wavelength, and velocity of sound waves.
- Energy carried by sound waves and their energy loss in tissue.
- Use of a stethoscope to record chest sounds.
- Use of transducers and sonar principles in ultrasound diagnostics.

Practical Labs:

1- Density of a liquid

2- Peak expiratory flow rate (PEFR)

3- Screening using Dexa Scaning

4- Surface tension of water

5- Viscosity of a liquid

6- Terminal velocity

7- Specific heat of a solid material

8- Newton's law of cooling

9- Pressure of saturation vapor

10- Refractive index

11- Real and apparent depths of liquid

12- Refractive index of a liquid

13- Velocity of sound

14- Determination of low resistance

3.Learning Objective:

Learning Objectives for a Medical Physics

Knowledge:

- **Full understanding of communication skills** between the student and the professor and with colleagues in the medical field.
- **Understanding normal body functions**, enabling more effective handling of abnormal conditions and facilitating new discoveries in diagnosis and treatment.

Skills:

- **Acquiring skills in practical laboratory applications** and using modern scientific methods through practical work.

Attitudes:

- **Empathy and Compassion:** Students will exhibit empathy and compassion in their interactions with patients and their families.
- **Professionalism:** Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity:** Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of medical physics, including fundamental principles, clinical applications, medical imaging techniques, and radiation therapy.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in medical physics.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of assessments and interventions related to medical physics, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately utilize medical physics techniques to diagnose various conditions and develop management plans.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in medical physics, prioritizing the well-being and rights of patients.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in medical physics.

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: Two hours per week (first semester)
  - Weekly Hours: one hour per week (second semester)
  - Total: 45 hours per academic year

For the practical part:

- Weekly Hours: Two hours per week (first semester)
- Weekly Hours: Two hours per week (second semester)
- Total: 60 hours per academic year

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: Medical Physics Laboratory

- **Format**:

- **Theoretical Part:** A systematic explanation of the course topics, emphasizing the most important concepts. The student acquires basic scientific knowledge through lectures, which is complemented by self-study of the subject's themes.
- **Practical Part**: Laboratory sessions for observation and performing procedures, practical learning of physical techniques, and their medical applications. Group work and active self-learning are encouraged.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams.
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-*Components of Assessment:*

- Mid-Year Practical Exam: 8% of the total grade
- Mid-Year Theoretical Exam: 30% of the total grade
- Short Quizzes: 2% throughout the year
- Final Practical Exam: 15% of the total grade
- Final Theoretical Exam: 45% of the total grade

-Detailed Breakdown

- **Theoretical Exams:**
  - **Midterm Exam: 15% (covers topics from the first half of the course, includes multiple-choice questions and short answer questions)**
  - **Final Exam: 45% (covers the entire course content, includes multiple-choice questions and short answer questions)**
- **Practical Exams:**
  - **Midterm Exam: 8% (assessed by practical experiments and procedures performed)**
  - **Final Exam: 15% (assessed by practical experiments and procedures performed)**
- **TBL Quizzes**
  Throughout the year (2%) : Including (MCQ and problem solving questions)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations, peer evaluations.
- **Blueprints of mid-year, final exam or any other exam if available**.

Medical Physics / Blue print / Final Exam. 2023-2024
Total MCQ = 70

Subject	Remembering questions	Understanding questions	Problem solving questions
Energy, work and power of the body	6	2	
Physics of Diagnostic x- ray	8	4	
Pressure in Medicine	10	3	
electricity within the body	12	5	
Physics of the Cardiovascular System	14	6	
Total = 70			

6.Instructional Objective of the lectures:

Lecture title	No. Of lectures	Faculty member	Instructional objective
Forces on and in the Body		**Dr. khaled Ghanem**	• Understand the principles of forces acting on the human body during static and dynamic situations. • Explain the effects of external forces on human movement and stability. • Analyze the internal forces within the body and their role in maintaining structural integrity.
Physics of the Skeleton		**Dr. khaled Ghanem**	• Describe the mechanical properties of bones and their role in supporting the body. • Explain the principles of bone biomechanics and their implications in injury prevention and treatment. • Understand the effects of external forces on bone structure and function.
Energy, Work,		**Dr. khaled Ghanem**	• Define energy, work, and power in the context of human physiology. • Explain the conversion of energy within the

and Power of the Body			body during different activities. • Analyze the relationship between energy expenditure, work done, and power output during physical activities.
Pressure		**Dr. khaled Ghanem**	• Define pressure and its units. • Explain the concept of pressure in fluids and its application in physiological systems. • Understand the effects of pressure changes on body fluids and tissues.
The Physics of the Lungs and Breathing		**Dr. khaled Ghanem**	• Describe the mechanics of breathing and the role of the respiratory system in gas exchange. • Explain the principles of airflow, lung volumes, and capacities. • Understand the factors affecting lung compliance and resistance.
Physics of the Cardiovascular System		**Dr. khaled Ghanem**	• Describe the physics principles underlying blood flow, pressure, and resistance in the cardiovascular system. • Explain the mechanics of cardiac function, including heart contraction and relaxation. • Understand the relationship between cardiovascular physiology and hemodynamics
Electricity Within the Body		**Dr. khaled Ghanem**	• Explain the physiological basis of bioelectricity in the human body. • Describe the generation and propagation of electrical signals in nerve and muscle cells. • Understand the role of bioelectricity in physiological processes such as nerve conduction and muscle contraction.
Sound in Medicine		**Assist. Lect. Saif Al-Din Amer**	• Describe the principles of sound wave propagation and its interaction with tissues. • Explain the use of sound waves in medical imaging techniques such as ultrasound. • Understand the applications of sound in diagnosing and treating medical conditions.

Physics of Diagnostic X-Rays		**Dr. khaled Ghanem**	• Explain the principles of X-ray generation and interaction with matter. • Describe the components and operation of X-ray imaging systems. • Understand the risks and benefits associated with diagnostic X-ray procedures, including radiation safety measures.

7.Instructional objectives of the practical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	Practical Labs			• Describe the Medical Physics basis of various tests used to assess the functions of these systems and interpret the results obtained • to provide the students with necessary understanding of Medical Physics principles that will enable them to be good practicing physicians

8.Tables of the Course

جدول التدريس النظري للعام الدراسي 2024- 2025		
Chapter title	**Lecture title**	**Lecture**
Forces on and in the Body	**1. forces on the body: statics and dynamics. 2.The forces involved with muscles, bones and tendons. 3.Friction and the energy loss due to friction appear everywhere. 4.The forces on the body where acceleration or decelerations. 5.An apparent increase or decrease in body weight, 6.change in internal hydrostatic pressure, distortion of the elastic tissues of the body**	**Dr. khaled Ghanem**
Physics of the Skeleton	**1.the bones system of the body dealing with static and dynamic loading that occur during standing, walking, running, lifting and so forth.** **2. The functions of the bone in the body, the composition of the bone and bone tumors.** **3. Stress in a bone, the advantages of trabecular bone over compact bone.** **4.The mechanical properties of the bone, the density of the compact bone. 5. The details of the growth and repair of the bone physical technique of measuring bone mineral in vivo activation**	**Dr. khaled Ghanem**
Energy, Work, and Power of the Body	**1. the Basal conditions, the body's basic energy (fuel) source.** **2. The mathematical relation between the change in stored energy** **3. heat lost or gained and the work done by the body in some interval of time. 4.The typical person consumes energy, the basal metabolic rate (BMR)**	**Dr. khaled Ghanem**

	5.The efficiency of the human body as a machine **6 The method of heat loss with evaporation**	
Pressure	**1.the definition of pressure, measurement of negative and positive pressures. 2.Measurement of pressure in the body.** **3.Sphygmomanometer, measurement of pressure inside the skull,** **4. hydrocephalus, Eye pressure, tonometer's and the pressure in the digestive system. 5.Measurement of pressure in the urinary bladder by passing a catheter with a pressure sensor into the bladder through the urinary passage. 6.Carbon monoxide poisoning the red blood cells**	**Dr. khaled Ghanem**
The Physics of the Lungs and Breathing	**1.the composition of the air we inspire and expired air.** **2. The definition of alveoli, diameter and thick of alveoli.** **3. The two mechanisms in the body for clearing the airways of foreign particles.** **4. The physics involved in the exchange of gas between the lungs and the blood.** **5,The factors affecting the pressure inside the alveoli.** **6.Measurement of the airway resistance, work of breathing.** **7. The physical causes of some common lung diseases**	**Dr. khaled Ghanem**
Physics of the Cardiovascular System	**1.the composition of the heart, comparison between right and left sides of the heart.** **2. Calculation of the work done by the heart.** **3. Korotkoff sounds, the factors affecting the tension in the walls of an artery.**	**Dr. khaled Ghanem**

	4. The relationship between the velocity of blood and cross-section of an artery. **5. The factors affecting the flow rate of blood inside the artery. 6.comparisons between laminar and turbulent flows of blood.** **7 Critical velocity of blood.** **8.The causes of the heart sound heard with a stethoscope. 9.The physical causes of some cardiovascular diseases**	
Electricity Within the Body	**1.the origin of electricity generated inside the body,** **2. physical principles of (ECG, EMG, EEG, EOG, ERG and MCG). 3.Resting and action potentials. Myelinated and unmyelinated nerves.** **4. Two primary factors affecting the speed of propagation of the action potential.** **5. Three augmented lead configurations**	**Dr. khaled Ghanem**
Sound in Medicine	**1.the audible sound range, ultra sound using the ultrasound clinically in number of special ties.** **2. The relationship between the frequency of bib ration of the sound wave,** **3. the wavelength of the wave and the velocity of the sound wave.** **4.The energy carried by the wave. The loss of energy of a sound wave when it passes through tissue.** **5. Using the stethoscope to record many sounds from the chest region.** **6. The transducer, using the principles of sonar, sending pulses of ultrasound into the body**	**Assist. Lect. Saif Al-Din Amer**

Physics of Diagnostic X-Rays	1.the three major branches of the field of radiology. 2.The main components of a modern X-ray unit. 3.Absorption of X-ray , Attenuation of X-ray, absorption coefficients. 4. X-ray images. Intensifying screens, contrast media. 5.The original CAT scan unit. 6.The main disadvantage of xeroradiography, iconography system.	Dr. khaled Ghanem

الجدول العملي للفصل الاول		
No.	Title of experiment	Lecture
1.	Density of a liquid	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
2.	Surface tension of water	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
3.	Viscosity of a liquid	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
4.	Terminal velocity	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem

5.	Specific heat of a solid material	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
6.	Newton's law of cooling	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
7.	Determination of low resistance	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
	مراجعه	
	امتحان	

الجدول العملى للفصل الثانى		
No.	Title of experiment	Lecture
1.	Pressure of saturation vapor	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
2.	Peak expiratory flow rate(PEFR)	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer Assist. Lect. Abdulwahab Ibrahim Ghazal Assist. Lect. Mohammed Salem
3.	Screening using Dexa Scaning	Assist. Prof. Dr. Khaled Ghanem Assist. Lect. Saif Al-Din Amer

		Assist. Lect. Abdulwahab Ibrahim Ghazal **Assist. Lect. Mohammed Salem**
4.	**Refractive index**	**Assist. Prof. Dr. Khaled Ghanem** **Assist. Lect. Saif Al-Din Amer** **Assist. Lect. Abdulwahab Ibrahim Ghazal** **Assist. Lect. Mohammed Salem**
5.	**Real and apparent depths of liquid**	**Assist. Prof. Dr. Khaled Ghanem** **Assist. Lect. Saif Al-Din Amer** **Assist. Lect. Abdulwahab Ibrahim Ghazal** **Assist. Lect. Mohammed Salem**
6.	**Refractive index of a liquid**	**Assist. Prof. Dr. Khaled Ghanem** **Assist. Lect. Saif Al-Din Amer** **Assist. Lect. Abdulwahab Ibrahim Ghazal** **Assist. Lect. Mohammed Salem**
7.	**Velocity of sound**	**Assist. Prof. Dr. Khaled Ghanem** **Assist. Lect. Saif Al-Din Amer** **Assist. Lect. Abdulwahab Ibrahim Ghazal** **Assist. Lect. Mohammed Salem**
	مراجعه	
	امتحان	

9.Learning Resources

Textbooks: " Medical Physics " by Cameron, J R

Describes medical physics in a simple, straightforward manner. Discusses the physical principles involved in the control and function of organs and organ systems.

10.Additional Information

Contact: [Instructor's email and phone number]

Assist. Prof. Dr. Khaled Ghanem

khalid.majeed@uoninevah.edu.iq

07701750050

Location: Medical Physiology Department11.Appendix

Curriculum for Teaching Computer Science for First Grade

1. General information:

- Subject: Computer Science.
- Code :(1 02)
- Credit hours: 4 units (30 Theoretical hours , 60 Practical hours).
- Course languages: English.

2. Syllabus:

- Introduction/ Types of computers
- Basic concepts in information technology
- Hardware
- Input /Output tools
- Memory and Storage and Performance

❖ Types of memory

❖ Type of Storage devices

- Computer performance
- Software

❖ Type of Software

Windows 10

- Desktop
- The mouse
- Basic parts
- functions of the mouse(Pointing, clicking, and dragging)
- pointer
- Minimize, Maximize and Close
- Date & Time

Windows 10

- Task Bar
- The Start menu
- Add a Shortcut icon to the Start menu
- Removing a program icon from the Start menu
- Documents
- MY COMPUTER

Windows 10/

- The Icons and Shortcuts
- Create a Shortcut to the desktop
- Organize the desktop icons
- Hiding desktop icons
- The Recycle Bin
- Selecting Files
- Creating Folders
- Deleting Folders
- Copying Files or Folders
- Moving Files or Folders
- Changing the name of a File or Folder
- Arranging Folders

Windows 10/

- Configuring the Screen
- The background or wallpaper
- The screensaver

Windows 10/

- Configuring the Mouse
- The Buttons
- The pointer

Microsoft office word 2013 /

- Starting Microsoft Word
- Microsoft Word Element
- Microsoft Office Button
- Quick Access Toolbar
- Title Bar
- Ribbon
- Ruler
- Text Area
- Vertical and Horizontal and Vertical Scroll Bars
- Status Bar
- Working with Tex
- Delete Text:
- Select Text:
- Copy and Paste Text:
- Open a File
- Exit Word

Microsoft office word 2013 /

- Font
- change Font Size
- change Font face:
- change Font Color
- change the font style
- Bold, Italic, and Underline Commands
- Subscript
- Superscript
- Change the Text Case
- Preview a page before printing
- Print:
- Print via Quick Print:
- Text Alignment:
- Switch language
- Add Bullets and Numbers
- Undo and Redo

Microsoft office word 2013 /

- Spelling and grammar
- Find and Replace
- Page Layout
- Change Page Orientation
- Change the Paper Size
- Format Page Margin

Microsoft office word 2013/

- Tables
- Creating a table
- Insert a Blank Table
- Adding Text to a cell
- Add a Row Above an Existing Row
- Add a Column
- Delete a Row or Column
- Selecting a row
- Selecting a column
- Apply a Table Style
- Add a border
- Add shading
- Change text direction
- Merging and Splitting Cells
- Resize a table
- Move a table

- Resizing Column width:
- Resizing row Height:
- Auto Fit
- make multiple rows or columns the same size

Microsoft office word 2013/

- Insert Symbol
- Insert ClipArt
- Insert header &footer
- Insert Textbox
- Insert Picture
- Insert Shapes
- Delete Drawing Object
- Filling
- Line color

Microsoft office power point 2013 /

- Definition the power point
- start the Microsoft power point program
- Power point presentation
- Power point window
- Create a New slide using blank presentation
- Adding Theme to Slide
- Resizing the text boxes
- Changing the text font
- To change the font style:
- Underlining text
- Saving presentation
- Closing the current presentation

Microsoft office power point 2013 /

- Opening a presentation
- Adding New Slide
- Moving through slides
- Changing Theme of a slide
- Changing the layout of a slide

Microsoft office power point 2013 /

- Deleting a slides
- Duplicate a slide
- Change a slide background
- Create a New slide using template

Microsoft office power point 2013 /

- Viewing a Presentation
- Re-arranging
- Animation Effects

Microsoft office power point 2013/

- Transitions
- Rehearse Timing

Microsoft office Excel 2013 /

- Introduction
- Starting excel
- Over view of the user interface

Microsoft office Excel 2013/

- Workbook
- Formula bar
- Selecting cell, rows and column

Microsoft office Excel 2013/

- Working with worksheets
- Working with views
- Setting print area

Microsoft office Excel 2013/

- Entering data
- Filtering cells
- Working with charts
- Microsoft office Excel 2013/
- Using formula and functions
- Insert function

Internet/

- General Concept

Internet:

- Hypertext
- Word Wide Web(www)
- Web Site
- Home Page
- Start Page
- Hyper Text Transfer Protocol(HTTP
- Hyper Text Markup Language(HTML)

- File Transfer Protocol(FTP)

Internet/
- Connecting to The Internet
- Starting Internet Explorer
- The components of the Internet Explorer
- Hyperlinks
- Browser Icons
- Web Addresses

Internet/
- Changing the Start page
- Setting a New Start Page of your choice
- Turning off Graphics
- Closing and disconnecting
- Saving Web Addresses
- To Add A page to your Favorites menu
- Using Favorites
- Organizing Favorites
- Copying and Printing Text and Graphics
- Saving Web Pages
- Printing a page
- Search Engines

Internet/
- Mail Programs
- Email Characteristics
- How Dose E-mail Work
- E-Mail Address

3. Learning objective

❖ **Knowledge**

1. Fundamental Concepts

- Understand the basic concepts of algorithms and data structures.

- Grasp the principles of programming languages and their applications.

- Comprehend the architecture and organization of computer systems.

2. Theory

- Master the theoretical foundations of computing, including formal languages, automata theory, and computational complexity.

- Understand software engineering principles, including software development life cycles, testing, and maintenance.

3. Systems and Networks

- Gain knowledge of operating systems, including process management, memory management, and file systems.

- Understand the principles of computer networks, including protocols, network architecture, and cyber security.

4. Databases

- Comprehend database management systems, including relational databases, SQL, and data modeling.

5. Human-Computer Interaction

- Learn about the principles of user interface design and usability testing.

6. Emerging Technologies

- Stay informed about advancements in artificial intelligence, machine learning, big data, and cloud computing.

❖ **Skills**

1. Programming

- Develop proficiency in multiple programming languages (e.g., Python, Java, C++).

- Write efficient, readable, and maintainable code.

2. Problem Solving

- Apply algorithmic thinking to solve complex computational problems.

- Utilize data structures effectively to optimize solutions.

3. Project Development

- Plan, design, and implement software projects individually and in teams.

4. Analytical Skills

- Analyze and optimize algorithms for performance and scalability.

- Conduct rigorous testing and debugging of software applications.

5. Research

- Perform literature reviews and stay current with the latest research in computer science.

- Design and conduct experiments to evaluate new algorithms and systems.

6. Communication

- Present technical information clearly and concisely, both orally and in writing.

❖ **Attitudes**

1. Curiosity and Lifelong Learning

- Foster a continuous desire to learn new technologies and methodologies.

- Stay adaptable to evolving industry trends and innovations.

2. Ethical Responsibility

- Understand and apply ethical considerations in technology development and use.

- Recognize the societal impacts of computing, including privacy and security issues.

3. Collaboration

- Work effectively in multidisciplinary teams.

- Respect diverse perspectives and contribute constructively to group projects.

4. Critical Thinking

- Approach problems with a critical and analytical mindset.

- Evaluate the implications and consequences of technological solutions.

5. Attention to Detail

- Demonstrate meticulousness in coding, testing, and documentation.

- Ensure accuracy and precision in all technical work.

6. Resilience and Perseverance

- Show persistence in solving challenging problems.

- Learn from failures and continuously improve skills and knowledge.

4. Outcomes for Educational Programs

❖ **Knowledge**

1. Comprehensive Understanding of Core Concepts

- Graduates will demonstrate a solid grasp of algorithms, data structures, programming languages, and computer architecture.

2. Theoretical Proficiency

- Graduates will apply theoretical principles such as formal languages, automata theory, and computational complexity to practical and research problems.

3. Systems and Network Expertise

- Graduates will possess in-depth knowledge of operating systems, network protocols, cyber security measures, and database management.

4. Emerging Technologies Awareness

- Graduates will stay informed about and understand the applications of current and emerging technologies like AI, machine learning, big data, and cloud computing.

❖ **Skill**

1. Advanced Programming Skills

- Graduates will write clean, efficient, and well-documented code in multiple programming languages.

2. Effective Problem Solving

- Graduates will apply algorithmic thinking and data structures to design, implement, and optimize solutions for complex problems.

3. Project Management and Development

- Graduates will successfully manage and contribute to software development projects, utilizing tools such as version control and project management software.

4. Analytical and Research Skills

- Graduates will conduct rigorous analysis, testing, and debugging of software, and engage in research to innovate and improve computing practices

❖ **Attitude**

1. Commitment to Lifelong Learning

- Graduates will continually seek to update their skills and knowledge, adapting to the fast-paced changes in technology.

2. Ethical and Social Responsibility

- Graduates will apply ethical principles in their professional activities, considering the societal and environmental impacts of their work.

3. Collaborative Mindset

- Graduates will work effectively in diverse, interdisciplinary teams, valuing different perspectives and contributing positively to team dynamics.

4. Critical and Analytical Thinking

- Graduates will approach problems critically, evaluating multiple solutions and considering long-term consequences.

5. Couse Overview

- **The course is composed of two parts as follow**:

1. Theoretical part 2. Practical part

- **Duration:**

For Theoretical Teaching: Number of Weekly Hours:

- 1 hour per week in the first semester (15 hours)
- 1 hour per week in the second semester (15 hours)
- Grand Total: 30 hours per academic year

For Practical Teaching: Number of Weekly Hours:

- 2 hours per week in the first semester (30 hours)
- 2 hours per week in the second semester (30 hours)
- Grand Total: 60 hours per academic year

- The teaching scheduled for the first semester shall be at two levels, theoretical and

Practical.

- Teaching scheduled for the second semester shall be at two levels, theoretical and practical.

- **Location:**
  - The theoretical lecture takes place in the lecture hall
  - Practical training takes place in the computer laboratory.

- **.Assessment Methods**

-Type of assessment

- **Formative Assessment:** Quizzes, writing reports on special subject**.**
- **Summative Assessments:** Midterm exam, end term exam.
- **Continuous Feedback:** Provided thought out the course

-Detailed Breakdown

The academic year consists of:

1- Final exam score (60).
2- The pursuit score of (40) includes:

- A--- The first semester (10 marks) includes

1- Quizzes and TBL (IRAT, TRAT) (5 marks)
2- Weekly assignments, daily contributions, and laboratory attendance (5 marks)

- B---mid exam (20 degrees)
- C--- The second semester (10 marks) includes

1- Quizzes and TBL (IRAT, TRAT) (5 marks)
2- Weekly assignments, daily contributions, and laboratory attendance (5 marks)

-Pass/Fail Criteria

- **Pass mark:50%**

Blueprint of final exam.

Unit LOs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for 80 questions	No. of test items on each SLO	Remembering(direct question)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	Total no. of items
introduction	L	3	4	12	0.042403	3.392226	3	1	2	0	3		3
Basic concepts in information technoology	L	3	4	12	0.042403	3.392226	3	1	2	0	3		3
Basic concepts in information technoology	L	4	4	16	0.056537	4.522968	5	3	2	0	5		5
Operating system	L	3	4	12	0.042403	3.392226	3	2	1	0	3		3
Windows 10	L	3	3	9	0.031802	2.54417	3	3	0	0	3		3
Windows 10	L	3	4	12	0.042403	3.392226	3	3	0	0	3		3
Windows 10	L	4	4	16	0.056537	4.522968	5	5	0	0	5		5
Microsoft office word 2013	L	3	3	9	0.031802	2.54417	3	2	1	0	3		3
Microsoft office word 2013	L	3	4	12	0.042403	3.392226	3	2	1	0	3		3
Microsoft office word 2013	L	3	4	12	0.042403	3.392226	3	3	0	0	3		3
Microsoft office power point 2013	L	3	4	12	0.042403	3.392226	3	3	0	0	3		3
Microsoft office power point 2013	L	3	6	18	0.063604	5.088339	5	4	1	0	5		5
Microsoft office power point 2013	L	3	5	15	0.053004	4.240283	4	4	0	0	4		4
Microsoft office power point 2013	L	3	3	9	0.031802	2.54417	3	2	1	0	3		3
Microsoft office Excel 2013	L	4	4	16	0.056537	4.522968	5	3	2	0	5		5
Microsoft office Excel 2013	L	4	4	16	0.056537	4.522968	5	4	1	0	5		5
Microsoft office Excel 2013	L	4	4	16	0.056537	4.522968	5	3	2	0	5		5
Microsoft office Excel 2013	L	3	3	9	0.031802	2.54417	2	1	1	0	2		2
Internet	L	5	5	25	0.088339	7.067138	7	7	0	0	7		7
Internet	L	5	5	25	0.088339	7.067138	7	7	0	0	7		7
Total	L	69	81	283	1	80	80				80		80

6. **Instructional objectives of lectures:** For example:

NO.	Lecture title	No. of Lecture	Teaching Faculty	Topics
1	introduction	1	Lect. Dr.Lubna Thanoon	To learn Types of computers
2	introduction	1	Lect. Dr.Lubna Thanoon	To show Basic concepts in information technology
3	introduction	1	Lect. Dr.Lubna Thanoon	Define Hardware Input /Output tools
4	introduction	1	Lect. Dr.Lubna Thanoon	Define Memory and Storage and Performance Types of memory Type of Storage devices Computer performance
5	introduction	1	Lect. Dr.Lubna Thanoon	Define Software Type of Software
6	Windows 10	1	Asst.Lect. Zina Abdul Salam	Describe Desktop The mouse Basic parts functions of the mouse(Pointing, clicking, and dragging) pointer Minimize, Maximize and Close Date & Time
7	Windows 10	1	Asst.Lect.	Learning how to customize

			Zina Abdul Salam	Task Bar The Start menu Add a Shortcut icon to the Start menu Removing a program icon from the Start menu Documents MY COMPUTER
8	Windows 10	1	Asst.Lect. Zina Abdul Salam	Learn The Icons and Shortcuts Create a Shortcut to the desktop Organize the desktop icons Hiding desktop icons The Recycle Bin Selecting Files Creating Folders Deleting Folders Copying Files or Folders Moving Files or Folders Changing the name of a File or Folder Arranging Folders
9	Windows 10	1	Asst.Lect. Zina Abdul Salam	Learn how to Configuring the Screen The background or wallpaper The screensaver
10	Windows 10	1	Asst.Lect. Zina Abdul Salam	learning Configuring the Mouse The Buttons The pointer
11	Microsoft office word	1	Asst.Lect. Zina Abdul Salam	To learn Starting Microsoft Word Microsoft Word Element Microsoft Office Button Quick Access Toolbar Title Bar Ribbon Ruler Text Area Vertical and Horizontal and Vertical Scroll Bars Status Bar Working with Tex Delete Text: Select Text: Copy and Paste Text: Open a File Exit Word
12	Microsoft	1	Asst.Lect.	To learn

	office word		Zina Abdul Salam	Font change Font Size change Font face: change Font Color change the font style Bold, Italic, and Underline Commands Subscript Superscript Change the Text Case Preview a page before printing Print: Print via Quick Print: Text Alignment: Switch language Add Bullets and Numbers Undo and Redo
13	Microsoft office word	1	Asst.Lect. Zina Abdul Salam	To learn Spelling and grammar Find and Replace Page Layout Change Page Orientation Change the Paper Size Format Page Margin
14	Microsoft office word	1	Asst.Lect. Zina Abdul Salam	To learn Creating a table Insert a Blank Table Adding Text to a cell Add a Row Above an Existing Row Add a Column Delete a Row or Column Selecting a row Selecting a column Apply a Table Style Add a border Add shading Change text direction Merging and Splitting Cells Resize a table Move a table Resizing Column width: Resizing row Height: Auto Fit make multiple rows or columns the same size
15	Microsoft office word	1	Asst.Lect. Zina Abdul Salam	Be able to Insert Symbol

	2013			Insert ClipArt Insert header &footer Insert Textbox Insert Picture Insert Shapes
16	Microsoft office power point 2013	1	Lect. Dr.Lubna Thanoon	To make new presentain Definition the power point start the Microsoft power point program Power point presentation Power point window Create a New slide using blank presentation Adding Theme to Slide Resizing the text boxes Changing the text font To change the font style: Underlining text Saving presentation Closing the current presentation
17	Microsoft office power point 2013	1	Lect. Dr.Lubna Thanoon	Be able to Opening a presentation Adding New Slide Moving through slides Changing Theme of a slide Changing the layout of a slide
18	Microsoft office power point 2013	1	Lect. Dr.Lubna Thanoon	To make Deleting a slides Duplicate a slide Change a slide background Create a New slide using template
19	Microsoft office power point 2013	1	Lect. Dr.Lubna Thanoon	Can do Viewing a Presentation Re-arranging Animation Effects
20	Microsoft office power point 2013	1	Lect. Dr.Lubna Thanoon	describe Transitions Rehearse Timing
21	Microsoft office Excel 2013 /	1	Asst.Lect. Zina Abdul Salam	To know Introduction Starting excel Over view of the user interface
22	Microsoft office Excel 2013 /	1	Asst.Lect. Zina Abdul Salam	Microsoft office Excel 2013/ Workbook Formula bar Selecting cell, rows and column

23	Microsoft office Excel 2013 /	1	Asst.Lect. Zina Abdul Salam	learn/ Working with worksheets Working with views Setting print area
24	Microsoft office Excel 2013 /	1	Asst.Lect. Zina Abdul Salam	Can able to Entering data Filtering cells Working with charts
25	Microsoft office Excel 2013 /	1	Asst.Lect. Zina Abdul Salam	Microsoft office Excel 2013/ Using formula and functions Insert function
26	Internet/	1	Lect. Dr.Lubna Thanoon	define General Concept Internet: Hypertext Word Wide Web(www) Web Site Home Page Start Page Hyper Text Transfer Protocol(HTTP Hyper Text Markup Language(HTML) File Transfer Protocol(FTP)
27	Internet/	1	Lect. Dr.Lubna Thanoon	To discus Connecting to The Internet Starting Internet Explorer The components of the Internet Explorer Hyperlinks Browser Icons Web Addresses
28	Internet/	1	Lect. Dr.Lubna Thanoon	Changing the Start page Setting a New Start Page of your choice Turning off Graphics Closing and disconnecting
29	Internet/	1	Lect. Dr.Lubna Thanoon	Saving Web Addresses To Add A page to your Favorites menu Using Favorites Organizing Favorites Copying and Printing Text and Graphics Saving Web Pages Printing a page Search Engines
30	Internet/	1	Lect. Dr.Lubna Thanoon	Mail Programs Email Characteristics How Dose E-mail Work E-Mail Address

7. **Instructional objectives of Practical lectures:** For example:

NO.	Lecture title	No. of sessions	Teaching Faculty	Instructional objective
1	Windows 10	5	Asst.Lect. Zina Abdul Salam	Interface the windows, start menu, personalize the desktop and customize mouse button.
2	Microsoft office word 2013	5	Asst.Lect. Zina Abdul Salam	Create professional-looking documents, insert picture, insert table, and insert Equation, Symbol.
3	Microsoft office power point 2013	5	Asst.Lect. Zina Abdul Salam	Create and deliver effective presentations, work with slides and add animation, transition to the slid.
4	Microsoft office Excel 2013	5	Asst.Lect. Zina Abdul Salam	Manage, analyze and present data, organize and manipulate large amount of data, perform complex calculations and create professional-looking charts.

8. Table of the course

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السبت	فيزياء A		احياء A		انكليزي A	الديمقراطية وحقوق الانسان A	احياء مناقشة A	انكليزي A
	احياء B		فيزياء B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	تشريح A		كيمياء A		اساسيات الطب A	حاسبات A	مناقشة TBL A	الجزء النظري من الجانب العملي كيمياء A
	كيمياء B		تشريح B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	قاعة النظري مشغولة من قبل طلبة المرحلة الرابعة		تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

9. Learning Resources:

الحاسوب والبرمجيات الجاهزة

Computer skills- مهارات الحاسوب -

Dr. Muhammad Bilal Al-Zoubi

10. Additional Information

Contact: Zina.subhi@uoninevah.edu.iq

Lubna.thanoon@uoninevah.edu.iq

Location:فرع الطب الباطني/وحدة الحاسوب

Foundation for first year

1.General Information:

- **Subject**: Foundation
- **Code**: (1 03)
- **Credit hours**: 2 units(Theoretical 24 hours).
- **Course Language**: English and Arabic

2.Syllabus:

Introduction to Medical Terminology

- Definitions: philology, etymology, medical terminology.
- Importance of studying medical terminology.
- Origins and construction of medical terms.
- Roots of medical terms.

Components of Medical Terms

- Prefixes in medical terminology.
- Suffixes in medical terminology.

Advanced Medical Term Construction

- Elision and assimilation.
- Linking words in medical terms.

Spelling and Pronunciation

- Accurate spelling of medical terms.
- Silent letters in medical terminology.
- Plural endings in medical terms.

Muscle Terminology

- Names and meanings of upper limb muscles.
- Names and meanings of lower limb muscles.

Medical Terms of Arabic Origin

- Medical terms with Arabic origins.
- Meanings of terms: doctor, physician, medicine, surgery, anatomy, muscle, aorta, chemistry, medical practitioners, medical degrees.

Body Parts Terminology

- External body parts.
- Internal body organs.

Historical Medical Practices

- Medicine in prehistoric times.
- Medicine in ancient Eastern civilizations (Egypt, Mesopotamia, Persia, India).
- Greek and Roman medical practices (Asclepius, Hippocrates, Galen, Dioscorides).

Medieval and Renaissance Medicine

- Medicine in the Dark Ages and the rise of monastic healing.
- Medical advancements in the European Renaissance (Paracelsus, Vesalius).

Medical Advancements in the 17th and 18th Centuries

- 17th-century medical figures: William Harvey, Leeuwenhoek, Malpighi.
- 18th-century medical milestones: Obenrecker, Morgagni, Jenner.

19th-Century Medical Innovations

- Major figures: Laennec, Johannes Müller, Claude Bernard, Pasteur, Koch, Morton, Lister, Virchow, Röntgen.

Early 20th-Century Medical Innovations

- Electron microscopy, discovery of viruses.
- Antibiotics, corticosteroids, organ transplantation.

Medicine in Islamic Civilization

- Pre-Islamic medicine.
- Medicine during the Prophet's era.
- Umayyad era: Khalid bin Yazid.
- Abbasid era: translation efforts, contributions of Hunayn ibn Ishaq, Al-Razi, Ibn Sina, Al-Zahrawi, Ibn Al-Nafis, among others.
- Islamic medicine in Andalusia: Al-Zahrawi, Ibn Al-Baytar.

Health Concepts

- WHO definition of health.
- New philosophy of health.
- Dimensions of health.
- Positive health.

- Health as a relative concept.
- Definition of ecology.
- Measuring population health, health development.
- Indicators of health: characteristics, classification.
- Health index.

Medical Care and Health Systems

- Definition and characteristics of medical care.
- Levels of health care.
- Elements and principles of primary health care.
- Levels of prevention.

Environmental Health

- Definition and components of the environment.
- Environmental hazards and sanitation.
- Water-related diseases, classification.
- Air pollution sources.
- Occupational health: hazards and risks for doctors.

3.Learning Objective:

Knowledge

1. **Medical Terminology and Concepts**
    - Define key terms: philology, etymology, medical terminology, origins and construction of medical terms, prefixes, suffixes, and spelling.
    - Recognize body parts and muscle names.
    - Understand medical terms of Arabic origin.
2. **Historical Medical Practices**
    - Describe medicine in ancient civilizations (prehistoric, Eastern, Greek, Roman, medieval, Renaissance, 17th-20th centuries).
    - Detail the contributions of Islamic civilization to medicine.
3. **Health and Environment**
    - Define health and its dimensions, ecology, indicators of health, and medical care.
    - Explain environmental components, hazards, and sanitation.

Skills

1. **Medical Terminology Skills**
    - Correctly use and spell medical terms, prefixes, suffixes, and plural endings.
    - Pronounce medical terms accurately.

2. **Analytical Skills**
    - Analyze historical medical advancements and figures.
    - Evaluate environmental impacts on health and implement sanitation measures.

Attitudes

1. **Appreciation and Respect**
    - Appreciate the evolution of medical practices and cultural contributions.
    - Respect the importance of accurate medical terminology.
2. **Awareness and Responsibility**
    - Maintain high standards in medical terminology usage.
    - Be aware of environmental health impacts and preventive measures.
3. **Commitment to Health Philosophy**
    - Embrace a comprehensive view of health and promote positive health.
    - Implement primary health care principles and environmental sanitation.

4. Outcomes for Educational Program

1. **Knowledge:**
    - **Fundamentals of Medical Terminology:** Students will understand the definitions of philology, etymology, and medical terminology, as well as the importance and origins of medical terms.
    - **Components and Construction:** They will be able to identify and explain the roots, prefixes, suffixes, and linking words used in medical terminology.
    - **Anatomical Terminology:** Students will know the names and meanings of upper limb muscles, lower limb muscles, external body parts, and internal body organs.
    - **Cultural and Historical Context:** They will recognize medical terms of Arabic origin and understand the historical development of medical practices from ancient civilizations to modern times.
2. **Skill:**
    - **Language Proficiency:** Students will demonstrate proficiency in accurately spelling medical terms, understanding silent letters, and applying plural endings.
    - **Communication Skills:** They will effectively use medical terminology in communication, both clinically and academically.
    - **Critical Thinking:** Students will analyze complex medical and historical information critically, evaluating the significance of medical innovations and cultural influences.
3. **Attitude:**
    - **Respect for Cultural Diversity:** Students will develop an appreciation for the cultural influences on medical terminology and practices.
    - **Professionalism:** They will exhibit a professional attitude towards learning and applying medical terminology in diverse contexts.
    - **Lifelong Learning:** Graduates will be motivated to engage in continuous learning and research to expand their knowledge beyond the classroom.

5. Course Overview

- **The course is theoretical, no clinical part is present**

- **Duration**:
    - Weekly Hours: one hour per week (first semester)
    - Weekly Hours: one hour per week (second semester)

      Total: 24 hours per academic year

- **Location**:

  - Lecture Hall in the college campus

- **Format**:
    - Tutor-Centered
    - Student-Centered: Motivating students to discuss and present parts of the lecture.
    - Interactive Teaching
    - Evidence-based learning

Methods of teaching :

The lecture is conducted by the lecturer in the lecture hall with the commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.
2. Adopting the Google classroom approach, in downloading lectures few days prior to date of lecture, also downloading pictures and videos if needed, in order to assist the student in understanding
3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.
4. Supporting the lecture with educational techniques through the computer and data display device.
5. Make a short **formative exam** at the end of each lecture on the topic of the lecture. The examination has several forms including a few BOF displayed at the end of power point presentation, the student orally or through power point presentation

- **Assessment Methods**

Types of assessment:

- **Formative Assessments**: by quizzes. at the end of power point presentation
  By using online exams through BOF sent by Google format
- **Summative Assessments**: through written exams, midterm exams, end term exams
- **Continuous Feedback**: Provided throughout the course

Components of Assessment:

- Written Exams (100% of total grade)

Detailed Breakdown

- **Written Exams (100%)**:
  - Midterm Exam: 30% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs)
  - End term Exam: 70% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs

Pass Mark: 50%

- **Continuous Assessment,** examples: formative MCQ After each lecture, bed side formative assessment

Blue print of final exam

subject	No. of Questions	subject	No. of Questions
Medical terminology	5	**WHO definition of health**	5
Prefixes	5	**Ecology**	4
Elision and Assimilations	9	**Health index**	5
suffixes	10	**principle of primary health care**	5
Herbal medicine	3	**Definition of environment**	5
Evidence based medicine	3	**Environment of work**	5
History of medicine	6		

6.Instructional objectives of the lectures:

Chapter title	Lecture title	lecture	No. of lecture	Instructional objectives
Medical terminology	Medical terminology: -Introduction to medical terminology - prefixes - suffixes - elision and assimilation, - upper limb muscles - lower limb muscles - doctor, physician, medicine, surgery, anatomy, muscle, aorta, chemistry, medical practitioners, medical degrees - external body parts - internal body organs - Herbal medicine	Dr. Dhelal Ahmed Dr. Ahmed Hekmat	10	At the end of the course the student should be able to know the meaning of certain medical term and accurate spelling silent spelling pleural endings
Herbal medicin	Introduction to Herbal medicine	Dr. Dhelal Ahmed Dr. Ahmed Hekmat	1	At the end of the course the student should be able to know the meaning of herbal medicine
Evidence based medicine	Introduction to Evidence based medicine	Dr. Huda Abbas	1	At the end of this lecture the student should be able to know the EBM
History of medicine	-Medicine in prehistoric times -Medicine in ancient oriental civilizations - Medicine in the Dark Middle Ages - Medicine in the European Renaissance - Medicine of Islamic Civilization - Islamic civilization in Andalusia	Dr. Dhelal Ahmed Dr. Ahmed Hekmat	6	At the end of the course the student should be able to know the history of medicine

WHO definition of health	-New philosophy of health -Dimension of health -Positive health	Dr Huda Abbas	1	At the end of this lecture the student should be able to understand definition of health
Ecology	-Definition of Ecology -Measuring population health(Health development) -Indicators of Health	Dr. Ahmed Hekmat	1	At the end of this lecture the student should be able to measure health of population
Health index	-Definition of Medical care -Characteristics of Health care -Levels of health care -Elements of primary health care	Dr. Dhelal Ahmed	1	-At the end of this lecture the student should be able to identify Characteristics of Health care -Levels of health care -Elements of primary health care
Principles of primary health care	Levels of prevention	Dr. Amina Ammer	1	At the end of this lecture the student should be able to identify Levels of prevention
Definition of environment	-Components of environment -Hazards (adverse environmental factors) -Sanitation -Water and related diseases (classification) -Air pollution	Dr. Dhelal Ahmed	1	At the end of this lecture the student should be able to identify Components of environment, Sanitation, Water and related diseases, air pollution

Environment of work	Types of interaction, Occupational Hazards, Occupational risk associated with the job of Doctors	Dr. Ahmed Hekmat	1	At the end of this lecture the student should be able to identify types of interaction, Occupational Hazards, Occupational risk associated with the job of Doctors

7. Instructional objectives of the clinical sessions:

Not applicable

8. Tables of the Course:

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السبت	فيزياء A		احياء A		انكليزي A	الديمقراطية وحقوق الانسان A	احياء مناقشة A	انكليزي A
	احياء B		فيزياء B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	تشريح A		كيمياء A		اساسيات الطب A	حاسبات A	مناقشة TBL A	الجزء النظري من الجانب العملي كيمياء A
	كيمياء B		تشريح B		احياء مناقشة B	مناقشة TBL B	الجانب العملي كيمياء B	
الاثنين	قاعة النظري مشغولة من قبل طلبة المرحلة الرابعة		تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

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السبت	تشريح A		كيمياء A		انكليزي A	الديمقراطية وحقوق الانسان A	اساسيات الطب A	انكليزي A
	كيمياء B		تشريح B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	فيزياء A		احياء A		حاسبات A	احياء مناقشة A	مناقشة TBL A	
	احياء B		فيزياء B		احياء مناقشة B	مناقشة TBL B	الجانب العملي كيمياء B	
الاثنين	تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A	الجزء النظري من الجانب العملي كيمياء A	
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

9. Learning Resources

Introduction to Medical Terminology by Linda Stanhope, Kimberly Turnbull.

10. Additional Information

Contact: Dr Huda Abas.

huda .fadhil@uoninevah.edu.iq

Location: فرع طب الباطني

Anatomy for first year

1. General Information:

- **Subject**: Anatomy
- **Code**: (1 04)
- **Credit hours**: 8 units (60 hours theory and 120 hours practical)
- **Course Language**: English.

2. Syllabus:

- **Introduction to human anatomy**

  1- Definition of anatomy
  2- Terms of planes, movements and positions
  3- Basic anatomical structures (skin, fascia, vessels, nerves, muscles, bones, joints and ligaments

- **Anatomy of upper limbs**

  1- Bones and joints of upper limbs
  2- Pectoral region and breast
  3- Axilla and contents
  4- Arm
  5- Forearm
  6- hands

- **Anatomy of thorax**

  1- Skeleton of thorax
  2- Lungs and pleurae
  3- Mediastina (superior, anterior, middle and posterior) and their contents, with detailed study of the heart.

- **Anatomy of lower limbs**

  1- bones and joints of lower limbs
  2- gluteal region
  3- thigh
  4- leg
  5- foot

3. Learning objective

Knowledge

Students will be able to describe normal anatomical structures of upper limbs, lower ,limbs and thorax and to know the function of these regions, in addition student should be able to know few basic points about applied anatomy related to these regions.

Skill

Students will be able to use plastinated human cadavers, plastic models and anatomage table to know the normal anatomical structures of these regions.

4. Outcomes for Educational program

Knowledge

Active Learning Techniques: Utilize active learning techniques such as summarizing key points, creating flashcards, or teaching the material to someone else. This helps reinforce understanding and retention

Skill

Visual Aids and Diagrams: Use diagrams, charts, and models. This can aid in understanding and memorization

Practice with Quizzes and Questions: Test your understanding regularly with quizzes and practice questions. This helps identify areas of weakness that need further review.

5. Course Overview

- **The course is composed of two parts as follow:**

1.*Theoretical Part . 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: 2
  - Total: 60 hours per academic year

  For the practical part:

  - Weekly Hours: 4
  - Total: 120 hours per academic year

- **Teaching location**:

  -For the theoretical part: Lecture Hall

-For the practical part: anatomy laboratory

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSPEs
- **Continuous Feedback**: Provided throughout the course

-*Components of Assessment:*

- Written Exams
- Objective Structured practical Examination (OSPE)

-*Detailed Breakdown*

Midyear examination

10 marks for practical
20 marks for theory
10 marks for quizzes and OSPEs

Final year examination

15 marks for practical
45 marks for theory

Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.

6. Instructional objective of the lectures :

Introduction to human anatomy

Semester 1				
Lecture no.	**Topics Covered**	**Instructional objective**	**No. of lectures**	**Faculty member**
1	Definition of Human Anatomy and Anatomical Position	Describe human anatomy; Standard anatomical position	1	Dr. Waleed H. Kasim
2	Planes of the Body and Terms of Position	Body planes (sagittal, coronal, transverse); Directional terms (anterior, posterior, etc.)	1	Dr. Waleed H. Kasim
3	Terms of Movement	Movements (flexion, extension, abduction, adduction, rotation, etc.)	1	Dr. Waleed H. Kasim
4	The Skin, Fasciae, and Vessels	Structure and function of the skin, superficial and deep fasciae, and blood vessels	1	Dr. Waleed H. Kasim
5	Types and Structure of Nerves	Classification of nerves; Structure of a typical nerve	1	Dr. Waleed H. Kasim
16	Typical Spinal Nerve	Anatomy of a typical spinal nerve; Functional components	1	Dr. Waleed H. Kasim
7	Types of Muscles and Joints	Classification of muscles (skeletal, cardiac, smooth); Types of joints (fibrous, cartilaginous, synovial)	1	Dr. Waleed H. Kasim
8	Synovial Joints	Structure and function of synovial joints; Types and examples	1	Dr. Waleed H. Kasim
9	Types of Bones, Ligaments, and Cartilages	Classification and structure of bones; Types and functions of ligaments and cartilages	1	Dr. Waleed H. Kasim
10	Introduction to Radiological,	Basics of radiology; Application of anatomy in clinical practice and medical	1	Dr. Waleed H. Kasim

Semester 1				
Lecture no.	**Topics Covered**	**Instructional objective**	**No. of lectures**	**Faculty member**
	Clinical, and Applied Anatomy	procedures		

Upper limbs

Semester 1				
Lecture no.	**Topics Covered**	**Instructional objective**	**No. of lectures**	**Faculty member**
1	Skeleton of Upper Limbs	study of upper limb bones, focusing on anatomical features, landmarks	1	Dr Mutaz AbdulJawad
2	Pectoral Region and Breast	examination of pectoral region and breast anatomy, including muscles, vasculature, and clinical correlations.	1	Dr Mutaz AbdulJawad
3	Axilla Part 1	exploration of axilla boundaries, contents, and neurovascular structures with clinical implications.	1	Dr Mutaz AbdulJawad
4	Axilla Part 2	Continued examination of axilla focusing on posterior compartment, lymphatic drainage, and surgical 1interventions.	1	Dr Mutaz AbdulJawad
5	Back and Scapular Region Part 1	Describe the back and scapular region muscles, bones, and neurovascular structures.	1	Dr Mutaz AbdulJawad
6	Back and Scapular Region Part 2	Further study of deep muscles, ligaments, and movements of the scapula	1	Dr Mutaz AbdulJawad
7	Arm Part 1	examination of arm's anterior compartment focusing on muscles,	1	Dr Mutaz

		nerves, and blood vessels.		AbdulJawad
8	Arm Part 2	discuss arm's posterior compartment including clinical scenarios	1	Dr Mutaz AbdulJawad
9	Anterior Compartment of Forearm	study of forearm's anterior compartment muscles, nerves, and vasculature	1	Dr Mutaz AbdulJawad
10	Cubital Fossa	examination of cubital fossa boundaries, contents	1	Dr Mutaz AbdulJawad
11	Posterior Compartment of Forearm	Discuss forearm's posterior compartment muscles, nerves, and vessels.	1	Dr Mutaz AbdulJawad
12	Hand Part 1	study of hand's anterior compartment including muscles, bones, and innervation.	1	Dr Mutaz AbdulJawad
13	Hand Part 2	examination of hand's posterior compartment focusing on bones, muscles, and nerves.	1	Dr Mutaz AbdulJawad
14	Joints Part 1	study of upper limb joints, emphasizing structure, function	1	Dr Mutaz AbdulJawad
15	Joints Part 2	Continued exploration of upper limb joints with clinical correlations to conditions like dislocations.	1	Dr Mutaz AbdulJawad
16	Lymphatic Drainage of	discuss upper limb lymphatic system and its clinical significance.	1	Dr Mutaz AbdulJawad

	Upper Limbs			
17	Radiological Anatomy of Upper Limbs Part 1	discuss radiological imaging modalities like X-ray, CT, and MRI applied to upper limb anatomy.	1	Dr Mutaz AbdulJawad
18	Radiological Anatomy of Upper Limbs Part 2	Continued study focusing on advanced imaging techniques and their clinical relevance.	1	Dr Mutaz AbdulJawad
19	Clinical and Applied Anatomy of Upper Limbs Part 1	Exploration of clinical scenarios and surgical interventions involving upper limbs.	1	Dr Mutaz AbdulJawad
20	Clinical and Applied Anatomy of Upper Limbs Part 2	Advanced discussion of clinical cases and surgical techniques relevant to upper limb anatomy.	1	Dr Mutaz AbdulJawad

Thorax

Semester 2				
Lecture no.	**Topics Covered**	**Instructional objective**	**No. of lectures**	**Faculty member**
1	Thoracic Cage	study of the thoracic cage, the sternum, ribs, and thoracic vertebrae.	1	Dr Mutaz AbdulJawad
2	Intercostal Spaces Part 1	discussion of the intercostal spaces' anatomy, focusing on structures passing through	1	Dr Mutaz AbdulJawad
3	Intercostal Spaces Part 2	Continued exploration of intercostal spaces, emphasizing neurovascular	1	Dr Mutaz AbdulJawad

		structures and their clinical significance.		
4	Pleura, Trachea and Bronchi	study of the pleura, trachea, and bronchi, including their anatomical relationships and functions.	1	Dr Mutaz AbdulJawad
5	Lungs	Examination of the lungs' anatomy, lobes, fissures, and pulmonary vasculature.	1	Dr Mutaz AbdulJawad
6	Division of Mediastinum	discussion of the mediastinum divisions, including superior and inferior compartments and their contents.	1	Dr Mutaz AbdulJawad
7	Pericardium	study of the pericardium anatomy, and layers	1	Dr Mutaz AbdulJawad
8	Heart Part 1	examination of the heart's anatomy, including chambers, valves, and coronary circulation.	1	Dr Mutaz AbdulJawad
9	Heart Part 2	Further exploration of the heart anatomy, focusing on the conduction system, blood supply.	1	Dr Mutaz AbdulJawad
10	Blood Supply and Venous Drainage of Heart	study of the coronary arteries, cardiac veins, and venous drainage of the heart.	1	Dr Mutaz AbdulJawad
11	Mediastinum Part 1	examination of the anterior, middle, and posterior compartments of the mediastinum.	1	Dr Mutaz AbdulJawad

12	Mediastinum Part 2	Continued study of the mediastinum, focusing on neurovasculature, lymphatic drainage.	1	Dr Mutaz AbdulJawad
13	Lymphatics of Thorax	discussion of the thoracic lymphatic system, including drainage pathways and clinical significance.	1	Dr Mutaz AbdulJawad
14	Radiological Anatomy of Chest	study of radiological imaging modalities used to assess chest anatomy and pathology.	1	Dr Mutaz AbdulJawad
15	Clinical and Applied Anatomy of Chest	study of clinical scenarios and surgical interventions involving the chest,	1	Dr Mutaz AbdulJawad

Lower limbs

Semester 2				
Lecture no.	**Topics Covered**	**Instructional objective**	**No. of lectures**	**Faculty member**
1	Skeleton of Lower Limbs	study of lower limb bones, focusing on anatomical features, landmarks,	1	Dr Mutaz AbdulJawad
2	Femoral Triangle	examination of the femoral triangle anatomy, including boundaries, contents, and clinical implications.	1	Dr Mutaz AbdulJawad
3	Anterior Compartment of Thigh	discussion of the anterior compartment of the thigh, focusing on muscles, nerves, and vasculature.	1	Dr Mutaz AbdulJawad
4	Medial and Posterior Compartments of Thigh	Study of the medial and posterior compartments of the thigh, including muscles, nerves, and vessels.	1	Dr Mutaz AbdulJawad

5	Gluteal Region	Comprehensive study of the gluteal region anatomy, including muscles, innervation, vasculature.	1	Dr Mutaz AbdulJawad
6	Popliteal Fossa	study of the popliteal fossa boundaries	1	Dr Mutaz AbdulJawad
7	Leg Part 1	study of the leg including muscles, and neurovascular structures anterior compartment.	1	Dr Mutaz AbdulJawad
8	Leg Part 2	Continued study of the leg anatomy, focusing on the posterior compartment and clinical correlations.	1	Dr Mutaz AbdulJawad
9	Foot Part 1	study of the foot anatomy, including bones, muscles, and neurovascular structures of the dorsum.	1	Dr Mutaz AbdulJawad
10	Foot Part 2	Comprehensive analysis of the foot anatomy, focusing on the plantar aspect and its clinical relevance.	1	Dr Mutaz AbdulJawad
11	Joints Part 1	study of lower limb joints, emphasizing structure, function, and common pathologies.	1	Dr Mutaz AbdulJawad
12	Joints Part 2	Continued exploration of lower limb joints with clinical	1	Dr Mutaz AbdulJawad
13	Lymphatic Drainage of Lower Limbs	discussion of the lower limb lymphatic system and its clinical significance.	1	Dr Mutaz AbdulJawad
14	Radiological Anatomy of Lower Limbs	discussion of radiological imaging modalities like X-ray, CT, and MRI applied to lower limb anatomy.	1	Dr Mutaz AbdulJawad

15	Clinical and Applied Anatomy of Lower Limbs	discussion of clinical scenarios and surgical interventions involving lower limbs.	1	Dr Mutaz AbdulJawad

7. Instructional objectives of the Practical Sessions:

No.	Session Title	No. of Sessions	Faculty Member	Instructional Objective
1	Definition of Human Anatomy and Anatomical Position	1	Dr. Waleed Hazim	- Understand the definition and scope of human anatomy, and learn the anatomical position
2	Planes of the Body and Terms of Position	1	Dr. Waleed Hazim	- Describe the different anatomical planes and terms of position used in anatomy
3	Terms of Movement	1	Dr. Waleed Hazim	- Learn the terminology related to movements of the body
4	The Skin, Fasciae, and Vessels	1	Dr. Waleed Hazim	- Understand the structure and functions of the skin, fasciae, and vessels
5	Types and Structure of Nerves	1	Dr. Waleed Hazim	- Describe the types and structure of nerves, including their components and functions
6	Typical Spinal Nerve	1	Dr. Waleed Hazim	- Learn the structure and function of a typical spinal nerve
7	Types of Muscles and Joints	1	Dr. Waleed Hazim	- Identify the different types of muscles and joints, and understand their structures and functions
8	Synovial Joints	1	Dr. Waleed Hazim	- Describe the structure, types, and movements of synovial joints
9	Types of Bones, Ligaments, and Cartilages	1	Dr. Waleed Hazim	- Understand the different types of bones, ligaments, and cartilages, and their functions
10	Introduction to Radiological, Clinical, and	1	Dr. Waleed	- Learn the basics of radiological, clinical, and applied anatomy

	Applied Anatomy		Hazim	
11	Skeleton of Upper Limbs	1	Dr. Waleed Hazim	- Describe the bones of the upper limb, including their anatomical features and articulations
12	Pectoral Region and Breast	1	Dr. Waleed Hazim	- Understand the anatomy of the pectoral region and the breast, including their structures and functions
13	Axilla Part 1	1	Dr. Waleed Hazim	- Learn the boundaries, contents, and clinical significance of the axilla
14	Axilla Part 2	1	Dr. Waleed Hazim	- Continue to explore the anatomical details and clinical aspects of the axilla
15	Back and Scapular Region Part 1	1	Dr. Waleed Hazim	- Describe the muscles, bones, and nerves of the back and scapular region
16	Back and Scapular Region Part 2	1	Dr. Waleed Hazim	- Continue to understand the anatomy and functional aspects of the back and scapular region
17	Arm Part 1	1	Dr. Waleed Hazim	- Learn the anatomy of the arm, including muscles, nerves, and blood supply
18	Arm Part 2	1	Dr. Waleed Hazim	- Continue to explore the anatomical details of the arm
19	Anterior Compartment of Forearm	1	Dr. Waleed Hazim	- Describe the muscles, nerves, and vessels in the anterior compartment of the forearm
20	Cubital Fossa	1	Dr. Waleed Hazim	- Understand the boundaries and contents of the cubital fossa, and its clinical significance
21	Posterior Compartment of Forearm	1	Dr. Waleed Hazim	- Learn the anatomy of the posterior compartment of the forearm, including muscles, nerves, and vessels
22	Hand Part 1	1	Dr. Waleed Hazim	- Describe the bones, muscles, and nerves of the hand
23	Hand Part 2	1	Dr. Waleed	- Continue to explore the detailed anatomy of the hand

			Hazim	
24	Joints Part 1	1	Dr. Waleed Hazim	- Understand the types and structures of joints in the upper limb
25	Joints Part 2	1	Dr. Waleed Hazim	- Continue to learn about the joints of the upper limb and their movements
26	Lymphatic Drainage of Upper Limbs	1	Dr. Waleed Hazim	- Describe the lymphatic drainage pathways and nodes in the upper limbs
27	Radiological Anatomy of Upper Limbs Part 1	1	Dr. Waleed Hazim	- Learn to interpret radiological images of the upper limbs
28	Radiological Anatomy of Upper Limbs Part 2	1	Dr. Waleed Hazim	- Continue to explore radiological anatomy of the upper limbs
29	Clinical and Applied Anatomy of Upper Limbs Part 1	1	Dr. Waleed Hazim	- Understand the clinical and applied aspects of upper limb anatomy
30	Clinical and Applied Anatomy of Upper Limbs Part 2	1	Dr. Waleed Hazim	- Continue to explore the clinical and applied anatomy of the upper limbs
31	Thoracic Cage	1	Dr. Waleed Hazim	- Describe the bones and joints of the thoracic cage, and their functions
32	Intercostal Spaces Part 1	1	Dr. Waleed Hazim	- Learn the contents and clinical significance of the intercostal spaces
33	Intercostal Spaces Part 2	1	Dr. Waleed Hazim	- Continue to explore the detailed anatomy of the intercostal spaces
34	Pleura, Trachea, and Bronchi	1	Dr. Waleed Hazim	- Understand the anatomy of the pleura, trachea, and bronchi, including their relations and functions
35	Lungs	1	Dr. Waleed Hazim	- Describe the structure, blood supply, and innervation of the lungs
36	Division of Mediastinum	1	Dr. Waleed	- Learn the divisions and contents of the mediastinum

			Hazim	
37	Pericardium	1	Dr. Waleed Hazim	- Understand the anatomy and functions of the pericardium
38	Heart Part 1	1	Dr. Waleed Hazim	- Describe the external anatomy of the heart, including chambers, vessels, and surface features
39	Heart Part 2	1	Dr. Waleed Hazim	- Continue to explore the internal anatomy and functional aspects of the heart
40	Blood Supply and Venous Drainage of Heart	1	Dr. Waleed Hazim	- Learn about the coronary circulation, including arterial supply and venous drainage of the heart
41	Mediastinum Part 1	1	Dr. Waleed Hazim	- Understand the anatomy and contents of the superior and anterior mediastinum
42	Mediastinum Part 2	1	Dr. Waleed Hazim	- Continue to explore the middle and posterior mediastinum, including major vessels and nerves
43	Lymphatics of Thorax	1	Dr. Waleed Hazim	- Describe the lymphatic drainage of the thoracic cavity, including important nodes and pathways
44	Radiological Anatomy of Chest	1	Dr. Waleed Hazim	- Learn to interpret radiological images of the chest, including normal anatomy and common pathologies
45	Clinical and Applied Anatomy of Chest	1	Dr. Waleed Hazim	- Understand the clinical and applied aspects of chest anatomy
46	Skeleton of Lower Limbs	1	Dr. Waleed Hazim	- Describe the bones of the lower limb, including their anatomical features and articulations
47	Femoral Triangle	1	Dr. Waleed Hazim	- Understand the boundaries and contents of the femoral triangle, and its clinical significance
48	Anterior Compartment of Thigh	1	Dr. Waleed Hazim	- Learn the muscles, nerves, and vessels in the anterior compartment of the thigh
49	Medial and Posterior Compartments of Thigh	1	Dr. Waleed	- Describe the anatomy of the medial and posterior compartments of the

			Hazim	thigh, including muscles, nerves, and vessels
50	Gluteal Region	1	Dr. Waleed Hazim	- Understand the anatomy of the gluteal region, including muscles, nerves, and vessels
51	Popliteal Fossa	1	Dr. Waleed Hazim	- Describe the boundaries and contents of the popliteal fossa, and its clinical significance
52	Leg Part 1	1	Dr. Waleed Hazim	- Learn the anatomy of the leg, including the anterior and lateral compartments
53	Leg Part 2	1	Dr. Waleed Hazim	- Continue to explore the anatomy of the leg, including the posterior compartment
54	Foot Part 1	1	Dr. Waleed Hazim	- Describe the bones, muscles, and nerves of the foot
55	Foot Part 2	1	Dr. Waleed Hazim	- Continue to explore the detailed anatomy of the foot
56	Joints Part 1	1	Dr. Waleed Hazim	- Understand the types and structures of joints in the lower limb
57	Joints Part 2	1	Dr. Waleed Hazim	- Continue to learn about the joints of the lower limb and their movements
58	Lymphatic Drainage of Lower Limbs	1	Dr. Waleed Hazim	- Describe the lymphatic drainage pathways and nodes in the lower limbs
59	Radiological Anatomy of Lower Limbs	1	Dr. Waleed Hazim	- Learn to interpret radiological images of the lower limbs
60	Clinical and Applied Anatomy of Lower Limbs	1	Dr. Waleed Hazim	-Learn few points about clinical and applied anatomy of lower limbs

8.Tables of the Course

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

المباحة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠	٣,٣٠ – ٤,٣٠
السبت	تشريح A		كيمياء A		انكليزي A	الديمقراطية وحقوق الانسان A	اساسيات الطب A
	كيمياء B		تشريح B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B
الاحد	فيزياء A		احياء A		حاسبات A	احياء مناقشة A	مناقشة TBL A
	احياء B		فيزياء B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B
الاثنين	تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A	الجزء النظري من الجانب العملي كيمياء A
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

الدكتور
أسامة مدحت السيد حاوي
مسجل كلية الطب / جامعة نينوى

٢٠٢٤/٥/٢١

Blue print

blue print for final Anatomy exam 2024

class .....1..... College/ I

Unit/ Course/ Subject: .....

	Lecturs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for75 questions exams(W*75)	No. of test items on each SLO
1	arm	L	2	1	2	0.047619	3.571428571	3
2	axilla	L	1	1	1	0.0238095	1.785714286	2
3	pectoral regoin	L	1	1	1	0.0238095	1.785714286	2
4	forearm	L	1	2	2	0.047619	3.571428571	8
5	hand	L	1	2	2	0.047619	3.571428571	
6	gluteal	L	2	2	4	0.0952381	7.142857143	7
7	thigh	L	1	5	5	0.1190476	8.928571429	9
8	leg	L	1	3	3	0.0714286	5.357142857	6
9	foot	L	1	2	2	0.047619	3.571428571	4
10	chest wall	L	2	3	6	0.1428571	10.71428571	8
11	lung	L	2	2	4	0.0952381	7.142857143	8
12	heart and medistina	L	2	5	10	0.2380952	17.85714286	17
	total		17	29	42	1	75	74

9.Learning Resources

Course Materials:

- Snell Clinical Anatomy by Regions
- Moore's Clinical Anatomy
- Netter Atlas of Human Anatomy Textbook, lecture slides, online resources, and practical lab sessions

10.Additional Information

- **Lecturer/ theory:** Dr Mutaz AbdulJawad
- **Lecturer/ practical:** Dr. Waleed Hazim

Biology for first year

1.General Information:

- **Subject:** Medical biology
- **Code**: (1 05)
- **Number of units**6 units(120 hours(60 theoretical+ 30 practical)).
- **Course Language**: English.

2.Syllabus:

Part one : Molecular biology:

- Introduction
- Taxonomy
- Water and acids and Bases
- Biological macromolecules: Carbohydrates and lipids
- Proteins and nucleic acids
- Tools of cell biology
- Organisms and cells
- Cytoplasm, Nucleus, Ribosomes and Endoplasmic Reticulum
- Golgi apparatus, Lysosomes and Mitochondria
- The movement related parts of the cell
- plasma membrane
- Cellular respiration and metabolism
- Cellular differentiation, specialization and aging.

Part two: Molecular genetics:

- Molecular Genetic Introduction.
- The molecular structure of the gene.
- DNA Replication.
- Gene Expression.
- Regulation of Gene Expression.
- Mutation Types & Molecular basis.
- Chromosomal Disorders.
- Genetic engineering
- Molecular basis of recombinant DNA technology
- Gene Cloning
- Gene linkage and crossing over

Part three: Histology:

- Epithelial tissue

- Connective tissue
- Blood
- Muscle tissue
- Nervous tissue

3- Learning objective

Knowledge

Students will be able to describe different types of cells that constitute human body , to know the structures and functions of cell's organells.

Skill

Students will be able to use the microscope to exam and to differentiate between different types of cells, muscles and connective tissue and to know the intracellular structure of the cell.

4- Outcomes for Educational program

Knowledge

Active Learning Techniques: Utilize active learning techniques such as summarizing key points, creating flashcards, or teaching the material to someone else. This helps reinforce understanding and retention.

Skill

Visual Aids and Diagrams: Use diagrams, charts, and models to visualize complex structures and processes. This can aid in understanding and memorization.

Practice with Quizzes and Questions: Test your understanding regularly with quizzes and practice questions. This helps identify areas of weakness that need further review.

5.Course Overview

The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

Duration:

For the theoretical part:

Weekly Hours: 2

Total:60 hours per academic year

For the practical part:

Weekly Hours: 2

Total: 60 hours per academic year.

Teaching location:

-For the theoretical part: Lecture Hall

-For the practical part: Biology laboratory

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, TBL, practical exams
- **Summative Assessments**: Midterm exams, end term exams.
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

Midyear examination

10 marks for practical

20 marks for theory

10 marks for quizzes and seminars

Final year examination

20 marks for practical

40 marks for theory

Medical biology blue print first class

Final examination 2024

Total 80 MCQ

Subject	Remembering questions	Understanding questions	Problem solving
Molecular biology	**11**	**1**	**2**
Genetics	**16**	**19**	**2**
Histology	**5**	**14**	
Total=80	**32**	**44**	**4**

6. Instructional objective of the lectures

Semester 1			
Molecular biology			
Lecture no.	**Topics Covered**	**Instructional objective**	**Faculty member**
1	Introduction	Define biology and study the characteristics of life.	د. ندى فاضل
2	Classification of living	Explain the basic taxonomy of living things.	د. ندى فاضل
3	The three domains of	To describe bacteria and distinguish between bacteria and archaebacteria.	د. ندى فاضل
4	The chemistry of life.	To explain the chemistry of life and study the importance of water to life.	د. ندى فاضل
5	Atoms and isotopes.	- Define atom and study the structure of it, and explain the isotopes and their importance in treatment and diagnosis.	د. ندى فاضل
6	Water and acids and Bases	To define acids, bases and pH scale.	د. ندى فاضل
7	Organic and inorganic compounds.	To distinguish between organic and inorganic compounds..	د. ندى فاضل
8	Biological macromolecules.	Explain the main types of organic compounds.	د. ندى فاضل
9	Carbohydrates.	Explain types and structures of carbohydrates.	د. ندى فاضل
10	Lipids.	Explain types and structures of lipids.	د. ندى فاضل
11	Proteins.	Explain types, structure and functions of proteins.	د. ندى فاضل
12	Nucleic acids.	Explain types and structure of nucleic acids.	د. ندى فاضل
13	Tools of cell biology	- Describe the types of microscope. - Describe Subcellular fractionation and autoradiography.	د. ندى فاضل
14	Organisms and cells	-Describe Prokaryotic and eukaryotic cell and distinguish between them.	د. ندى فاضل

Semester 1			
Molecular biology			
Lecture no.	**Topics Covered**	**Instructional objective**	**Faculty member**
		- Study types of bacteria.	
15	Cytoplasm and cytosol	- Distinguish between cytoplasm and cytosol.	د. ندى فاضل
16	Nucleus	- Describe nucleus. - Explain nucleus related disease.	د. ندى فاضل
17	Endoplasmic Reticulum	Describe the types, structure and function of Golgi apparatus.	د. ندى فاضل
18	Golgi apparatus	- Describe the structure and function of Endoplasmic reticulum - Study some diseases related to it.	د. ندى فاضل
19	Lysosomes	- Describe the structure and function of lysosomes. - Study some diseases related to it.	د. ندى فاضل
20	Mitochondria	-Describe the structure and function of Mitochondria - Study some diseases related to it.	د. ندى فاضل
21	The movement related parts of the cell	- Describe the structure and function of cytoskeleton. - Study some diseases related to it.	د. ندى فاضل
22	Plasma membrane	- Describe the structure and function of plasma membrane. - Study some diseases related to it.	د. ندى فاضل
23	Cellular activities and metabolism.	- Outline the types of cellular activities, and explain the metabolism. - Study some diseases related to it.	د. ندى فاضل
24	Cellular differentiation and specialization	Describe types, structure and function of the cell .	د. ندى فاضل
25	Development.	Explain the development and outline of leukemia.	د. ندى فاضل
26	Apoptosis	Explain the definition and importance of it.	د. ندى فاضل
27	Aging and death.	Explain aging of the cell and human and distinguish between them.	د. ندى فاضل

Semester 2			
1- Genetics			
Lecture no.	**Topics Covered**	**Instructional objective**	**Faculty member**
28	Introduction to Molecular genetic	Describe the history of molecular genetics, DNA definition and structure.	د. غادة صديق
29	Molecular genetic terminology	Identify and explain the common terms used in genetics.	د. غادة صديق
30	Genes and the genetic code.	Identify gene definition, anatomy and gene structure.	د. غادة صديق
31	Solving the genetic code	Explain Nirenberg work on the genetic code.	د. غادة صديق
32	DNA Replication (1)	Identify DNA Synthesis: Eukaryote and enzymes involved in DNA replication.	د. غادة صديق
33	DNA Replication (2)	DNA synthesis: prokaryote and prokaryotic genome.	د. غادة صديق
34	Gene expression (1)	Explain gene expression stages and mechanism.	د. غادة صديق
35	Gene expression (2)	Explain the roles of all three forms of RNA in translation and transcription.	د. غادة صديق
36	Regulation of gene expression	Identify, describe the regulation of gene expression in Prokaryote and Eukaryote.	د. غادة صديق
37	Mutation Types and molecular basis (1)	Categorize, describe and explain the DNA mutations.	د. غادة صديق
38	Mutations: Types and molecular basis (2)	Categorize and explain DNA deletion, insertion and trinucleotide repeat mutations.	د. غادة صديق
39	Chromosomal disorders: Cytogenetics (1)	Identify, describe and explain terminology of cytogenetics and numerical abnormalities in chromosomes.	د. غادة صديق
40	Chromosomal disorders: Cytogenetics (2)	Identify the structural abnormalities in chromosomes and examples of cytogenetic disorders.	د. غادة صديق

Semester 2			
1- Genetics			
Lecture no.	**Topics Covered**	**Instructional objective**	**Faculty member**
41	Gene therapy (1)	Explain the methods of gene therapy.	د. غادة صديق
42	Gene therapy (2)	Identify vectors used in gene therapy.	د. غادة صديق
43	Branches of human genetics: Pharmacogenetic	Identify pharmacogenetics and personalized Medicine.	د. غادة صديق
44	Branches of human genetics: Epigenetic	Identify, describe and explain epigenetic mechanisms.	د. غادة صديق
45	Genetic engineering	To define genetic engineering.	د. أنمار أمير
46	Molecular basis of recombinant DNA technology	To understand the Genetic Engineering techniques.	د. أنمار أمير
47	Gene Cloning	To describe the principle and application of gene cloning	د. أنمار أمير
48	Gene linkage and crossing over	To describe the Meaning of linkage and crossing over.	د. أنمار أمير
49	Genetic basis of cancer	To understand the role of genetic in cancer.	د. أنمار أمير

Semester 2			
2- : Histology			
Lectural no.	**Topics Covered**	**Instructional objective**	**Faculty member**
50	Introduction	Explain types and classification of human tissues.	د. أروى حمزة
51	Simple epithelial tissues	Describe types, structure and locations of simple epithelial tissues.	د. أروى حمزة
52	Stratified epithelial	Describe types, structure and locations of	د. أروى

	tissues	stratified epithelial tissues.	حمزة
53	Other types of epithelial tissues	There are several important types of epithelial tissues with important functions in the human body.	د. أروى حمزة
54	Connective tissues	Explain the types, structure, locations and functions of connective tissues..	د. أروى حمزة
55	Connective tissue proper	Definition, classification, locations and functions of connective tissue proper in the human body.	د. أروى حمزة
56	Specialized connective tissue: Cartilage	Definition, types, structure, locations and functions of human cartilaginous tissue.	د. أروى حمزة
57	Specialized connective tissue: Bone	Definition, types of bone, structure, functions in both infants and adults.	د. أروى حمزة
58	Blood and Lymph	Describe the structure and function of blood and lymph.	د. أروى حمزة
59	Muscle tissue	Explain the types, structure and locations of muscle tissues.	د. أروى حمزة
60	Nerve tissue	Explain the types, structure and locations of nerve tissues.	د. أروى حمزة

7. Instructional Objective of laboratory sessions

Topics Covered	Teaching Faculty	Weak	Instructional objective
The Compound Microscope	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	1st week	At end the student should be able to • Identify the parts of the Compound Microscope and explain the function of each part. • Learn how to calculate magnification power. • Learning how to carry & use a microscope for Focus a specimen.
Differential between Prokaryotic and Eukaryotic cells.	م. عبير حازم م.م.وليد اسماعيل	2nd week	• Determine whether a cell is a prokaryotic or a eukaryotic depending on its structure.

	م.م. رغد نبهان		• Determine whether a cell is a plant cell or an animal cell depending on its structure. • Identify the cells with their variations in size, shape and function.
Cell organelle	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	3rd week	• Describe the structure and function of cellular organelles visible with alight microscope.
Plasma membrane	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	4th week	• Describe the relationship of general structure and function of the plasma membrane. • Study the most important function of the plasma membrane from medical point of view.
Non living components	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	5th week	• Describe none living components of the cells.
Cell cycle &Cell division	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	6th	• Describe events associated with cell cycle. • Describe events associated with the binary fission and mitosis cell division.
Meiosis	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	7th	• DescribeeventsassociatedwiththeMeiosiscell division. • Compareandcontrastmitosisandmeiosis.
Gametogenesis, Fertilization, Development	م. عبير حازم م.م.وليد اسماعيل	8th	• Describe events associated with the Gametogenesis, Fertilization, Development, Differentiation.

	م.م. رغد نبهان		
The Chromosome	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	9th	* Describe the structure of usual chromosome visible with a light microscope.
Unusual Chromosome	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	10th	• Describe the structure of unusual chromosome visible with a light microscope.
Slides of the first course 2023-2024		11th	
Histology & Simple Epithelial Tissue	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	12th	• Describe the relationship of histology and the tissues. • Determine the types of tissues. • Describe the classes of epithelial tissues. • Identify the types of simple epithelial tissues.
Stratified Epithelial Tissue	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	13th	• Identify the types of stratified epithelial tissue.
Connective tissue	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	14th	• Describe the components of connective tissue.
Classification of connective tissue	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	15 th	• Classify the connective tissue. • Identify the types of these tissue.
Bone	م. عبير حازم م.م.وليد	16th	• Study the components of bone and identify the types of it.

	اسماعيل م.م. رغد نبهان		
Development of bone	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	17th	• Describe events associated with the development of bone.
Connective tissue (Blood)	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	18th	• Study the components of blood.
Muscular Tissues.	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	19th	• Distinguished types of muscle tissue
Nervous Tissues.	م. عبير حازم م.م.وليد اسماعيل م.م. رغد نبهان	20th	• Describe the components of the human nervous system (NS).
Slides of the second course 2023-2024		21th	

8- Tables of Course

Course Duration: 5 weeks

- **Lecture Duration:** 1 hour per session
- **Course Materials:** Textbook, lecture slides, online resources, quizzes, TBL and practical lab sessions

2:30-3:30	1:30-2:30	12:30-1:30	11:30-12:30	10:30-11:30	9:30-10:30	8:30-9:30	الساعة / اليوم
							السبت
	أحياء مناقشة A مناقشةTBL	أحياء مناقشة B	أحياء طبية نظريA		أحياء طبية نظريB		الاحد
		عملي	عملي	عملي	عملي	عملي	الاثنين
عملي	عملي	عملي	عملي	عملي			الثلاثاء
							الاربعاء
							الخميس

9. Learning Resources:

- Biology, Mader.
- Human biology, Mader.
- Atlas of biology

10. Additional information:

- **Lecturer/ theory:** Dr. Nada Fadil, Dr. Ghada Sedeq, Dr. Anmar Alrawas and Dr. Arwa Hamza.
- **Lecturer/ practical:** Abeer Hazim, Waleed Ismael and Raghad Nabhan.

Medical Chemistry for the first year

1. General information:

- **Subject**: Medical Chemistry
- **Code**: (106)
- **Credit hours**: 6 (60 theortical hours and 60 practical hours).
- **Course Language**: English.

2.Syllabus:

- Lab Safety and Green Chemistry:

- Introduction
- Chemical laboratory safety and security.
- Green chemistry.

- **Analytic Chemistry**:

- Introduction.
- Radioactivity and medical uses of radioactive isotopes.
- Acids, bases, and salts of medical interests.
- International system of units.
- pH concept, acid-base balance.
- Solutions and methods of expressing concentration.
- Buffers and buffer systems of physiological importance.
- Colloidal chemistry and biological systems, dialysis and living system.
- Chelation and possible applications in medicine.
- Ions in living system and their importance.
- Pollutions.
- Prevention and cure of pollution.

- **Organic Chemistry**:

- Hydrocarbons
- Alcohols and phenols
- Carbonyl compounds (aldehydes and ketones)
- Carboxylic acids and some of their derivatives.
- Esters.
- Amines.
- Heterocyclic compounds.

- Biochemistry:

- Introduction to carbohydrates.
- The Stereochemistry of carbohydrates.
- Physical and chemical properties of monosaccharides.

- Disaccharides, Oligosaccharides and Polysaccharides.
- Introduction to lipids.
- Nomenclature and importance of fatty acids.
- Chemical properties of fats and oils.
- Structures of phosphoglycerides, membrane structure and steroids.
- Introduction to proteins.
- Reaction of amino acids.
- The structure and functions of protein.
- Introduction to nucleic acids.
- General nucleotide structure.
- DNA replication.
- Ribonucleic acid (RNA).
- The Genetic code.

- **Practical Part:**

- Introduction
- Scientific lab. Equipment.
- Lab. Safety.
- pH meter.
- Chemical analysis.
- Titration (Acid base).
- Titration (Redox).
- Organic chemistry
- Carbohydrates (1)
- Carbohydrates (2)
- Carbohydrates (3)
- Carbohydrates (4)
- Proteins (1)
- Proteins (2)
- Enzyme.

3.**Learning Objective:**

Knowledge

- **Lab Safety and Green Chemistry**: Students will be able to understand how to safe themselves during their work in the chemical labs and know the general aspect of green chemistry.
- : **Analytic Chemistry**: Students will be able to know the important aspects of analytic chemistry related to medicine including medical uses of radioactive substances, colloid

chemistry and chelation, identify substances present in human like acids, bases, and salts, describe international system of units, pH and acid base balance in human.

- **Organic chemistry:** Students will be able to identify the important subjects related to organic chemistry that prepare them to study specially the biochemistry subject in the second year like isomerism, alcohols, aldehydes and ketones, carboxylic acids, alkaloids and heterocyclic compounds, of Sulphur compounds and antibiotics.
- **Biochemistry:** Students will be able to identify the important introduction topics in biochemistry that prepares them to study the metabolism of these subject in detail in the second year.

Skills

- **Equipment and Instruments:** The students will be able to name the equipment and instruments present in lab related to their subjects like pH meter and practice to use them.
- **Conduction of the experiment and interpretation of the results:** Th e students will be able to do and interpret the results of chemical experiment reactions like titration, important organic chemistry reactions, reactions of enzymes.
- **Identification of unknown:** The students will be able to identify the unknown chemical substances and to differentiate practically between different types of proteins or carbohydrates.

Attitudes

The students will be fully committed to chemical safety and security conditions when working inside the laboratory, such as wearing lab coats, masks and gloves and dealing quickly and correctly with any emergency.

4. Outcomes for Educational Program

Knowledge

The graduates will have a thorough understanding of the general aspects of chemistry in general with special attention to branches of chemistry related to medicine like organic chemistry, analytic chemistry and biochemistry to be ready for the future study and understanding of subsequent subjects in the following years specially the subject of biochemistry in the 2nd year.

Skills

The graduates will be ready for laboratory work in the 2nd year by having an excellent skill in using the materials and equipment that support them in verification, measurement and evaluation in addition the graduate will have a good skill in dealing with chemicals in a way that correspond to safety and chemical security conditions.

Attitude

The graduates will act properly in handling chemicals in addition to act in a scientifically correct manner in the event of any emergency.

5.Course Overview

- The course is composed of two parts as follow:

1.Theoretical Part . 2. Practical part

- **Duration**:

For the theoretical part:

- Weekly Hours: Two hours per week (first semester)
- Weekly Hours: Two hours per week (second semester)
- Total: 60 hours per academic year

For the practical part:

- Weekly Hours: Two hours per week (first semester)
- Weekly Hours: Two hours per week (second semester)
- Total: 60 hours per academic year.

- **Location**:

-For the theoretical part: Lecture Hall in the college.
-For the practical part: Chemistry and biochemistry lab. In the college.

- **Format**:

<u>- For the theoretical part</u>

- Tutor-Centered.
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching.
- Team Based Learning (TBL)
  - *<u>For the practical part.</u>*
- Problem-Based Learning (PBL).
- Conduct laboratory experiments.
- Discuss and interpret the results.
- Lectures and Seminars.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams, identification of unknown.

- **Summative Assessments**: Midterm theoretical exams, end term theoretical and practical exams, first and second semesters practical exams.
- **Continuous Feedback**: Provided throughout the course.

Components of Assessment:

- Written theoretical Exams (70% of total grade)
- Practical Exams (20 % of total grade)
- Laboratory Performance and Logbook (5% of total grade)
- Theoretical Performance (5% of total grade)

-*Detailed Breakdown*

❖ **Written Theoretical Exams (70%)**:

- Midterm Exam: 20%. Covers the theoretical topics in the first semester, includes multiple-choice questions (MCQs) and short answer questions (SAQs)
- End term Exam: 50%. Comprehensive exam covering the entire theoretical course content, includes MCQs and SAQs.

❖ **Practical Exams (20%)**:

- First Semester Exam: 5%. Cover the practical topics in the first semester. Includes MCQs and practical exams performed in the lab.
- Second Semester Exam: 5%. Cover the practical topics in the second semester. Includes MCQs and practical exams performed in the lab.
- End term Exam: 10%. Comprehensive exam covering the entire practical course content, includes MCQs and practical exams performed in the lab.

❖ **Laboratory Performance and Logbook (5%)**:

- First Semester Laboratory Performance and Logbook: 2.5%. Assessed by the academic staff during laboratory work based on direct observation of the student laboratory performance and organization of the logbook.
- Second Semester Laboratory Performance and Logbook: 2.5%. Assessed by the academic staff during laboratory work based on direct observation of the student laboratory performance and organization of the logbook.

❖ **Theoretical Performance (5%)**

- First Semester theoretical Performance: 2.5%. Assessed by the academic staff during theoretical lecture and TBL. Based on student participation and interaction in the lecture, in addition to evaluate the results of students' answers of TBL questions.

- Second Semester theoretical Performance: 2.5%. Assessed by the academic staff during theoretical lecture and TBL. Based on student participation and interaction in the lecture, in addition to evaluate the results of students' answers of TBL questions.

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment:** Assignments, quizzes and presentations.
- **Blueprint for final exam.**

Blueprint for medical chemistry

Group No.: ……

College/ Department: college of medicine/ dept. of chemistry and biochemistry

Unit/ Course/ Subject: ……written assessment exam for 1st stage (finel exam).

Year: 2023/2024

		Unit LOs	I	F	I*F	weight(I*F) /T	No. of marks for 75 questions exams(W*50)	No. of test items on each SLO	Cognitive Skill: Remembering(direct questiond)	Cognitive Skill: Understanding(indirect questions)	Cognitive Skill: Appl./ Problem solving	Ass.: MCQ	Ass.: EMQ
1	analytical chemistry	Introduction to chemistry	1	1	1	0.004739	0.2	1.0	1	0	0		
2		Chemical Laboratory Safety and security.	3	1	3	0.014218	0.7	2.0	1	1	0		
3		Green chemistry	3	2	6	0.028436	1.4	2.0	1	1	0		
4		Introduction to Radioactivity	2	2	4	0.018957	0.9	2.0	1	1	0		
5		Radioactivity and medical uses of radioactive isotopes.	3	3	9	0.042654	2.1	3.0	1	2	0		
6		Acids, bases, and salts of medical interests.	3	3	9	0.042654	2.1	3.0	1	2	0		
7		International system of units.	3	3	9	0.042654	2.1	3.0	1	2	0		
8		pH concept, acid-base balance.	3	3	9	0.042654	2.1	3.0	1	2	0		
9		Solutions and methods of expressing concentration.	2	3	6	0.028436	1.4	3.0	1	2	0		
10		Buffers and buffer systems of physiological importance.	3	3	9	0.042654	2.1	2.0	1	1	0		
11		Colloidal chemistry and biological systems, dialysis and living system.	3	3	9	0.042654	2.1	2.0	1	1	0		
12		Chelation and possible applications in medicine.	3	2	6	0.028436	1.4	1.0	1	0	0		
13		Ions in living system and their importance.	2	2	4	0.018957	0.9	1.0	0	1	0		
14		Pollutions Prevention and cure of pollution.	1	1	1	0.004739	0.2	2.0	1	1	0		
15	organic chemistry	Hydrocarbones(1)	3	2	6	0.028436	1.4	3.0	1	2	0		
16		Hydrocarbones(2)	3	2	6	0.028436	1.4	3.0	1	2	0		
17		Hydrocarbones(3)	3	2	6	0.028436	1.4	3.0	1	2	0		
18		Alcohols and phenols(1)	2	2	4	0.018957	0.9	3.0	1	2	0		
19		Alcohols and phenols(2)	2	2	4	0.018957	0.9	2.0	0	2	0		
20		Carbonyl compounds (aldehydes and ketones)(1)	3	1	3	0.014218	0.7	2.0	0	2	0		
21		Carbonyl compounds (aldehydes and ketones)(2)	3	1	3	0.014218	0.7	2.0	0	2	0		
22		Carboxylic acids and some of their derivatives(1)	2	2	4	0.018957	0.9	3.0	0	3	0		
23		Carboxylic acids and some of their derivatives(2)	2	2	4	0.018957	0.9	2.0	1	1	0		
24		Esters	1	1	1	0.004739	0.2	1.0	0	1	0	75	
25		Amines	2	1	2	0.009479	0.5	1.0	0	1	0		
26		Heterocyclic compounds			0	0	0.0	0.0	0	0	0		
27	biochemistry	Introduction to carbohydrates.	1	1	1	0.004739	0.2	1.0	1	0	0		
28		Classes of carbohydrates.	2	2	4	0.018957	0.9	1.0	1	0	0		
29		The Stereochemistry of carbohydrates.	3	1	3	0.014218	0.7	1.0	0	1	0		
30		Physical and chemical properties of monosaccharides.	3	2	6	0.028436	1.4	1.0	0	1	0		
31		Disaccharides.Oligosaccharides. Polysaccharides (1)	3	1	3	0.014218	0.7	1.0	1	0	0		
32		Disaccharides.Oligosaccharides. Polysaccharides (2)	3	2	6	0.028436	1.4	1.0	0	1	0		
33		Introduction to proteins.	3	3	9	0.042654	2.1	2.0	1	1	0		
34		Classification of amino acids.	3	3	9	0.042654	2.1	2.0	1	1	0		
35		Reaction of amino acids.	3	1	3	0.014218	0.7	1.0	1	0	0		
36		Classification of proteins.	3	2	6	0.028436	1.4	1.0	0	1	0		
37		Protein structure (1)	3	2	6	0.028436	1.4	2.0	1	1	0		
38		Protein structure (2)	3	3	9	0.042654	2.1	2.0	1	1	0		
39		Introduction of Lipids.			0	0	0.0	0.0	0	0	0		
40		Nomenclature and importance of fatty acids.			0	0	0.0	0.0	0	0	0		
41		Chemical properties of fats and oils.			0	0	0.0	0.0	0	0	0		
42		Structures of phosphoglycerides , membrane structure and steroids			0	0	0.0	0.0	0	0	0		
43		Introduction to nucleic acids.	2	1	2	0.009479	0.5	1.0	0	1	0		
44		General nucleotide structure.	2	1	2	0.009479	0.5	1.0	0	1	0		
45		DNA replication.	3	2	6	0.028436	1.4	2.0	0	1	1		
46		Ribonucleic acid (RNA).			0	0	0.0	0.0	0	0	0		
47		The Genetic code.			0	0	0.0	0.0	0	0	0		
total			101	77	203	0.962085	48.1	75	26	48	1	75	0

6.Instructional Objective of the lectures:

- **1st Semester**

Chapter: Lab Safety and Green Chemistry				
Week	**Lectures Title**	**No. of lectures**	**Faculty Member**	**Instructional Objectives**
1st and 2nd	Introduction	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to define the lab safety and green chemistry.
	Chemical Laboratory Safety and security.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to identify the general rules in lab safety and security.
	Green chemistry	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to identify the green chemistry and its importance.
Chapter: Analytic Chemistry				
Week	**Lectures Title**	**No. of lectures**	**Faculty Member**	**Instructional Objectives**
3rd-11th	Introduction.	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to have a general idea about analytic chemistry and its relationship with medical study.
	Radioactivity and medical uses of radioactive isotopes.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1- Identify the principle of radioactivity. 2-Explain the basic medical uses of radioactive substances in diagnosis and treatment of diseases.

	Acids, bases, and salts of medical interests.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Identify the main acids, bases, and salts present in human. 2- Relate the subject with diseases affecting human.
	International system of units.	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Demonstrate the international system of units in medicine. 2-Apply the interconversion between traditional and international units.
	pH concept, acid-base balance.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1- Understand the concept of pH and acid base balance. 2- Describe how the body can keep them in balance. 3- Define and classify acidosis and alkalosis.
	Solutions and methods of expressing concentration.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1- Classify solutions. 2- Describe the different methods for expressing the concentration of solutions.
	Buffers and buffer systems of physiological importance.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Define buffer. 2- Classify buffer system inside the body. 3-Explain the presence of constant pH in human blood.
	Colloidal chemistry and biological systems, dialysis and living system.	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1- Define colloidal chemistry. 2-Describe the biological system inside the body. 3- Correlate the concept of colloidal chemistry with its medical uses.
	Chelation and possible applications in medicine.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Define chelation. 2- Correlate the concept of chelation with its medical uses.

	Ions in living system and their importance.	2	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Define ions. 2-Classify ions. 3-Correlate the ions present in the body with their importance in human.
	Pollutions Prevention and cure of pollution.	1	Dr. Tamathir Abbas	At the end of the study, the students are supposed to be able to: 1-Define pollution. 2-Know the types of pollution. 3-Describe the ways of protection from pollution and how to deal with the poisoned person.
2nd Semester				
Chapter: Organic Chemistry				
Week	**Lectures Title**	**No. of lectures**	**Faculty Member**	**Instructional Objectives**
1st-7th	Hydrocarbons	3	Mr. Mohaymin Abd-Almonaim.	At the end of the study, the students are supposed to be able to: 1- Define hydrocarbons. 2-Classify hydrocarbons. 3-Describe the nomenclature, physical and chemical properties and the chemical reactions of alkanes, alkenes alkynes, benzene and aromatic hydrocarbons.
	Alcohols and phenols	2	Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to name alcohols and phenols, describe their physical and chemical properties and their chemical reactions.
	Carbonyl compounds (aldehydes and ketones)	2	. Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to name different carbonyl compounds, describe their physical and chemical properties and their chemical reactions.

	Carboxylic acids and some of their derivatives	2	Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to name of carboxylic acids and some of their derivatives, describe their physical and chemical properties and their chemical reactions.
	Esters	2	Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to name esters, describe their physical and chemical properties and their chemical reactions.
	Amines.	2	Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to: 1- Define amines. 2-Classify amines. 3- Name amines, describe their physical and chemical properties and their chemical reactions.
	Heterocyclic compounds	1	Mr. Mohaymin Abd-Almonaim	At the end of the study, the students are supposed to be able to: 1- Define heterocyclic compounds. 2-Classify heterocyclic compounds. 3- Name heterocyclic compounds, describe their physical and chemical properties and their chemical reactions.
Chapter: Biochemistry				
Week	**Lectures Title**	**No. of lectures**	**Faculty Member**	**Instructional Objectives**
8^{th}-15^{th}	Introduction to carbohydrates.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to: 1- Learn, what are the carbohydrates ? 2- List the importance of carbohydrates. 3- Classify carbohydrates.
	The Stereochemistry of carbohydrates.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to demonstrate the three dimensional and cyclic structures of carbohydrates.

	Physical and chemical properties of monosaccharides.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to relate the physical and chemical properties of monosaccharides with medicine.
	Disaccharides. Oligosaccharides. Polysaccharides.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to describe the importance and structures of disaccharides, oligosaccharides and polysaccharides in our life.
	Introduction of Lipids.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to: 1-Define lipids. 2-Describe the importance of lipids. 2- Classify lipids. 3-Compare between saturated and unsaturated fatty acids.
	Nomenclature and importance of fatty acids.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to name fatty acids by different ways of nomenclature and know their importance.
	Chemical properties of fats and oils.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to draw the products of hydrolysis, saponification, and hydrogenation reactions of triglycerides.
	Structures of phosphoglycerides , membrane structure and steroids.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to: 1-Describe the basic structures of other lipids, including waxes, phosphoglycerides, lecithin, cephalins, sphingolipids, and glycolipids. 2-Identify the importance of lipids in cell membrane structure. 3- Identify steroids specially cholesterol.
	Introduction to proteins.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to define and classify proteins and amino acids.

	Reaction of amino acids.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to identify the reactions of amino acids.
	The structure and functions of protein	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to: 1- Describe the primary, secondary, tertiary, and quaternary structure of proteins. 2- Correlate between the function of protein and human health.
	Introduction to nucleic acids.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to know the components of nucleic acids and nucleotides.
	General nucleotide structure.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to describe the primary structure of DNA and the 3D double-helix structure.
	DNA replication.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to identify DNA replication.
	Ribonucleic acid (RNA).	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to: 1- Identify the structure of RNA. 2-Describe the transcription of DNA to RNA.
	The Genetic code.	1	Mr. Mossab Askar	At the end of the study, the students are supposed to be able to define genetic code, translation, protein synthesis and mutations.

7.Instructional objectives of the laboratory sessions:

1st Semester

Week	Session Title (Each one session)	Faculty Member	Instructional Objectives
1st	Introduction	Dr. Tamathir Abbas	At the end, the students should know the rules of the work in the medical chemistry lab in following practical lessons.
2nd	Scientific lab. Equipment.	Dr. Tamathir Abbas	At the end, the students should be able to name the related equipment in lab and acquire a practical skill for their uses in the lab .
3rd	Lab. safety	Dr. Tamathir Abbas	At the end, the students should be able to use the available lab safety equipment in emergency.
4th	pH meter	Ms. Asmaa Hamza	At the end, the students should be able to use pH meter and interpret its results.
5th	Chemical analysis.	Mr. Mosaab Askar	At the end, the students should be able to know the theoretical and practical skills in chemical analysis.
6th	Titration (Acid base)	Ms. Asmaa Hamza	At the end, the students should be able to do acid base titration and interpret the results.
7th	Titration (Redox)	Ms. Asmaa Hamza	At the end, the students should be able to do redox titration and interpret the results.
8th	Organic chemistry (1)	Mr. Mohaymin Abd-Almonaim	At the end, the students should have theoretical and practical skills for analysis and interpretation of organic chemistry parameter results.
9th	Organic chemistry (2)	Mrs. Suzan sedqi	At the end, the students should have theoretical and practical skills for analysis and interpretation of organic chemistry parameter results.
10th	Identification of unknown (Formative	Academic Staff of Medical	At the end, the students should have theoretical and practical skills in identifying the unknown chemical

	assessment)	Chemistry	substances according to what they have learned in 1st semester.
11th	Revision	Academic Staff of Medical Chemistry	To remind students the skills learned previously in the first semester.
12th	Practical examination	Academic Staff of Medical Chemistry	To assess the students about the skills they acquired in their practical lessons in the first semester.
13th	Theoretical examination	Academic Staff of Medical Chemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the first semester.
2nd Semester			
1st	Carbohydrates (1)	Ms. Sarah Abdulelah	At the end, the students should be able to differentiate practically between different types of monosaccharides and interpret the results.
2nd	Carbohydrates (2)	Ms. Sarah Abdulelah	At the end, the students should be able to test the presence of carbohydrates in a specimen and interpret the results.
3rd	Carbohydrates (3)	Mr. Manhal Jalal	At the end, the students should be able to differentiate practically between different types of disaccharides, interpret the results and hydrolyze the disaccharides.
4th	Carbohydrates (4)	Mr. Mosaab Askar	At the end, the students should be able to differentiate practically between different types of polysaccharides, interpret the results and hydrolyze the polysaccharides.
5th	Identification of unknown (Formative assessment)	Academic Staff of Medical Chemistry	At the end, the students should have theoretical and practical skills in identifying the unknown carbohydrate substances according to what they have learned.
6th	Proteins (1)	Mr. Manhal Jalal	At the end, the students should be able to differentiate practically between different amino acids.
7th	Proteins (2)	Mr. Manhal Jalal	At the end, the students should be able to differentiate practically between different amino acids and proteins.

8th	Proteins (3)	Mr. Mohaymin Abd-Almonaim	At the end, the students should be able to precipitate the protein and use the general color reactions of amino acids and proteins to distinguish between them.
9th	Identification of unknown (Formative assessment)	Academic Staff of Medical Chemistry	At the end, the students should have theoretical and practical skills in identifying the unknown amino acids or protein substances according to what they have learned.
10th	Enzyme	Dr. Tamathir Abbas	At the end, the students should be able to analyze the enzymes and compare the effect of different factors on enzyme activity.
11th	Revision	Academic Staff of Medical Chemistry	To remind students of what they have learned previously in the second semester.
12th	Practical examination	Academic Staff of Medical Chemistry	To assess the students about the skills they acquired in their practical lessons in the second semester.
13th	Theoretical Examination	Academic Staff of Medical Chemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the second semester.
14th	Final practical examination	Academic Staff of Medical Chemistry	To assess the students about the skills they acquired in their practical lessons in the first and second semesters.
15th	Final theoretical examination	Academic Staff of Medical Chemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the first and second semesters.

8.Tables of the Course

الساعة / اليوم	٩:٣٠-٨:٣٠	١٠:٣٠-٩:٣٠	١١:٣٠-١٠:٣٠	١٢:٣٠-١١:٣٠	١:٣٠-١٢:٣٠	٢:٣٠-١:٣٠	٣:٣٠-٢:٣٠	٤:٣٠-٣:٣٠
الاحد	كيمياء طبيه اول نظري (B)	كيمياء طبيه اول نظري (B)	كيمياء طبيه اول نظري(A)	كيمياء طبيه اول نظري(A)		TBL (B)	TBL(A) الجزء النظري بالعملي كيمياء (B)	
الاثنين	كيمياء طبيه اول عملي ٢	كيمياء طبيه اول عملي ٣	كيمياء طبيه اول عملي ٤	كيمياء طبيه اول عملي ٥	كيمياء طبيه اول عملي ١		الجزء النظري بالعملي كيمياء (A)	
الثلاثاء			كيمياء طبيه اول عملي ٧	كيمياء طبيه اول عملي ٨	كيمياء طبيه اول عملي ٩	كيمياء طبيه اول عملي ١٠	كيمياء طبيه اول عملي ٦	
الاربعاء								
الخميس								

9.Learning Resources

I- Textbooks

1- Harper's illustrated biochemistry

Authors:

Rodwell VW
Bender DA
Botham KM
Kennelly PJ
Weil PA

Edition Number: 31st
Year of publication: 2018
Publishing Company: Mc Graw Hill Education / New York
Number of Pages: 2023

- It was chosen for students because it is a systematic course and includes the main topics that students need , in addition to containing images that help the student to understand the material.

2- The Chemical Basis of Life

Author:

George H. Schmid

Edition Number: 1st
Year of publication: 1982
Publishing Company: Little Brown and Company
Number of Pages: 941

II- Assistant Books

Title	Authors	Edition Number
Lippincott's Illustrated Reviews Biochemistry.	- Ferrier DR	6th edition

III- Assistant Links

https://classroom.google.com/u/0/c/NjIyNDg1NTM3Njgy

https://classroom.google.com/u/0/c/NjMzNDc0MjgzMzkz

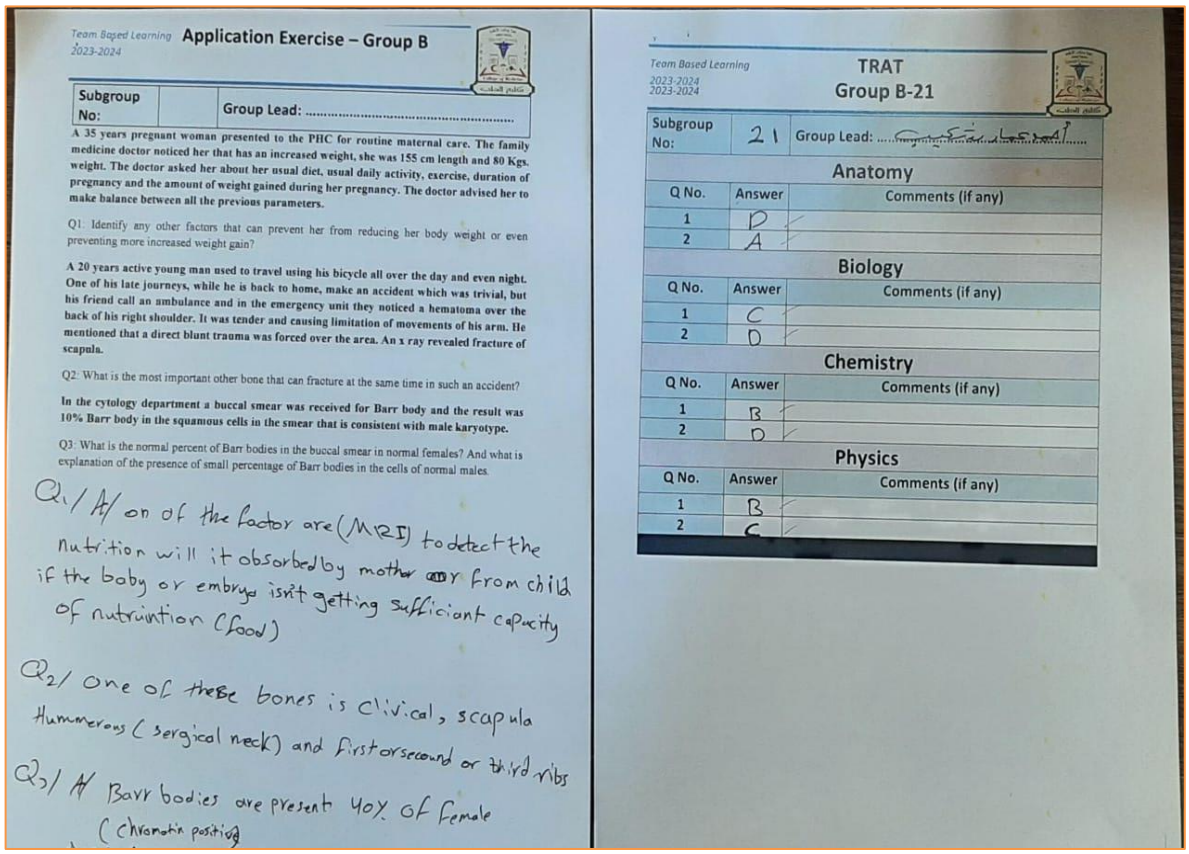
10.Additional Information

Dr. Tamathir Abbas (Email: tamathir.hamoudi@uoninevah.edu.iq

Mr. Mossab Askar (Email: mosaab.taha@uoninevah.edu.iq

11.Appendix

ورقة حضور الامتحان checklist



Team Based Learning 2023-2024 **Application Exercise – Group B**

Subgroup No:		Group Lead: .....

A 35 years pregnant woman presented to the PHC for routine maternal care. The family medicine doctor noticed her that has an increased weight, she was 155 cm length and 80 Kgs. weight. The doctor asked her about her usual diet, usual daily activity, exercise, duration of pregnancy and the amount of weight gained during her pregnancy. The doctor advised her to make balance between all the previous parameters.

Q1: Identify any other factors that can prevent her from reducing her body weight or even preventing more increased weight gain?

A 20 years active young man used to travel using his bicycle all over the day and even night. One of his late journeys, while he is back to home, make an accident which was trivial, but his friend call an ambulance and in the emergency unit they noticed a hematoma over the back of his right shoulder. It was tender and causing limitation of movements of his arm. He mentioned that a direct blunt trauma was forced over the area. An x ray revealed fracture of scapula.

Q2: What is the most important other bone that can fracture at the same time in such an accident?

In the cytology department a buccal smear was received for Barr body and the result was 10% Barr body in the squamous cells in the smear that is consistent with male karyotype.

Q3: What is the normal percent of Barr bodies in the buccal smear in normal females? And what is explanation of the presence of small percentage of Barr bodies in the cells of normal males.

Q1/ A/ on of the factor are (MRI) to detect the nutrition will it absorbed by mother or from child if the baby or embryo isn't getting sufficiant capacity of nutrintion (food)

Q2/ One of these bones is clivical, scapula Hummerous (sergical neck) and first or second or third ribs

Q3/ A/ Barr bodies are present 40% of female (Chromatin positive)

Team Based Learning 2023-2024 2023-2024 **TRAT Group B-21**

Subgroup No:	21	Group Lead: .....

Anatomy

Q No.	Answer	Comments (if any)
1	D	
2	A	

Biology

Q No.	Answer	Comments (if any)
1	C	
2	D	

Chemistry

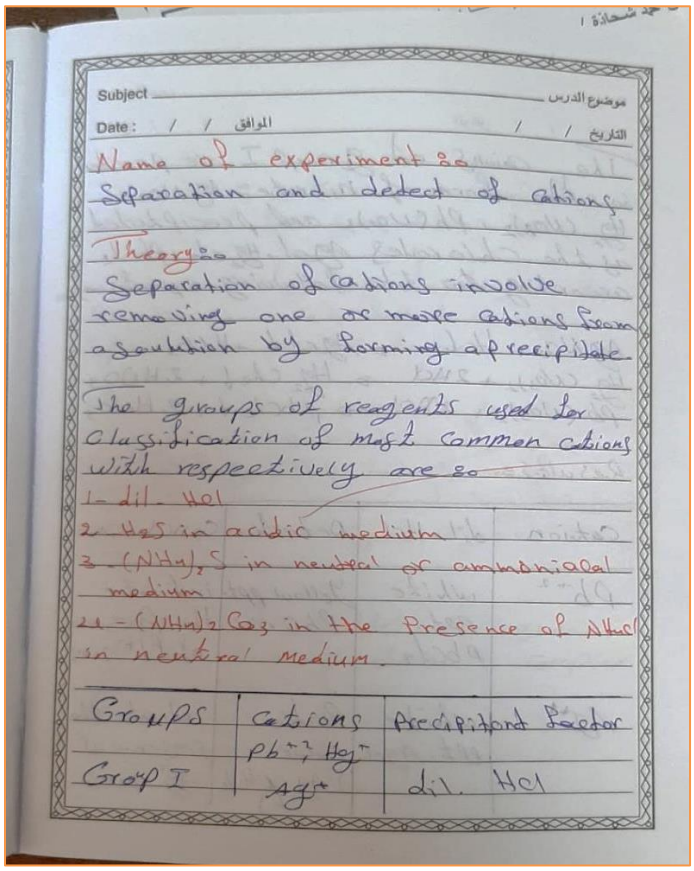
Q No.	Answer	Comments (if any)
1	B	
2	D	

Physics

Q No.	Answer	Comments (if any)
1	B	
2	C	

ت	الاسماء	الملاحظات	التوقيع
1	احمد عمار شكيب مجد	مسؤول المجموعة	
2	عمار شامل يونس عبدالله		
3	بسام معتز عازم / استضافة		
4	دلال زياد مصطفى/موازي دولي/نقل		
5	مصطفى وائل ذنون يونس		
6	رنا زياد فاخر الياس		
7	مريم ثامر عزيز يونس/موازي		
8	منار عباس فاضل خليل/موازي		
9	عمر احمد هادي سعيد		
10	كوثر رائد مجيد		
11	.....		
12	.....		

First page of log book.



Subject ... موضوع الدرس

Date : / / الموافق ... / / التاريخ

Name of experiment :-

Separation and detect of cations

Theory :-

Separation of cations involve removing one or more cations from a solution by forming a precipitate.

The groups of reagents used for classification of most common cations with respectively are :-

1- dil. HCl

2- H_2S in acidic medium

3- $(NH_4)_2S$ in neutral or ammonial medium

4- $(NH_4)_2CO_3$ in the presence of NH_4Cl in neutral medium.

Groups	Cations	Precipitant reactor
Grop I	Pb^{+2}, Hg^{+} Ag^{+}	dil. HCl

حقوق الانسان والديمقراطية للمرحلة الاولى

1.معلومات عامة

- الموضوع: حقوق الانسان والديمقراطية
- رمز المادة: (107)
- الوحدات: 2
- اللغة التي تدرس بها المادة: اللغة العربية

2.المفردات:

- حقوق الانسان
  - مدخل عام
  - تطور مفهوم حقوق الانسان عبر الأزمنة
  - اليات الأمم المتحدة والمنظمات والهيئات الدولية المعنية بتطبيقها
  - واجبات الانسان واخلاقيات المهنة
  - قانون انضباط الطلبة
- الديمقراطية
  - مفهوم وتاريخ الديمقراطية وسمات النظام الديمقراطي
  - الدستور والانتخابات
  - العلاقة مع حقوق الانسان
  - جرائم الإبادة الجماعية
  - الحكم الرشيد والديمقراطية المعاصرة

3.اهداف التعلم:

- المعرفة:
  - التعريف على مفاهيم حقوق الانسان والديمقراطية ومعرفة أنواعها وخصائصها
  - التعرف على تطور المفاهيم عبر العصور
  - الاطلاع على المواثيق والاعلانات والاتفاقيات الدولية
- المهارات:
  - القدرة على تحليل مضمون المواثيق الدولية والقوانين الخاصة بالموضوع
  - ترسيخ فكرة حقوق الانسان والقدرة على استخدامها وتطبيقها
  - الدفاع عن المفهوم باعتباره من المكاسب الحضارية
- المواقف:
  - تبني مفهوم الديمقراطية وحقوق الانسان في الحياة العامة
  - دمج المفاهيم في شخصية الطبيب عند تعامله مع المرضى
  - التصرف الحكيم والمسؤول في المواقف التي تتطلب الإشارة الى مفهوم حقوق الانسان

4.مخرجات المنهاج:

- المعرفة:
  - الاطلاع الواسع على برامج واتفاقيات حقوق الانسان
  - معرفة مفهوم الديمقراطية بمعناها الواسع واهمية تطبيقها في المجتمعات المتحضرة وفي مجال العمل

- المهارات:
  - القابلية على تحليل المواقف التي يتعرض لها الطبيب وتطبيق مفهوم حقوق الانسان فيها كون الطب مهنة إنسانية وقريبة جدا من المفاهيم المتعلقة بالرحمة والرأفة وحقوق الانسان
  - تطبيق النظام الديمقراطي في الحياة العامة وفي مجال العمل والتعامل مع الاقران
- المواقف:
  - دمج المفهوم في المجتمع ومحاولة إيصال الفكرة لاكبر عدد من الناس في المجتمع

5.نظرة عامة على المادة:

- يتكون المنهاج من الجزء النظري فقط
- المدة: ساعة دراسية واحدة في الأسبوع – الفصلين الأول والثاني – المجموع 30 ساعة
- مكان التدريس: قاعة المحاضرات
- طريقة التدريس: الالقاء المعتمد على الأستاذ
- طرق الاختبار: الاختبار الورقي: امتحان نصف السنة والامتحان النهائي
- مكونات التقييم: الاختبار النظري الورقي – 100 جرجة
- تفصيل تقسيم الدرجة:
  - السعي السنوي (40 درجة)
  - الامتحان النهائي (60 درجة)
- درجة النجاح: 50%

6.الأهداف التعليمية للمحاضرات:

ت	عنوان المحاضرة	عدد الساعات	التدريسي	الأهداف التعليمية
1	مدخل عام الى مفهوم حقوق الانسان	1	م. م. محمود محمد عبيد	مدخل عام الى مفهوم حقوق الانسان
2	جذور حقوق الإنسان وتطورها في تاريخ البشرية	1	م. م. محمود محمد عبيد	جذور حقوق الإنسان وتطورها في تاريخ البشرية
3	تطور فكرة حماية حقوق الانسان في العصر الحديث	1	م. م. محمود محمد عبيد	تطور فكرة حماية حقوق الانسان في العصر الحديث
4	المجتمع الدولي وحقوق الانسان المعاصر	1	م. م. محمود محمد عبيد	المجتمع الدولي وحقوق الانسان المعاصر
5	اليات الأمم المتحدة لحماية حقوق الانسان	2	م. م. محمود محمد عبيد	اليات الأمم المتحدة لحماية حقوق الانسان
6	واجبات الإنسان والقيود الواردة على ممارسة حقوق الإنسان	3	م. م. محمود محمد عبيد	واجبات الإنسان والقيود الواردة على ممارسة حقوق الإنسان
7	المنظمات والهيئات الدولية المعنية بالدفاع عن حقوق الانسان	1	م. م. محمود محمد عبيد	المنظمات والهيئات الدولية المعنية بالدفاع عن حقوق الانسان
8	اخلاقيات المهنة	3	م. م. محمود محمد عبيد	اخلاقيات المهنة
9	قانون انضباط الطلبة في مؤسسات وزارة التعليم العالي والبحث العلمي	3	م. م. محمود محمد عبيد	قانون انضباط الطلبة في مؤسسات وزارة التعليم العالي والبحث العلمي
10	مفهوم وتأريخ الديمقراطية	1	م. م. محمود محمد عبيد	مفهوم وتأريخ الديمقراطية

11	سمات النظام الديمقراطي ومكوناته	1	م. م. محمود محمد عبيد	سمات النظام الديمقراطي ومكوناته
12	الدستور والديمقراطية	2	م. م. محمود محمد عبيد	الدستور والديمقراطية
13	الانتخابات	2	م. م. محمود محمد عبيد	الانتخابات
14	مؤسسات المجتمع المدني والديمقراطية	1	م. م. محمود محمد عبيد	مؤسسات المجتمع المدني والديمقراطية
15	العلاقة بين حقوق الإنسان والديمقراطية	1	م. م. محمود محمد عبيد	العلاقة بين حقوق الإنسان والديمقراطية
16	جرائم الإبادة الجماعية	1	م. م. محمود محمد عبيد	جرائم الإبادة الجماعية
17	ضمانات الحريات والحقوق العامة	2	م. م. محمود محمد عبيد	ضمانات الحريات والحقوق العامة
18	الحكم الرشيد	1	م. م. محمود محمد عبيد	الحكم الرشيد
19	الديمقراطية المعاصرة	2	م. م. محمود محمد عبيد	الديمقراطية المعاصرة

7.الأهداف التعليمية للجزء العملي:

لا يوجد جزء عملي.

8.جدول التدريس:

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

المباحة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠	٣,٣٠ – ٤,٣٠
السبت	تشريح A		كيمياء A		انكليزي A	الديمقراطية وحقوق الانسان A	اساسيات الطب A	انكليزي A
	كيمياء B		تشريح B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	فيزياء A		احياء A		حاسبات A	احياء مناقشة A	مناقشة TBL A	
	احياء B		فيزياء B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A	الجزء النظري من الجانب العملي كيمياء A	
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

الدكتور
اسامة ميكس السمعاوي
مسجل كلية الطب / جامعة نينوى

9. المصادر:

كتاب حقوق الانسان

والديمقراطية، غسان كريم مجذاب، امجد زين العابدين طعمة.

10.المزيد من المعلومات:

التواصل مع مدرس المادة:م. م. محمود محمد عبيد
Mahmood.obaid@uomosul.edu.iq

English for the first-year

1. General Information:

. **Subject**: English
. **Code**: (107 u)
. **Credit hours**: 2 units(Theoretical 30 hours).
. **Course Language**: English.

2. Syllabus:

. Introduction and overview (overview of the topics to be studied during this school year).

- Understanding language basics.
- Building vocabulary.
- Mastering Grammer rules.
- Pronunciation practice.
- Listening and speaking skills.
- Writing proficiency.
- Polite Greetings.
- Sentence structure (How English sentences are built).

. Pronouns:

- The verb to be.
- Self-introduction.
- Countries
- Plurals
- Saying years

. Presenting complaints:

- How to do history taking?
- Gentle questions.
- Body parts.
- Who is a cardiologist?
- Dr. Gillian Henderson
- Describing Medical Conditions.
- Listening (identifying the correct diagnosis)
- Understanding patients (Tenses in PC)
- Communication (The importance proper communication in healthcare)
- Job titles
- Case report.

. English Tenses:

- The importance of using the right tenses.
- Present Simple.
- Present Continuous.
- Present Perfect.
- Present Perfect Continuous.

. Working in general practice:

- Medical job
- A GP's job
- Language spot (Present perfect and Past Simple)
- A case history
- Sign and Symptom.
- Interacting with patients.
- Short questions in the general history
- Non-technical language
- Short questions
- A referral letter.

. Instructions and procedures:

- Preparing for the first ward round
- Giving instructions
- Instructions for procedures
- Making polite requests to patients
- Reading: Dr. Franco Carulli

. Explaining and reassuring:

- Medical terms (Lay, sub-technical & technical)
- Prefixes, Roots, Suffixes
- Explaining gastroscopy
- Explaining a procedure

. Dealing with Medication:

- Routes of drug administration
- Listen and complete exercises
- Effects of Drugs
- Six RIGHTS
- Reading: Joyce Carne
- Explaining side effects

. Lifestyle:

- Lifestyle medicine
- Encouraging patients and making suggestions

. Parents and young children:

- A pediatrician
- What can make a great pediatrician?
- Qualities of a good pediatrician
- Meningitis
- Reassuring an anxious person

. Communication:

- Patient-Centered Approach
- Open and closed questions
- Listening comprehension

. Working in Psychiatry:

- Who is a psychiatrist
- Describing patients
- Language spot (Past simple and past perfect)
- Wishes and consequences in negotiations

. Terminal Illness & Dying:

- Reactions to bad news
- Dealing with patients' emotions
- Informing a relative about a death

3. Learning Objective:

Knowledge:

. Acquire a comprehensive understanding of medical terminology, including terms related to anatomy, diseases, treatments and diagnostic procedures.

. Learn the structure and language used in various medical documents, such as patient histories, clinical notes, and research articles.

. Understand the rules of English grammar and syntax to construct accurate and clear sentences.

Skills:

. Write clear and well-organized medical reports.

. Enhance listening skills to accurately understand patient concerns, colleague communications, and medical lectures.

. Develop the ability to efficiently read and comprehend English texts.

Attitudes:

. Demonstrate empathy and compassion in all patient interactions, recognizing the importance of patient-centered care.

. Build confidence in communicating effectively in English, ensuring clarity and precision in both spoken and written interactions.

4. Outcomes for Educational program:

Knowledge:

. Students will accurately use and understand a broad range of medical terminology.

. Students will demonstrate knowledge of the structure and language used in various medical documents, such as patient histories and clinical notes.

. Students will construct grammatically correct and clear sentences appropriate for medical contexts.

Skills:

. Students will write clear, concise, and well-structured medical reports.

. Students will accurately understand patient concerns.

. Students will efficiently read and comprehend English texts, research articles, and clinical guidelines.

Attitudes:

. Students will demonstrate empathy and compassion in all patient interactions, emphasizing patient-centered care.

. Students will show a commitment to continuous improvement and lifelong learning in their English language skills and medical communication.

. Students will communicate with confidence and clarity, ensuring precise and effective interactions in both spoken and written English.

5. Course Overview:

. The course is composed only of a theoretical part.

. Duration:

For the theoretical part:

- Weekly hours: Two hours per week (first semester)
- Weekly hours: Two hours per week (Second semester)
- Total: 30 hours per academic year.

. Location:

- Lecture Hall

. Format:

. Tutor-Centered

. Student-Centered: Motivating students to discuss and present parts of the lecture.

. Interactive Teaching

. Assessment methods:

Types of Assessment:

. Formative Assessments: Quizzes.

. Summative Assessments: TBL exams, midterm exam, final exam.

. Continuous Feedback: Provided throughout the academic course.

-Components of Assessments:

. Written Exams (100% of total grade)

-Detailed Breakdown:

. Written Exams (100%):

- Midterm Exam (30%): (covers topics from the first half of the course, (MCQs).
- Team-Based Learning activities (5%): This activity is carried out every week throughout the academic study period. This activity usually takes place online.
- Quizzes, homework (5%): These activities are conducted throughout the academic year to improve students' performance in English.
- Final exam (60%): A comprehensive exam covering the entire course content, (MCQs).

Pass/Fall Criteria:

. Pass Mark: 50%

. Continuous Assessment: is achieved via assignment, quizzes, and discussions.

Blueprint for the English final exam/ 1st trial

Total 80 MCQ:

Subject	Remembering questions	Understanding questions	Problem solving questions
Presenting Complaints	10	2	0
English tenses	5	12	0
Working in general practice	14	1	0
Instructions and procedures	10	0	0
Explaining and reassuring	9	1	0
Dealing with medication	7	0	0
Lifestyle	4	0	0
Parents and young children	3	0	0

Working in Psychiatry	1	0	0
Terminal illness and dying	1	0	0
Total score=80			

6. Instructional Objectives of the course lectures:

No	Title of lecture	Faculty Members	No. of lecture	Instructional objective
1	Introduction and overview	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	2	Understand the scope and objectives of the English course for the academic year.
2	Pronouns	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	3	-Identify and classify different types of pronouns, including personal, demonstrative, possessive, reflexive, and relative pronouns. -Understand the function of pronouns in replacing nouns to avoid repetition and maintain clarity in communication. -Understand the different forms of "to be" (am, is, are, was, were) and their appropriate usage in different contexts. -Learn how to introduce oneself confidently and effectively in English, including providing personal information, interests, and background. -Learn the names and locations of countries around the world. -Understand the rules for forming plurals in English, including adding "-s", "-es", or

				changing the spelling of the word. -Learn how to express years and dates correctly in English.
3.	Presenting Complaints	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	2	-Understand the process of presenting patient complaints in a medical context, including the chief complaint and associated symptoms. -Develop interviewing skills to gather relevant information while establishing rapport and trust with patients. -Learn to ask sensitive and empathetic questions to gather information from patients while minimizing discomfort or anxiety -Identify and describe the names and functions of major anatomical body parts and systems. -Learn medical terminology related to body parts and their associated conditions or diseases -Understand the role and responsibilities of a cardiologist in diagnosing and treating cardiovascular diseases. -Develop skills in accurately describing medical conditions, including symptoms, causes, and treatment options. -Enhance listening comprehension skills by accurately identifying medical conditions and diagnoses from patient descriptions or medical scenarios. -Understand the use of different tenses in patient-centered communication to describe past medical events, present symptoms, and future

				treatment plans.
4.	English Tenses	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Understand the concept of tense in English grammar and its role in indicating the time of an action or event. -Identify the various tenses used in English and their corresponding forms and functions.
5.	Working in general practice	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Understand the roles, responsibilities, and duties associated with working in a medical profession, particularly in a general practice setting. -Learn about the specific responsibilities and tasks performed by a general practitioner (GP) in primary healthcare settings. -Understand the importance of gathering comprehensive patient histories, including medical, social, and family histories. -Identify and differentiate between signs and symptoms of medical conditions. -Develop effective communication skills for interacting with patients in a general practice setting. -Learn how to ask concise and relevant questions during a general medical history-taking session. -Develop the ability to communicate medical information and instructions using clear, non-technical language that is easily understood by patients. -Learn how to ask short, direct questions to gather specific

				information from patients during consultations or examinations. -Understand the purpose and components of a referral letter in healthcare practice. - Learn how to write a clear, concise, and informative referral letter to specialist healthcare providers, including relevant patient information, medical history, and reason for referral.
6.	Instructions and procedures	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Understand the purpose and process of the first ward round in a clinical setting. -Learn how to give clear, concise, and accurate instructions to patients, caregivers, and colleagues. -Understand the steps and protocols involved in performing medical procedures safely and accurately. -Learn how to communicate instructions for procedures clearly and comprehensively to patients and healthcare team members. -Develop communication skills for making polite and respectful requests to patients in a healthcare setting.
7.	Explaining and reassuring	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Understand the classification of medical terminology into lay terms (common language), sub-technical terms (specialized but understandable by non-experts), and technical terms (specific to the medical profession). -Understand the structure of medical terms and their components, including prefixes (added to the beginning), roots (core meaning), and suffixes

				(added to the end). -Learn common prefixes, roots, and suffixes used in medical terminology and their meanings. -Understand the purpose, procedure, and significance of gastroscopy (also known as upper endoscopy). -Learn effective strategies for explaining medical procedures to patients, including rationale, steps, and expected outcomes.
8.	Dealing with Medication	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Learn the advantages, disadvantages, and considerations associated with each route of administration. -Enhance listening skills related to medication management by actively listening to instructions, patient histories, and medication-related scenarios. -Understand the pharmacological effects of drugs on the body, including therapeutic effects, side effects, adverse reactions, and interactions. -Familiarize with the "Six Rights" of medication administration: right patient, right drug, right dose, right route, right time, and right. -Develop communication skills for explaining medication side effects to patients, caregivers, and healthcare professionals.
9.	Lifestyle & Parents and young children	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	1	-Understand the principles and practices of lifestyle medicine, which focuses on the role of lifestyle factors in preventing and managing chronic diseases. -Understand the role and responsibilities of a pediatrician in providing medical care to

				infants, children, and adolescents. -Explore the qualities and characteristics that contribute to being an exceptional pediatrician. -Understand the causes, symptoms, diagnosis, treatment, and prevention of meningitis, particularly in young children. -Develop communication skills for effectively reassuring anxious parents or caregivers of young children.
10.	Communication, Working in Psychiatry, and Terminal Illness & Dying	Asst. Lect. Ibrahim Alkasim (Group B) Asst. Lect. Hamid Mahfodh (Group A)	2	-Understand the principles and importance of a patient-centered approach in healthcare communication. -Understand the differences between open and closed questions and their respective uses in healthcare communication. -Develop listening comprehension skills to accurately understand and interpret verbal and non-verbal cues from patients. -Understand the role and responsibilities of a psychiatrist in diagnosing, treating, and managing mental health disorders. -Develop skills in accurately describing patients' psychiatric symptoms, behaviors, and mental health status. -Understand the structure and usage of past simple and past perfect tenses in English. -Learn to navigate sensitive conversations about patients' wishes, treatment options, and potential consequences in

				psychiatric care. -Understand common emotional reactions and coping mechanisms in patients and families facing terminal illness or death. -Develop skills in managing and responding to patients' and families' emotional distress, anxiety, and uncertainty surrounding terminal illness and dying. -Learn communication techniques.

7. Instructional objectives of the practical sessions:

Not applicable.

8. Tables of the Course:

جامعة نيلوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠	٣,٣٠ – ٤,٣٠
السبت	فيزياء A		احياء A		انكليزي A	الديمقراطية وحقوق الانسان A	احياء مناقشة A	انكليزي A
	احياء B		فيزياء B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	تشريح A		كيمياء A		اساسيات الطب A	حاسبات A	مناقشة TBL A	الجزء النظري من الجانب العملي كيمياء A
	كيمياء B		تشريح B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	قاعة النظري مشغولة من قبل طلبة المرحلة الرابعة		تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

بطن الطفا ٢٠٢٣/١١/١٥

الدكتور أسامة مدحت السبعاوي
مسهل كلية الطب / جامعة نينوى
٢٠٢٣ / ١١ / ١٥

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

المناعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠	٣,٣٠ – ٤,٣٠
السبت	تشريح A		كيمياء A		انكليزي A	الديمقراطية وحقوق الانسان A	اساسيات الطب A	انكليزي A
	كيمياء B		تشريح B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	فيزياء A		احياء A		حاسبات A	احياء مناقشة A	مناقشة TBL A	
	احياء B		فيزياء B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A	الجزء النظري من الجانب العملي كيمياء A	
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي ٦ كيمياء عملي ٧ فيزياء عملي ٨ احياء عملي ٩ حاسبات عملي ١٠	تشريح عملي ٧ كيمياء عملي ٨ فيزياء عملي ٩ احياء عملي ١٠ حاسبات عملي ٦	تشريح عملي ٨ كيمياء عملي ٩ فيزياء عملي ١٠ احياء عملي ٦ حاسبات عملي ٧	تشريح عملي ٩ كيمياء عملي ١٠ فيزياء عملي ٦ احياء عملي ٧ حاسبات عملي ٨	تشريح عملي ١٠ كيمياء عملي ٦ فيزياء عملي ٧ احياء عملي ٨ حاسبات عملي ٩	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

الدكتور
اسامة ميسر السبعاوي
مسجل كلية الطب / جامعة نينوى

9. Learning Resources:

- **Text books:**
  - *. New Headway Beginner Student's Book*
  - *. Oxford English for Careers: Medicine 1 Student's Book*

10. Additional Information:

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Location: Internal Medicine

College of medicine _ Ninevah University

Second Year Curriculum

منهاج المرحلة الثانية

المرحلة الثانية							
	المادة	The Subject	النظري	العملي	المناقشة	عدد الوحدات	كود المادة
1	الفسلجة الطبية	Medical Physiology	150	90	30	13	208
2	الاجنة	Embryology	30			2	209
3	التشريح	Anatomy	60	180	30	10	210
4	الانسجة	Hidtology	45	90		6	211
5	جرائم نظام البعث في العراق	Crimes of the Ba'ath Regime in Iraq	30			2	212
6	الكيمياء الحياتية	Biochemistry	90	60	30	8	213
		المجموع	405	420	90	41	

2023_2024

Medical Physiology for the second year

1.General Information:

- **Subject**: Medical physiology
- **Code**: **(208)**
- **Credit hours**: 13 units(For the theoretical part / Total: 150 hours per academic year

  For the practical part/ Total 90 hours per academic year

  Total / 240 hours)
- **Course Language**: English.

2.Syllabus:

Theory:

Cell Physiology & body fluid

1. Introduction.
2. Definition of Physiology.
3. Homeostasis.
4. Structures of the cell and cell membrane.
5. The transport through the cell membrane.
6. Passive transport.
7. Active transport.
8. The extracellular and intracellular fluids.
9. Osmosis.

- Physiology of Blood

1. General functions of blood.
2. Blood cells.
3. Hemoglobin.
4. White Blood Cells.
5. Monocyte-Macrophage Cell System
6. Platelet function & coagulation.
7. Immunity.
8. Blood Types.

Physiology of Muscle & Nerve

1. Genesis of resting membrane potential
2. Transmission of action

potential.
3. Threshold stimulus
4. Physiologic anatomy of the muscle.
5. Excitation- contraction coupling.
6. Physiology of skeletal muscles.
7. Physiology of smooth muscles.
8. Physiology of cardiac muscles

Cardiovascular system

1. Introduction
2. Conductive system of the heart
3. The cardiac out put
4. The effect of autonomic
nervous system on the heart
5. Coronary blood flow
6. Blood pressure
7. circulation
8. veins
9. Electrocardiography

Nervous System (sensory)

1. Introduction to the nervous system.
2. Classification of neurons.
3. Integrative function of the nervous system.
4. Central nervous system synapses.
5. Sensory Receptors.
6. Classification of nerve fibers.
7. Somatic senses.
8. Sensory pathway.
9. Tactile sensation.
10. Pain sensation.
11. Thermal sensations.
12. Body temperature regulation.

Special senses

1. Anatomy and Physiology of the Ear.
2. Hearing pathway.
3. The Vestibular System.
4. Vision.

5. Accommodation for near vision.
6. Light and dark adaptation.
7. Vision pathway.
8. Color vision.
9. Taste.
10. Smell.

-Endocrine system:

1. hypothalamus
2. Anterior pituitary gland
3. Posterior pituitary gland
4. Thyroid gland
5. Parathyroid gland
6. Adrenal gland
7. pancreas

- **Reproductive System**:

1. Female reproductive system.
2. Male reproductive system

Nervous System (motor)

1.Motor Functions of the Spinal Cord.
2. Cortical and brain stem control of motor function.
3. Motor cortex.
4. Contributions of the cerebellum and basal ganglia to overall motor Control.

Autonomic Nervous System

1. General organization of the ANS.
2. Basic characteristics of sympathetic and parasympathetic function.
3. Effects of sympathetic and parasympathetic stimulation on specific organs.

High brain function 1. Sleep
2. Memory
3. Limbic system
4. Learning language

Respiratory System

1. Anatomy of the respiratory system.
2. Respiration.
3. Pulmonary volumes and capacities.
4. Pulmonary Diffusion (Gas Exchange in the Lungs)
5. Transport of Oxygen and Carbon dioxide in blood and tissue fluids
6. Oxygen hemoglobin dissociation curve

7. Regulation of respiration
8. Hypoxia
9. Cough and sneezing Reflex
10. Abnormalities of respiratory control
11. Asthma and emphysema

Renal System

1. Functions of the kidneys in homeostasis
2. Factors may affect GFR
3. The tubuloglomerular feedback mechanism
4. Measurement of GFR
5. Transport maximum
6. Control of extracellular fluid osmolarity and sodium concentration
7. Renal mechanisms for controlling urine concentration
8. Diuretics

Gastrointestinal tract system

1.General Principles of Gastrointestinal Function.
2. Mouth
3. Pharynx.
4. Esophagus.
5. Stomach.
6. Pancreas.
7. Liver and biliary system.
8. Small Intestine.
9. Large Intestine (Colon).

Acid base balance

1. Defense against change in(H+)
2. Renal regulation of acid-base balance

Practical labs:

- Introduction
- Red blood cell count
- White blood cell count
- Erythrocyte sedimentation rate
- Bleeding time , Clotting time and Platelet count

- Hemoglobin ,Packed Cell Volume, blood indices
- Blood group and Blood bank
- Blood Pressure
- Examination of sensory nervous system
- Auditory function and audiometer
- Electrocardiography
- Electrocardiography
- Visual acuity and Color vision
- Visual field and Ophthalmoscopy
- Measurement of body temperature and vital signs
- Clinical examination of the chest
- Examination of motor nervous system
- and reflexes
- Lung function test

3.Learning Objective:

Learning Objectives for medical physiology Curriculum

Knowledge

- Full knowledge of communication skills between the student and the professor and with colleagues in the profession .

- Understanding of normal body function, enabling more effective treatment of abnormal or disease states, facilitating the discovery of new diagnostics, treatments and preventative measures.

Skills

Acquiring skills in practical laboratory application and modern scientific methods Through Practical Work application.

Attitudes

Physiology is an experimental scientific discipline and is of central importance in medicine and related health sciences. It provided to the students thorough understanding of normal body function, enabling more effective treatment of abnormal or disease states.

4. Outcomes for Educational Program

- A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the studying medical physiology.

5.Course Overview

- Medical Physiology is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: Five hours per week (first semester)
- Weekly Hours: Five hours per week (second semester)
- Total: 150 hours per academic year

For the practical part:

- Weekly---- 16 hours per week / (two hours for each group)/ (first semester)
-Weekly---- 16 hours per week / (two hours for each group)/ (second semester)

- Total : 90 hours per academic year

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: medical physiology lab

- **Format**:

- For the theoretical part

A systematic explanation of the subject topics, giving relevance to the most important concepts. The student acquires the basic scientific knowledge of the

subject in theory classes, which will be complemented by self-study of the themes of the subject program.

- *For the practical part.*

- Laboratory practices: Practical sessions for the observation and performance of procedures, the practical learning of physiological techniques, and their medical application. Group work and active self-learning promoted.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: TBL Quizzes, practical exams
- **Summative Assessments**: Midterm exams, Final exams.
- **Grading System**

-*Components of Assessment:*

- Mid-Year practical Exam (8% of total grade)
- Mid-Year Theoretical Exam (30% of total grade)
- TBL Quizzes (2% throughout the year)
- Final practical Exam (15% of total grade)
- Final Theoretical Exam (45% of total grade)

-*Detailed Breakdown*

❖ **Theoretical Exams :**

- Midterm Exam: 30% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions
- Final Exam: 45% (covering the entire course content, includes MCQs, short answer questions)

❖ **Practical Exams :**

- Midterm Exam: 8% (Assessed by practical experiments and procedures performed)

- Final Exam : 15%(Assessed by practical experiments and procedures performed)

❖ **TBL Quizzes**

Throughout the year (2%) : Including (MCQ and problem solving questions)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.

Blue print Final exam /First trial

Medical Physiology / Blue print / Final Exam. 2023-2024

Total MCQ = 90

Subject	Remembering Questions	Understanding Questions	Problem solving Questions
Cell Physiology & body fluid	3		
Muscle & Nerve	2		
Blood	3		
Cardiovascular system	2	1	
Nervous System (sensory)	6		
Special senses	4		
Endocrine	2	1	
Reproductive	5		
Nervous System (motor)	4	1	
Autonomic N.S.	2		
High brain function	10		
Respiratory	11	2	
Renal	11	2	
GIT	14		
Acid base balance	4		
Total = 90			

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Cell Physiology & body fluid	5	Dr. Heba khaled	• understand the structures and purposes of basic components of cellular functions • Explain the importance of water in the body. Contrast the composition of the intracellular fluid with that of the extracellular fluid. Explain the importance of protein channels in the movement of solutes.
	Physiology of Muscle & Nerve	4	Dr. Manar Sabagaa	• To provide knowledge and understanding of NERVE MUSCLE PHYSIOLOGY • The nervous system uses both electrical and chemical means to send and receive messages.
	Gastrointestinal tract system	10	Dr. Hana AbdulQader	• 1-Understand the physiology & functions of the digestive system . • 2- The importance & function of each organ in the GIT system . • 3- The importance & function of digestive enzymes and hormones.
	Nervous System (sensory)	9	DR. Alyaa alomary	• Understand the physiology of sensory system • Sensory nerves are responsible for all the sensations in our body- touch , pain, temperature, pressure and vibration
	Blood physiology	**10**	Dr. Hana AbdulQader	Understand the structure & functions of blood in health & disease . 2- Describe the formation of the formed element components of blood. 3- Explain the process of hemostasis
	Nervous System (motor)	**4**	Dr. Hana AbdulQader	1-Understand the physiology of motor system. 2- Organization of the spinal cord for motor functions. 3- Timing of motor activities, Control the intensity of muscle contraction .
	Endocrine system:	**10**	Dr. Saja Nadeem	1- Discuss the chemical composition of hormones and the mechanisms of hormone action.

				2-Summarize the site of production, regulation, and effects of the hormones of the pituitary, thyroid, parathyroid, adrenal, and pineal glands.
	Respiratory System	**10**	Dr. Heba khaled	1-Identify the major components of the respiratory system and describe their functions. 2-Describe pulmonary ventilation and identify the structures involved. 3-Describe external respiration and identify the structures involved.
	Cardiovascular system	**12**	Dr. Shayma abdul hade	1-Identify and describe the interior and exterior parts of the human heart. 2- Describe the path of blood through the cardiac circuits. 3-Describe the size, shape, and location of the heart. 3.understaning ECG.
	Renal System	**9**	Dr. Manar Sabagaa	1- Understand the physiology of Renal system 2-understand the principles of acid-base and renal electrolyte physiology.
	Reproductive System	**4**	Dr. Shayma abdul hade	1- Describe the physiology of the male and female reproductive systems, including their accessory structures. 2- Explain the role of hypothalamic and pituitary hormones in male and female reproductive function
	Acid base balance	**1**	Dr. Manar Sabagaa	1-identify the body's main fluid compartments. Define plasma osmolality 2-To maintain homeostasis, the human body employs many physiological adaptations

7.Instructional objectives of the practical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	**Practical Labs**	16 hours (2 hours / group)	Staff members	• Describe the physiological basis of various tests used to assess the functions of these systems and interpret the results obtained • to provide the students with necessary understanding of physiological principles that will enable them to be good practicing physicians

8.Tables of the Course

جدول التدريس النظري للعام الدراسي 2024-2025		
Chapter title	**Lecture title**	**Lecturer**
Introduction Cell Physiology & body fluid	**1. Introduction.** **2. Definition of Physiology.** **3. Homeostasis.** **4. Structures of the cell and cell membrane.** **5. The transport through the cell membrane.** **6. Passive transport.** **7. Active transport.** **8. The extracellular and intracellular fluids.** **9. Osmosis.**	**د. هبة خالد**
Physiology of Muscle & Nerve	**1. Genesis of resting membrane potential** **2. Transmission of action potential.** **3. Threshold stimulus** **4. Physiologic anatomy of the muscle.** **5. Excitation- contraction coupling.** **6. Physiology of skeletal**	**د. منار صباغة**

	muscles. 7. Physiology of smooth muscles. 8. Physiology of cardiac muscles	
Physiology of Blood	1. General functions of blood. 2. Blood cells. 3. Hemoglobin. 4. White Blood Cells. 5. Monocyte-Macrophage Cell System 6. Platelet function & coagulation. 7. Immunity. 8. Blood Types.	د. هناء عبدالقادر
Cardiovascular system	1.Introduction 2.Conductive system of the heart 3. The cardiac out put 4. The effect of autonomic nervous system on the heart 5. Coronary blood flow 6. Blood pressure 7. circulation 8. veins 9.Electrocardiography	د. شيماء عبدالهادي
Nervous System (sensory)	1. Introduction to the nervous system. 2. Classification of neurons. 3. Integrative function of the nervous system. 4. Central nervous system synapses. 5. Sensory Receptors. 6. Classification of nerve fibers. 7. Somatic senses. 8. Sensory pathway. 9. Tactile sensation. 10. Pain sensation.	د.علياء العمري

	11. Thermal sensations. 12. Body temperature regulation.	
Special senses	1. Anatomy and Physiology of the Ear. 2. Hearing pathway. 3. The Vestibular System. 4. Vision. 5. Accommodation for near vision. 6. Light and dark adaptation. 7. Vision pathway. 8. Color vision. 9. Taste. 10. Smell.	د. علياء العمري
Endocrine	1. hypothalamus 2. Anterior pituitary gland 3. Posterior pituitary gland 4. Thyroid gland 5. Parathyroid gland 6. Adrenal gland 7. pancreas	د. سجى ناظم
Reproductive System	1. Female reproductive system. 2. Male reproductive system	د. شيماء عبدالهادي
Nervous System (motor)	1.Motor Functions of the Spinal Cord. 2. Cortical and brain stem control of motor function. 3. Motor cortex. 4. Contributions of the cerebellum and basal ganglia to overall motor Control.	د. هناء عبدالقادر
Autonomic Nervous System	1. General organization of the ANS. 2. Basic characteristics of sympathetic and	د.منار صباغة

	parasympathetic function. 3. Effects of sympathetic and parasympathetic stimulation on specific organs.	
High brain function	1. Sleep 2. Memory 3. Limbic system 4. Learning language	د. علياء العمري
Respiratory System	1. Anatomy of the respiratory system. 2. Respiration. 3. Pulmonary volumes and capacities. 4. Pulmonary Diffusion (Gas Exchange in the Lungs) 5. Transport of Oxygen and Carbon dioxide in blood and tissue fluids 6. Oxygen hemoglobin dissociation curve 7. Regulation of respiration 8. Hypoxia 9. Cough and sneezing Reflex 10. Abnormalities of respiratory control 11. Asthma and emphysema	د. هبة خالد
Renal System	1. Functions of the kidneys in homeostasis 2. Factors may affect GFR 3. The tubuloglomerular feedback mechanism 4. Measurement of GFR 5. Transport maximum 6. Control of extracellular fluid osmolarity and sodium concentration 7. Renal mechanisms for	د. منار صباعة

	controlling urine concentration 8. Diuretics	
Gastrointestinal tract system	1.General Principles of Gastrointestinal Function. 2. Mouth 3. Pharynx. 4. Esophagus. 5. Stomach. 6. Pancreas. 7. Liver and biliary system. 8. Small Intestine. 9. Large Intestine (Colon).	د. هناء عبدالقادر
Acid base balance	1. Defense against change in(H+) 2. Renal regulation of acid-base balance	د. منار صباغة

جداول العملي

No.	Title Of Experiment	Lecturer
1	Introduction	د. سجى ناظم
2	Red blood cell count	د. سجى ناظم
3	White blood cell count	د. سجى ناظم
4	Erythrocyte sedimentation rate	د. هبة خالد
5	Bleeding time , Clotting time and Platelet count	د. سجى ناظم
6	Hemoglobin ,Packed Cell Volume, blood indices	د. منار صباغة
7	Blood group and Blood bank	د. شيماء عبدالهادي
8	Blood Pressure	د. شيماء عبدالهادي

9	Examination of sensory nervous system	د. منار صباغة
10	مراجعة	
11	امتحان	

No.	Title Of Experiment	Lecturer
1	Auditory function and audiometer	د. هبة خالد
2	Electrocardiography	د. شيماء عبدالهادي
3	Electrocardiography	د. شيماء عبدالهادي
4	Visual acuity and Color vision	د. هناء عبدالقادر
5	Visual field and Ophthalmoscopy	د. منار صباغة
6	Measurement of body temperature and vital signs	د. منار صباغة
7	Clinical examination of the chest	د. هناء عبدالقادر
8	Examination of motor nervous system and reflexes	د. هبة خالد
9	Lung function test	د. هبة خالد
10	مراجعة	
11	امتحان	

9.Learning Resources

Textbooks: " Guyton and Hall Textbook of Medical Physiology (Guyton Physiology)" by John E. Hall PhD (Author), Michael E. Hall MD MSc. (Author).

10.Additional Information

Contact: [Instructor's email and phone number]

Dr. Hana Abdul Qader Khuder

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Location: Medical Physiology Department

Embryology for the second year:

1.General Information:

- **Subject: Embryology.**
- **Code: (209).**
- **Credit hours: 2 units(30 Theory).**
- **Course Language: English.**

2. Syllabus:

1. **First semester:**
    1. **Introduction to Embryology:**
        - Introduction to embryology curriculum.
        - Introductory terminology.
        - Curricular and extra-curricular sources and textbooks.
        - Assessment methods and marking scheme.
    2. **Male Gametogenesis:**
        - Primordial germ cells.
        - Meiosis and mitosis.
        - Spermatogonia.
        - Primary and secondary spermatocytes.
        - Spermatogenesis.
        - Spermiogenesis.
    3. **Female Gametogenesis:**
        - Primordial germ cells.
        - Meiosis and mitosis.
        - Oogenesis.
        - Primary oocyte.
        - Secondary oocyte.
        - Graffian follicle.
        - Ovulation.
    4. **Menstrual cycle and uterine receptivity:**
        - Hypothalamus pituitary ovarian axis.
        - Initiation of puberty.
        - Uterine cycle changes.
        - Menstrual cycle phases.
        - Mechanisms of menstrual bleeding.
    5. **Fertilization:**
        - Fertilization events.
        - Maturation of secondary oocyte.
        - Oocyte transport.

- Contact and fusion of gametes.
- Cleavage.
- Morula.
- Blastocyst.
- Implantation.
- Early placentation.

6. **Bilaminar germ disc:**
    - Trophoblast.
    - Embryoblast.
    - Extraembryonic membranes.
    - Formation of the amniotic cavity and yolk sac.
7. **Trilaminar germ disc:**
    - Gastrulation.
    - Primitive streak.
    - Notochord.
    - Neurolation.
    - Vasculogenesis.
8. **Embryonic period:**
    - Ectodermal differentiation.
    - Mesodermal differentiation.
    - Embryonic folding.
    - Endodermal differentiation.
9. **Fetal period:**
    - Fetal changes from third to ninth months.
10. **Placenta:**
    - Formation and structure of the placenta.
    - Functions of the placenta.
    - Umbilical cord.
    - Amnion.
11. **Fetal membranes:**
    - Fetal membranes functions and relations.

2. **Second Semester:**
    1. **Introduction to Special System Embryology:**
        - Recap on first term.
        - Introduction to system embryology.
        - Organogenesis.
        - Linkage with clinical correlation.
    2. **Respiratory system:**
        - development of the respiratory system.
    3. **Digestive system:**
        - Development of the digestive system.
    4. **Urogenital system:**
        - Development of the urinary and genital systems.
    5. **Head and neck:**
        - Development of the head and neck.
        - Pharyngeal apparatus and its derivatives.
    6. **Cardiovascular system:**
        - Development of the cardiovascular system.
        - Formation of the heart chambers.
        - Vasculogenesis.
        - Hematopoiesis.
    7. **Musculoskeletal system:**
        - Development of the musculoskeletal system.
    8. **Nervous system:**
        - Development of the nervous system.
    9. **Integumentary system (Skin):**
        - Development of the skin and its appendages.
    10. **Applications of Embryology in ART:**
        - Applications of embryology in infertility management.
        - ART history and tree.
        - Fertility preservation.
        - Therapeutic potential of assisted reproduction technologies.
    11. **Genetic abnormalities:**
        - Common genetic anomalies.
    12. **Congenital malformations:**
        - Common congenital malformations.
    13. **Multiple Pregnancy:**
        - Definition and different types of multiple pregnancies.
        - Clinical consequences.

3. Learning Objectives:

Knowledge

- **Reproductive embryology**: Students will be able to describe the complex interaction between the endocrine and the genital systems towards achieving the essential processes of gametogenesis, fertilization, implantation, and fetomaternal dialogue at the molecular and histological level
- **Embryonic development**: Students will understand and accurately describe the stages of embryonic and systemic development of the human embryo. Identify the key extra-embryonic organs and their roles towards healthy pregnancy and birth.
- **Clinical correlation**: Students will be able to outline the most common clinical issues stemming from endocrine, genital, congenital development disturbances and link it to their future studies and clinical practice.

Skills

- **Critical thinking**: Students will critically analyze complex issues of clinical embryology and reproductive biology. Understand the weight and importance of scientific evidence.
- **Teamwork:** students will develop skills of scientific analysis and criticism through group discussion sessions and presentation, which qualifies them to apply the basics of self-learning through various methodological and enrichment sources.
- **Ethical issues and controversies:** Students will be introduced to the basic ethical codes in reproductive medicine and clinical embryology. Moreover, students will be able to assess multifaceted clinical controversies and propose evidence-based solutions.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with infertility, congenital anomaly patients and their families.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families via reflecting on the core ethical codes and their knowledge of controversial issues in embryology and ART.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: students will have a thorough knowledge of the basics of gamete formation, fertilization, and embryonic development, different stages of fetal growth, congenital malformations, and introduction to assisted reproduction.
- **Curricular integration**: students will be offered an integrated roadmap via the inputs of the clinical embryology curriculum that qualifies them to comprehend subsequent inputs from advanced stages curriculum such as gynecology, obstetrics, and surgical branches.
- **Evidence-Based Practice**: students will be able to apply evidence-based guidelines and best practices in reproductive medicine and clinical embryology.

Skills

- **Scientific thinking**: students will be proficient in analyzing complex clinical issues and accurately trace them to their root causes at the cellular and molecular level.
- **Clinical thinking skills**: students will collectively become introduced to clinical teamwork; understand the integrative nature of basic and clinical sciences. In addition, to understand the flow of diagnosis processes and development of management plans.

Attitudes

- **Ethical Practice**: students will become familiar with the ethical principles in in reproductive medicine, clinical embryology, and assisted reproduction.
- **Person-Centered Care**: students will develop early level capacities on person-centered care and patient inclusion in clinical decision-making.
- **Continuous Improvement**: students will develop professional habit of self-directed learning and search for scientific evidence.

5. Course Overview

- **The course composition:**
- The course is delivered via theoretical modality on two semesters, teaching includes didactic lectures, discussion and team-based learning exercises.Theoretical Part>

- **Duration**:

The theoretical teaching is extended on both the first and second academic year semesters, divided as following:

- Weekly Hours: one hour per week (first semester).
- Weekly Hours: one hour per week (second semester).
- Total: 30 hours per academic year
- One the other hand, the students are additionally involved in team-based learning exercises encompassing clinically oriented problem solving activities, some formative and several summative quizzes that are followed by multilateral discussions on the topics of note.

- **Location**:

The theoretical teaching and exercises are both conducted at each class lecture hall.

- **Format**:

The theoretical part delivery modalities:

- **Tutor-Centered:** via didactic lectures.
- **Student-Centered:** via participation in topic related discussions.
- **Interactive Teaching:** via classroom and official online groups.
- **Self-directed learning:** via the use of the official subject textbook and supplementary videos and animations provided by the subject teacher.
- **Clinical case-based Learning:** via team-based learning exercises.

- **Assessment Methods**

Types of Assessment:

- **Formative Assessments**: Quizzes and in-lecture assessment activities.

- **Summative Assessments**: TBL exams (IRAT, TRAT, and Application Exercise), midterm exam, final exam.
- **Continuous Feedback**: Provided throughout the course.

Components of Assessment:

- Written Exams (100% of total grade).

Detailed Breakdown

- **Written Exams (100%)**:
  - **Midterm Exam (30%):** covers topics from the first half of the course, includes single-choice questions (SCQs), short answer questions (SAQs), and case-based questions).
  - **Team-Based Learning activities (10%):** where the each activity is conducted every other week throughout the course period. Each activity consist of and online test i.e. **IRAT** (Individual Readiness Assurance Test) consist of 5 SCQs, followed by in-person activities of **TRAT** (Team Readiness Assurance Test) and **AE** (Application Exercise) where each student choose to work with his/her respective subgroup to discuss and brainstorm answers and solutions to TRAT questions and AE clinical case-oriented problem solving questions. Each TBL activity is allocated 15 marks (5 per each component). Eight TBL activities are conducted year-round (four per semester) and their cumulative mark is then rationalized to 10%.
  - **Final Exam (60%):** A comprehensive exam covering the entire course content, includes SCQs, SAQs, and case-based questions)

Pass/Fail Criteria

- **Pass Mark**: **50%**
- Students must achieve a combined score of at least **50%** from all components to pass the course.
- **Continuous Assessment:** is achieved via assignments, quizzes, presentations, peer evaluations/discussions.

Blueprint for the final exam

Total 80 MCQ

Subject	Remembering questions	Understanding questions	Problem solving	Total per subject
Male and Female gametogenesis	1	1	2	4
Menstrual cycle & uterine receptivity	1	2	0	3
Fertilization	1	1	0	2
Bilaminar germ disc	1	1	0	2
Trilaminar germ disc	1	1	0	2
Embryonic and fetal period	1	0	0	1
Placenta and fetal membranes	1	1	0	2
Respiratory system	3	3	1	7
Digestive system	4	2	3	9
Cardiovascular system	3	3	2	8
Head and neck	2	3	2	7
Urogenital systems	4	5	0	9
Nervous system	3	3	0	6
Integumentary system	1	2	0	3
Congenital & genetic abnormalities	2	2	3	7
Applications of embryology in ART	2	1	2	5
Musculoskeletal systems	1	1	0	2
Multiple pregnancy	1	0	0	1
Total per category	33	32	15	80

6. Instructional Objectives of the course lectures:

No.	Topic / Lecture	Instructional Objectives	Hours	Lecturer
General Embryology			**12**	
1	**Introduction to Embryology**	**1.** Understand the basic embryology terminology. **2.** Understand the main milestones of embryology. **3.** Understand the structure of the curriculum and marking scheme/methodology.	1	Assistant Lecturer Dr. Mohammed Luqman
2	**Male Gametogenesis**	**1.** Understand the biological processes of mitosis, meiosis. **2.** Enumerate the differences between mitosis and meiosis. **3.** Draw a simplified diagram of spermatogenesis. **4.** Draw a simplified diagram of Spermiogenesis. **5.** Outline the difference between spermatogenesis and Spermiogenesis. **6.** Draw and annotate the basic sperm ultrastructure. **7.** Explain the purpose of each sperm ultrastructure towards its functionality. **8.** Enumerate the stages of sperm cell passage through the genital tract from formation to ejaculation.	2	Assistant Lecturer Dr. Mohammed Luqman
3	**Female Gametogenesis**	**1.** Understand the essential differences between female and male gametogenesis. **2.** Understand the limitations, advantages and disadvantages of female gametogenesis. **3.** Describe the process of Graffian follicle formation and oocyte maturation. **4.** Understand the hormonal effects on ovarian functionality and oocyte maturation/ovulation. **5.** Describe the relationship between the oocyte, polar bodies, and cumulus cells.	1	Assistant Lecturer Dr. Mohammed Luqman
4	**Menstrual**	**1.** Briefly outline the HPO hormonal axis	1	Assistant

	cycle and uterine receptivity	and its functions. **2.** Date and describe the main events of female menstrual cycle. **3.** Differentiate among the different phases of menstrual cycle at the ovaries and uterus. **4.** Understand the mechanism of ovulation. **5.** Understand the importance of sufficient uterine receptivity.		Lecturer Dr. Mohammed Luqman
5	**Fertilization**	**1.** Understand the role of each gamete in the formation of the zygote. **2.** List the different stages of initial zygote transformation and development. **3.** Outline the main milestones and periods of embryonic growth and cleavage. **4.** Describe the morula. **5.** Describe the blastocyst and embryonic hatching. **6.** Understand the basic mechanisms of implantation and early placentation.	1	Assistant Lecturer Dr. Mohammed Luqman
6	**Bilaminar germ disc**	**1.** Understand the basic mechanisms of bilaminar germ disc formation and development. **2.** Enumerate the different segments/parts of the bilaminar disc. **3.** Describe the epiblast and the hypoblast definition and migration. **4.** Describe the amniotic, yolk, and gestational sacs formation. **5.** Utilize the available animations and diagrams to annotate the segments of the bilaminar germ disc.	1	Assistant Lecturer Dr. Mohammed Luqman
7	**Trilaminar germ disc**	**1.** Understand the transformation towards Trilaminar germ disc. **2.** Describe the three layers of ecto, meso, and endoderm. **3.** Outline the essential functionality of each layer in relation to embryo growth and further implantation.	1	Assistant Lecturer Dr. Mohammed Luqman
8	**Embryonic period**	**1.** Accurately date the embryonic period from start to end. **2.** Describe the embryonic development during this period. **3.** List the main events towards attaining	1	Assistant Lecturer Dr. Mohammed Luqman

		most of the human characteristics. **4.** Relate the primitive organelles/buds to their future end organs.		
9	**Fetal period**	**1.** Define the timetable of the fetal period. **2.** Understand the subtle and visible changes to the fetus through each month. **3.** List the fetal development milestones at each month. **4.** Describe the gross overview of fetal development and organ maturation.	1	Assistant Lecturer Dr. Mohammed Luqman
10	**Placenta**	**1.** Describe the placentation process. **2.** Describe the formation and development of amniotic and yolk sacs. **3.** Outline the function and relations of the umbilical cord.	1	Assistant Lecturer Dr. Mohammed Luqman
11	**Fetal membranes**	**1.** List the different fetal membranes. **2.** Briefly describe the function of fetal membranes. **3.** Identify the common pathophysiology related to the fetal membranes.	1	Assistant Lecturer Dr. Mohammed Luqman
Special Embryology			**18**	
1	**Introduction to Special System Embryology**	**1.** Recap and reflect on the first term knowledge. **2.** Understand the upcoming lectures' structure. **3.** Relate the first term knowledge to further special organ formation and development.	1	Assistant Lecturer Dr. Mohammed Luqman
2	**Respiratory system**	**1.** Describe the original structures involved in the system formation. **2.** List in order, the transformative events towards system maturation. **3.** Describe the origin and formation of the lower respiratory system components. **4.** Describe the formation of the larynx and bronchial tree. **5.** Describe the lung bud formation and maturation stages. **6.** Outline the common clinical correlations related to lower respiratory system malformations.	2	Assistant Lecturer Dr. Mohammed Luqman

3	**Digestive system**	**1.** Describe the original structures involved in the system formation. **2.** List in order, the transformative events towards system maturation. **3.** Describe the function of each organ within the system under the fetal period settings.	2	Assistant Lecturer Dr. Mohammed Luqman
4	**Urogenital system**	**1.** Describe the formation of the pronephros, mesonephros, and metanephros derivatives. **2.** Describe the formation of urinary bladder, female and male urethra. **3.** Outline the clinical correlations of the urinary system malformations. **4.** Define the indifferent embryo. **5.** Describe the pathways of female and male phenotypic determination. **6.** Describe the formation of female gonads and ductal system. **7.** Describe the formation of male gonads and ductal system. **8.** Outline the clinical correlations of the genital system malformations.	2	Assistant Lecturer Dr. Mohammed Luqman
5	**Head and neck**	**1.** Describe the original structures involved in the system formation. **2.** Define the pharyngeal apparatus. **3.** Describe the components and fate of the pharyngeal arches. **4.** Describe the formation of the thyroid, and mouth. **5.** Describe the formation of the face and nasal cavities. **6.** Outline the clinical correlations of the head and neck malformations.	2	Assistant Lecturer Dr. Mohammed Luqman
6	**Cardiovascular system**	**1.** Describe the original structures involved in the system formation. **2.** List in order, the transformative events towards system maturation. **3.** Describe the original structures involved in the early cardiovascular system (CVS) formation. **4.** Define angiogenesis and vasculogenesis. **5.** Describe fetal hematopoiesis. **6.** Describe heart chambers formation.	2	Assistant Lecturer Dr. Mohammed Luqman

		7. Describe most common cardiac malformations. **8.** Describe the formation of the heart conduction system. **9.** Outline the coronary and systemic arterial development. **10.** Outline the systemic venous development.		
7	**Musculoskeletal system**	**1.** Describe the original structures involved in the system formation. **2.** List in order, the transformative events towards system maturation. **3.** Describe the function of each organ within the system under the fetal period settings.	1	Assistant Lecturer Dr. Mohammed Luqman
8	**Nervous system**	**1.** Describe the original structures involved in the system formation. **2.** Describe the origin and formation of the central and peripheral nervous system. **3.** Describe the formation of the primary brain vesicles and their fate. **4.** Understand the formation of placodes and outline their fate. **5.** Outline the development of the spinal cord. **6.** Outline the common clinical correlations related to nervous system development (neural tube and neural crest maldevelopment).	1	Assistant Lecturer Dr. Mohammed Luqman
9	**Integumentary system (Skin)**	**1.** Describe the original structures involved in the system formation. **2.** Define the Integumentary System components. **3.** Describe the formation of the skin layers. **4.** Describe the formation of the hair and nails. **5.** Describe the formation of the sweat and sebaceous glands. **6.** Outline the clinical correlations of the integumentary system developmental abnormalities.	1	Assistant Lecturer Dr. Mohammed Luqman
10	**Applications of Embryology in ART**	**1.** Understand the different ART approaches. **2.** List the steps of an assisted conception	1	Assistant Lecturer Dr. Mohammed

		cycle. **3.** Define In-Vitro Fertilization (IVF). **4.** Define Intra-Cytoplasmic Sperm Injection (ICSI). **5.** Define Intra-Uterine Insemination (IUI). **6.** Understand the basics of human tissue and embryology culture conditions. **7.** Define subfertility, infertility, and sterility. **8.** Outline the indications of assisted reproduction technologies (ART). **9.** Describe the different treatment modalities of ART. **10.** Describe the fertility preservation applications of ART. **11.** Outline the roles and responsibilities of different staff involved in and ART/fertility center.		Luqman
11	**Genetic Abnormalities**	**1.** Differentiate between multitudes of genetic aberrations based on their originating mechanisms. **2.** Link the common genetic anomalies to their clinical syndromes. **3.** Outline the available pre-implantation genetic testing (PGT) or antenatal screening methods.	1	Assistant Lecturer Dr. Mohammed Luqman
12	**Congenital malformations**	**1.** Understand the embryological and fetal basis of congenital anomalies. **2.** Describe the common congenital malformations and link them to their clinical spectrum. **3.** Enumerate list of therapeutic options for each anomaly.	1	Assistant Lecturer Dr. Mohammed Luqman
13	**Multiple Pregnancy**	**1.** Define what a multiple pregnancy is. **2.** Outline the different types of multiple pregnancies. **3.** Correlate to the clinical consequences of multiple pregnancy on maternal and fetal well-being.	1	Assistant Lecturer Dr. Mohammed Luqman

7. Instructional objectives of the clinical sessions:

No clinical sessions are required for the embryology subject at this level.

8. Tables of the Course:

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثانية / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

اليوم / الساعة	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠
الأحد	الجزء النظري من الجانب العملي كيمياء A	كيمياء A		كيمياء B		الجزء النظري من الجانب العملي الكيمياء B
	الجزء النظري من الجانب العملي فسلجة B	فسلجة B		فسلجة A		الجزء النظري من الجانب العملي الفسلجة A
الاثنين	تشريح A		فسلجة A		مناقشة TBL للمجموعتين A و B	
	انسجة B		تشريح B			
الثلاثاء	انسجة A		كيمياء A	اجنة A	الجزء النظري من الجانب العملي انسجةA	الجزء النظري من الجانب العملي تشريح A
	اجنة B	كيمياء B	فسلجة B		الجزء النظري من الجانب العملي تشريحB	الجزء النظري من الجانب العملي انسجة B
الأربعاء	تشريح عملي ١ كيمياء عملي ٢ انسجة عملي ٣ فسلجة عملي ٤	تشريح عملي ٢ كيمياء عملي ٣ انسجة عملي ٤ فسلجة عملي ١	تشريح عملي ٣ كيمياء عملي ٤ انسجة عملي ١ فسلجة عملي ٢	تشريح عملي ٤ كيمياء عملي ١ انسجة عملي ٢ فسلجة عملي ٣		
الخميس	تشريح عملي ٥ كيمياء عملي ٦ انسجة عملي ٧ فسلجة عملي ٨	تشريح عملي ٦ كيمياء عملي ٧ انسجة عملي ٨ فسلجة عملي ٥	تشريح عملي ٧ كيمياء عملي ٨ انسجة عملي ٥ فسلجة عملي ٦	تشريح عملي ٨ كيمياء عملي ٥ انسجة عملي ٦ فسلجة عملي ٧		

ملاحظة : مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

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9. Learning Resources

The official textbook of the embryology subject is **(Langman Medical Embryology).** Moreover, the teacher encourages the students to utilize the below important resources:

1. Yogesh Sontakke - Textbook of Human Embryology (2018).
2. BRS (Board Review Series) - Embryology 6th Edition.
3. The Developing Human, Clinically Oriented Embryology 10th Edition.
4. Online videos and animations shared alongside each lecture on Google classroom**.**

10. Additional Information

1. Contact: mohammed.jirjees@uoninevah.edu.iq
2. Course Instructor:
   Assistant Lecturer, Dr. Mohammed Luqman Jirjees.
   M.B.Ch.B – MSc in Human Clinical Embryology and Assisted Conception
3. Location: Anatomy Department / Building of Basic Sciences.

Anatomy for second year

1. General Information:

- **Subject**: Anatomy
- **Code**: NMCO 2 10
- **Credit hours**: 10 units(60 hours theory and 180 hours practical).
- **Course Language**: English.

2. Syllabus:

- **Head and neck**

1- Skull
2- Face and scalp
3- Triangles of neck
4- Thyroid and parathyroid glands
5- Blood vessels and nerves of head and neck
6- Larynx
7- Mouth and Pharynx
8- Orbit
9- Nose, paranasal sinuses, and ear
10- Salivary glands
11- Lymph drainage of head and neck

- **Neuroanatomy**

1- Meninges and dural venous sinuses
2- Cerebrum
3- Brain stem
4- Cerebellum
5- Ventricular system
6- Basal ganglia
7- Blood supply of brain
8- Spinal cord
9- Autonomic nervous system

- **abdomen**

1- abdominal wall and inguinal canal
2- peritoneum
3- stomach and intestine
4- spleen
5- pancreas

6- liver and gall bladder
7- kidney , adrenal gland and ureter
8- blood vessels and autonomic nerves
9- diaphragm

- **pelvis**

1- perineum
2- bladder and urethra
3- internal genital organs of male
4- internal genital organs of female
5- vessels and nerves of pelvis
6- pelvic diaphragm

3. Learning objective

Knowledge

Students will be able to describe normal anatomical structures of head, neck, central nervous system, abdomen and pelvis, in addition student should be able to know few basic points about applied anatomy related to these regions.

Skill

Students will be able to use plastinated human cadavers, plastic models and anatomage table to know the normal anatomical structures of these regions.

4. Outcomes for Educational program

Knowledge

Active Learning Techniques: Utilize active learning techniques such as summarizing key points, creating flashcards, or teaching the material to someone else. This helps reinforce understanding and retention

Skill

Visual Aids and Diagrams: Use diagrams, charts, and models. This can aid in understanding and memorization

Practice with Quizzes and Questions: Test your understanding regularly with quizzes and practice questions. This helps identify areas of weakness that need further review.

5. Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: 2
  - Total: 60 hours per academic year

  For the practical part:

  - Weekly Hours: 6
  - Total: 180 hours per academic year

- **location**:

  -For the theoretical part: Lecture Hall

  -For the practical part: anatomy laboratory

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSPEs
- **Continuous Feedback**: Provided throughout the course

Component of assessment and detailed breakdown:

Midyear examination

10 marks for practical
20 marks for theory
10 marks for quizzes and OSPEs

Final year examination

15 marks for practical
45 marks for theory

Blue print / Final Exam/ First trial

blue print for final Anatmy exam 2024

class .....2..... College/ D

Unit/ Course/ Subject: .....

	Lecturs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for75 questions exams(W*75)	No. of test items on each SLO
1	scalp and face	L	1	1	1	0.0238095	1.785714286	2
2	neck	L	1	1	1	0.0238095	1.785714286	2
3	thyroid gland	L	1	1	1	0.0238095	1.785714286	2
4	subclavian vessels	L	1	1	1	0.0238095	1.785714286	3
5	larunx	L	1	1	1	0.0238095	1.785714286	
6	pharynx	L	1	1	1	0.0238095	1.785714286	2
7	orbit	L	1	1	1	0.0238095	1.785714286	2
8	infratemporal fossa	L	1	1	1	0.0238095	1.785714286	2
9	ear	L	1	1	1	0.0238095	1.785714286	2
10	nose and maxillary nerve	L	1	2	2	0.047619	3.571428571	4
11	neuroanatomy	L	2	4	8	0.1904762	14.28571429	14
	pelvis	L	2	4	8	0.1904762	14.28571429	14
12	abdomin	L	3	5	15	0.3571429	26.78571429	26
	total		17	24	42	1	75	75

6. Instructional objective of the lectures

Head and neck

Semester 1

Lecture no.	Topics Covered	Teaching Faculty	No. of Lectures	Instructional objective
1	The Scalp	Dr. Eman Ghanim	1	Study of the scalp anatomy, layers, blood supply, and innervation.
2	The Face	Dr. Eman Ghanim	1	examination of facial anatomy, including muscles, nerves, and blood vessels.

3	Triangles of the Neck	Dr. Eman Ghanim	1	Discuss the anatomical triangles of the neck, their boundaries, and contents.
4	Subclavian Artery	Dr. Eman Ghanim	1	Discuss the origin, course, branches, and clinical relevance of the subclavian artery.
5	Common Carotid Artery and External Carotid Artery	Dr. Eman Ghanim	1	discussion of the common carotid artery and its branches, focusing on the external carotid artery.
6	Internal Carotid Artery and Internal Jugular Vein	Dr. Eman Ghanim	1	discussion of the internal carotid artery and internal jugular vein anatomy, course, and clinical significance.
7	Vagus Nerve	Dr. Eman Ghanim	1	describe the vagus nerve anatomy, branches, functions, and clinical correlations.
8	Thyroid Gland	Dr. Waleed Hazim	1	study of the thyroid gland anatomy, structure, function, and clinical disorders.
9	Lymphatic Drainage of Head and Neck	Dr. Waleed Hazim	1	lymphatic drainage system of the head and neck regions, including lymph nodes and pathways.
10	Parotid Gland and Muscles of Mastication	Dr. Waleed Hazim	1	study of the parotid gland anatomy, salivary secretion, and muscles involved in mastication.
11	Maxillary Artery and Submandibular Region	Dr. Waleed Hazim	1	discussion of the maxillary artery, its branches, and the submandibular region anatomy.
12	The Orbit	Dr. Waleed Hazim	1	study of the orbit anatomy, including bones, muscles, nerves, and blood vessels.
13	The Ear	Dr. Waleed Hazim	1	study of the ear anatomy, including external, middle, and inner ear structures.

14	The Nose	Dr. Waleed Hazim	1	Analysis of nasal anatomy, including bones, cartilages, mucosa, and sinuses.
15	The Mouth and Tongue	Dr. Waleed Hazim	1	study of oral cavity anatomy, including teeth, tongue, salivary glands, and oral mucosa.
16	Nasopharynx	Dr. Waleed Hazim	1	Discussion of the nasopharynx anatomy, including its boundaries, structures, and clinical significance.
17	Oropharynx and Laryngopharynx	Dr. Waleed Hazim	1	Exploration of the oropharynx and laryngopharynx anatomy, including structures and functions.
18	The Larynx	Dr. Waleed Hazim	1	study of the larynx anatomy, including cartilages, ligaments, vocal cords, and functions.

Neuroanatomy

Semester 1:

no.	Topics Covered	Faculty member	No. of Lectures	Instructional objective
1	Meninges	Dr. Zahraa Tabbo	1	study of the meninges, their layers, structure, and functions in protecting the brain and spinal cord.
2	Venous Sinuses	Dr. Zahraa Tabbo	1	discussion of the venous sinuses within the brain, including their anatomy and clinical relevance.
3	Topography of Brain, Medulla Oblongata and Pons	Dr. Zahraa Tabbo	1	discussion of the anatomical topography of the brainstem, including the medulla oblongata and pons.
4	Cerebellum	Dr. Zahraa Tabbo	1	study of the cerebellum anatomy, structure, functions, and its role in motor coordination.
5	Fourth Ventricle	Dr. Zahraa Tabbo	1	Anatomy of the fourth ventricle anatomy, including its boundaries, structures, and

				clinical significance.
6	Midbrain	Dr. Zahraa Tabbo	1	study of the midbrain anatomy, including the tectum, tegmentum, and functions in sensory processing.
7	Cerebrum, Diencephalon	Dr. Zahraa Tabbo	1	study of the cerebrum and diencephalon anatomy, including the thalamus, hypothalamus, and functions.
8	Third Ventricle	Dr. Zahraa Tabbo	1	study of the third ventricle anatomy, including its boundaries, structures, and clinical significance.
9	Cerebral Hemispheres	Dr. Zahraa Tabbo	1	Description of the cerebral hemispheres anatomy, lobes, gyri, sulci, and functions in cognitive processing.
10	Lateral Ventricle	Dr. Zahraa Tabbo	1	study of the lateral ventricles anatomy, including their structures, choroid plexus, and CSF circulation.
11	Basal Ganglia	Dr. Zahraa Tabbo	1	discuss of the basal ganglia anatomy, including the caudate nucleus, putamen, globus pallidus, and functions.
12	Functional Localization Areas	Dr. Zahraa Tabbo	1	study of functional localization areas in the brain, including motor, sensory, and association areas.
13	White Matter of the Brain	Dr. Zahraa Tabbo	1	dicussion of the white matter anatomy, including tracts, pathways, and their functions in neural communication.
14	Spinal Cord	Dr. Zahraa Tabbo	1	study of the spinal cord anatomy, including segments, tracts, and functions in sensory and motor processing.

15	Tracts of the Spinal Cord	Dr. Zahraa Tabbo	1	Discussion of the spinal cord tracts, including ascending and descending pathways and their clinical significance.
16	Circulation of CSF	Dr. Zahraa Tabbo	1	study of cerebrospinal fluid circulation, including production, flow, absorption, and clinical relevance.
17	Blood Supply of Brain	Dr. Zahraa Tabbo	1	study of the blood supply to the brain, including the circle of Willis, arteries, and clinical implications.
18	Autonomic Nervous System	Dr. Zahraa Tabbo	1	Description of the autonomic nervous system, including sympathetic and parasympathetic divisions and functions.

Abdomen

Semester 2

no.	Topics Covered	Faculty member	No. of Lectures	Instructional objective
1	The Abdominal Wall Part 1	Dr. Saif Mudafer	1	study of the surface anatomy, superficial fascia, and muscles comprising the anterolateral abdominal wall.
2	The Abdominal Wall Part 2	Dr. Saif Mudafer	1	Discussion of the formation of the rectus sheath, muscles of the posterior abdominal wall, and the transversalis fascia.
3	The Abdominal Wall Part 3	Dr. Saif Mudafer	1	study of the nerve supply, blood supply, and lymphatics of the abdominal wall, including the anatomy of the inguinal canal and hernia.
4	Peritoneum	Dr. Saif Mudafer	1	study of the peritoneum, including its structure, function,

				and clinical significance in abdominal anatomy.
5	The Stomach	Dr. Saif Mudafer	1	anatomy of the stomach, including its structure, function, and blood supply.
6	The Spleen	Dr. Saif Mudafer	1	study of the spleen anatomy, including its structure, function, blood supply, and clinical significance.
7	Duodenum	Dr. Saif Mudafer	1	Description of the duodenum anatomy, including its segments, blood supply, innervation, and clinical relevance.
8	The Pancreas	Dr. Saif Mudafer	1	study of the pancreas anatomy, including its structure, function, duct system, and endocrine and exocrine functions.
9	The Jejunoileum	Dr. Saif Mudafer	1	discussion of the anatomy of the jejunum and ileum, including their structure, function, and blood supply.
10	The Large Intestine	Dr. Saif Mudafer	1	study of the anatomy of the large intestine, including its segments, functions, and clinical significance.
11	Liver and Gall Bladder	Dr. Saif Mudafer	1	Descriptin of the anatomy of the liver and gall bladder, including their structure, function, and bile production.
12	Portal Vein and Portal Circulation, Lymphatic Drainage of Abdomen	Dr. Saif Mudafer	1	Study of the portal vein, portal circulation, and lymphatic drainage of the abdomen, including their clinical significance.
13	Autonomic Innervation of Abdomen and Lumbar Plexus	Dr. Saif Mudafer	1	study of the autonomic innervation of the abdomen, including the lumbar plexus and its branches.

14	Abdominal Aorta and Inferior Vena Cava	Dr. Saif Mudafer	1	Discussion of the abdominal aorta and inferior vena cava anatomy, including their branches, tributaries, and clinical significance.
15	The Kidneys and The Suprarenal Glands	Dr. Saif Mudafer	1	study of the anatomy and histology of the kidneys and suprarenal glands, including their structure, function, and blood supply.
16	The Diaphragm	Dr. Saif Mudafer	1	Discussion of the anatomy and function of the diaphragm, including its attachments, innervation, and role in respiration.

Pelvis

Semester 2

No.	Topics Covered	Faculty member	No. of lectures	Instructional objective
1	Bony Pelvis and Peritoneum	Dr. Saif Mudafer	1	Comprehensive study of the bony pelvis structure and peritoneal attachments, including their clinical significance.
2	Perineum and Superficial and Deep Perineal Spaces	Dr. Saif Mudafer	1	Detailed examination of the perineal region anatomy, including the superficial and deep perineal spaces.
3	Male Urethra	Dr. Saif Mudafer	1	Thorough analysis of the male urethra anatomy, including its structure, function, and clinical relevance.
4	Urinary Bladder	Dr. Saif Mudafer	1	Comprehensive study of the urinary bladder anatomy, including its structure, function, and clinical significance.
5	Male Genital Organs	Dr. Saif Mudafer	1	Detailed examination of the male genital organs anatomy, including the testes, epididymis, and accessory glands.

6	Female Genital Organs	Dr. Saif Mudafer	1	Comprehensive study of the female genital organs anatomy, including the ovaries, uterus, fallopian tubes, and vagina.
7	Pelvic Diaphragm	Dr. Saif Mudafer	1	Detailed examination of the pelvic diaphragm anatomy, including the levator ani and coccygeus muscles.
8	Blood Supply and Nerve Supply of the Pelvis	Dr. Saif Mudafer	1	Thorough analysis of the blood supply and nerve supply of the pelvis, including arterial and nervous plexuses.

7. Instructional objectives of the Practical Sessions:

No.	Session Title	No. of Sessions	Faculty Member	Instructional Objective
1	The Scalp	1	Dr. Eman Ghanim	- Understand the layers and structures of the scalp
2	The Face	1	Dr. Eman Ghanim	- Identify the important anatomical landmarks and structures of the face
3	Triangles of the Neck	1	Dr. Eman Ghanim	- Describe the boundaries and contents of the various triangles of the neck
4	Subclavian Artery	1	Dr. Eman Ghanim	- Learn the origin, course, and branches of the subclavian artery
5	Common Carotid Artery and External Carotid Artery	1	Dr. Eman Ghanim	- Understand the anatomy and branches of the common carotid artery and external carotid artery
6	Internal Carotid Artery and Internal Jugular Vein	1	Dr. Eman Ghanim	- Describe the anatomy and relationships of the internal carotid artery and internal jugular vein
7	Vagus Nerve	1	Dr. Eman Ghanim	- Identify the course, branches, and functions of the vagus nerve
8	Thyroid Gland	1	Dr. Waleed Hazim	- Describe the location, structure, and blood supply of the thyroid gland
9	Lymphatic Drainage of Head and Neck	1	Dr. Waleed	- Understand the pathways and drainage areas of the lymphatic

			Hazim	system in the head and neck
10	Parotid Gland and Muscles of Mastication	1	Dr. Waleed Hazim	- Learn the anatomy and function of the parotid gland and muscles involved in mastication
11	Maxillary Artery and Submandibular Region	1	Dr. Waleed Hazim	- Describe the course, branches, and relations of the maxillary artery and structures in the submandibular region
12	The Orbit	1	Dr. Waleed Hazim	- Identify the structures and contents of the orbit, including nerves and blood vessels
13	The Ear	1	Dr. Waleed Hazim	- Understand the anatomy of the external, middle, and inner ear, including structures involved in hearing and balance
14	The Nose	1	Dr. Waleed Hazim	- Describe the nasal cavity, nasal septum, and paranasal sinuses, including their functions and anatomical relations
15	The Mouth and Tongue	1	Dr. Waleed Hazim	- Learn the anatomy of the oral cavity, including the tongue, teeth, and salivary glands
16	Nasopharynx	1	Dr. Waleed Hazim	- Identify the structures and functions of the nasopharynx, including its role in respiration and swallowing
17	Oropharynx and Laryngopharynx	1	Dr. Waleed Hazim	- Describe the anatomy and functions of the oropharynx and laryngopharynx, including their role in digestion and speech
18	The Larynx	1	Dr. Waleed Hazim	- Understand the anatomy of the larynx, including its cartilages, ligaments, and vocal folds
19	Meninges	1	Dr. Zahraa Tabbo	- Describe the layers and functions of the meninges, including the dura mater, arachnoid mater, and pia mater
20	Venous Sinuses	1	Dr. Zahraa Tabbo	- Learn the location and functions of the venous sinuses in the brain, including drainage pathways

21	Topography of Brain, Medulla Oblongata and Pons	1	Dr. Zahraa Tabbo	- Identify the major anatomical landmarks and structures of the brainstem, including their functions
22	Cerebellum	1	Dr. Zahraa Tabbo	- Understand the anatomy and functions of the cerebellum, including its role in coordination and motor control
23	Fourth Ventricle	1	Dr. Zahraa Tabbo	- Describe the anatomy and functions of the fourth ventricle in the brainstem
24	Midbrain	1	Dr. Zahraa Tabbo	- Learn the anatomy and functions of the midbrain, including its nuclei and pathways
25	Cerebrum, Diencephalon	1	Dr. Zahraa Tabbo	- Understand the anatomy of the cerebrum and diencephalon, including the thalamus, hypothalamus, and basal ganglia
26	Third Ventricle	1	Dr. Zahraa Tabbo	- Describe the anatomy and functions of the third ventricle in the diencephalon, including its connections and circulation
27	Cerebral Hemispheres	1	Dr. Zahraa Tabbo	- Understand the structure and functions of the cerebral hemispheres, including lobes, gyri, and sulci
28	Lateral Ventricle	1	Dr. Zahraa Tabbo	- Learn the anatomy and functions of the lateral ventricles in the cerebral hemispheres, including CSF circulation
29	Basal Ganglia	1	Dr. Zahraa Tabbo	- Describe the anatomy and functions of the basal ganglia in the cerebrum, including their role in motor control
30	Functional Localization Areas	1	Dr. Zahraa Tabbo	- Identify the key functional areas of the cerebral cortex and their respective roles in sensory and motor functions
31	White Matter of the Brain	1	Dr. Zahraa Tabbo	- Understand the structure and functions of the white matter in the brain, including fiber tracts and pathways

32	Spinal Cord	1	Dr. Zahraa Tabbo	- Describe the anatomy and functions of the spinal cord, including gray and white matter, and spinal nerve distribution
33	Tracts of the Spinal Cord	1	Dr. Zahraa Tabbo	- Learn the major ascending and descending tracts of the spinal cord and their functions
34	Circulation of CSF	1	Dr. Zahraa Tabbo	- Understand the production, circulation, and absorption of cerebrospinal fluid (CSF) within the brain and spinal cord
35	Blood Supply of Brain	1	Dr. Zahraa Tabbo	- Describe the arterial supply and venous drainage of the brain, including important vessels and territories
36	Autonomic Nervous System	1	Dr. Zahraa Tabbo	- Learn the anatomy and functions of the autonomic nervous system, including sympathetic and parasympathetic divisions
37	The Abdominal Wall Part 1	1	Dr. Waleed Hazim	- Understand the layers, muscles, and fascia of the anterior abdominal wall, including their surgical relevance
38	The Abdominal Wall Part 2	1	Dr. Waleed Hazim	- Describe the innervation and blood supply of the abdominal wall muscles, including their functional significance
39	The Abdominal Wall Part 3	1	Dr. Waleed Hazim	- Learn about hernias, surgical incisions, and clinical considerations related to the abdominal wall
40	Peritoneum	1	Dr. Waleed Hazim	- Understand the anatomy and functions of the peritoneum, including its divisions, folds, and clinical relevance
41	The Stomach	1	Dr. Waleed Hazim	- Describe the gross anatomy of the stomach, including its regions, blood supply, innervation, and histological features
42	The Spleen	1	Dr. Waleed Hazim	- Learn about the location, structure, functions, and blood supply of the spleen

43	Duodenum	1	Dr. Waleed Hazim	- Understand the anatomy and functions of the duodenum, including its parts, blood supply, and relations
44	The Pancreas	1	Dr. Waleed Hazim	- Describe the anatomy, histology, and functions of the pancreas, including its endocrine and exocrine components
45	The Jejunoileum	1	Dr. Waleed Hazim	- Identify the anatomy and functions of the jejunum and ileum, including their histological features and blood supply
46	The Large Intestine	1	Dr. Waleed Hazim	- Learn about the gross anatomy, regions, and functions of the large intestine, including its histological features
47	Liver and Gall Bladder	1	Dr. Waleed Hazim	- Understand the anatomy, functions, and blood supply of the liver and gallbladder, including bile production and storage
48	Portal Vein and Portal Circulation	1	Dr. Waleed Hazim	- Describe the portal vein system and its circulation, including the hepatic portal vein, tributaries, and clinical aspects
49	Lymphatic Drainage of Abdomen	1	Dr. Waleed Hazim	- Learn about the lymphatic drainage pathways and nodes in the abdomen, including their clinical significance
50	Autonomic Innervation of Abdomen	1	Dr. Waleed Hazim	- Understand the autonomic innervation of abdominal organs, including sympathetic and parasympathetic pathways
51	Abdominal Aorta and Inferior Vena Cava	1	Dr. Waleed Hazim	- Describe the course, branches, and relations of the abdominal aorta and inferior vena cava
52	The Kidneys and The Suprarenal Glands	1	Dr. Waleed Hazim	- Learn about the anatomy, blood supply, and functions of the kidneys and suprarenal glands
53	The Diaphragm	1	Dr. Waleed Hazim	- Understand the anatomy, attachments, and functions of the diaphragm, including its role in

				respiration
54	Bony Pelvis and Peritoneum	1	Dr. Waleed Hazim	- Describe the bony pelvis and its subdivisions, as well as the peritoneal reflections and pelvic viscera
55	Perineum and Superficial and Deep Perineal Spaces	1	Dr. Waleed Hazim	- Identify the boundaries and contents of the perineum, including superficial and deep perineal spaces
56	Male Urethra	1	Dr. Waleed Hazim	- Describe the anatomy of the male urethra, including its parts, blood supply, innervation, and clinical relevance
57	Urinary Bladder	1	Dr. Waleed Hazim	- Understand the anatomy and functions of the urinary bladder, including its histology, innervation, and blood supply
58	Male Genital Organs	1	Dr. Waleed Hazim	- Learn about the anatomy of the male genital organs, including the testes, epididymis, ductus deferens, and penis
59	Female Genital Organs	1	Dr. Waleed Hazim	- Describe the anatomy of the female genital organs, including the ovaries, fallopian tubes, uterus, and vagina
60	Pelvic Diaphragm and Blood Supply Blood Supply	1	Dr. Waleed Hazim	- Understand the anatomy and functions of the pelvic diaphragm, including its role in supporting pelvic viscera - Learn about the arterial and nerve supply of the pelvis,

8.Tables of the Course

- جداول التدريب النظري والعملي

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الثانية / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠
الأحد	الجزء النظري من الجانب العملي كيمياء A	كيمياء A		كيمياء B		الجزء النظري من الجانب العملي الكيمياء B
	الجزء النظري من الجانب العملي فسلجة B	فسلجة B		فسلجة A		الجزء النظري من الجانب العملي الفسلجة A
الاثنين	تشريح A		فسلجة A		مناقشة TBL للمجموعتين A و B	
	انسجة B		تشريح B			
الثلاثاء	انسجة A		كيمياء A	اجنة A	جرائم نظام البعث في العراق A و B	
	اجنة B	كيمياء B	فسلجة B			
الأربعاء	تشريح عملي ١ كيمياء عملي ٢ انسجة عملي ٣ فسلجة عملي ٤	تشريح عملي ٢ كيمياء عملي ٣ انسجة عملي ٤ فسلجة عملي ١	تشريح عملي ٣ كيمياء عملي ٤ انسجة عملي ١ فسلجة عملي ٢	تشريح عملي ٤ كيمياء عملي ١ انسجة عملي ٢ فسلجة عملي ٣		
الخميس	تشريح عملي ٥ كيمياء عملي ٦ انسجة عملي ٧ فسلجة عملي ٨	تشريح عملي ٦ كيمياء عملي ٧ انسجة عملي ٨ فسلجة عملي ٥	تشريح عملي ٧ كيمياء عملي ٨ انسجة عملي ٥ فسلجة عملي ٦	تشريح عملي ٨ كيمياء عملي ٥ انسجة عملي ٦ فسلجة عملي ٧		

ملاحظة : مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

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9.Learning Resources

- Course Materials: Textbook, lecture slides, online resources, and practical lab sessions
- Snell Clinical Anatomy by Regions

10.Additional Information

- Lecturer/ theory: Dr. Waleed Hazim, Dr. Eman Ghanim, Dr Dr. Saif Mudafer and Dr. Zahra Tabbo
- Lecturer/ practical: Dr. Waleed Hazim, Dr. Eman Ghanim, and Dr. Zahra Tabbo
- Moore's Clinical Anatomy
- Netter Atlas of Human Anatomy

Histology Curriculum For 2nd Year

1.General Information:

Subject: histology
Code: 2 11
Credit hours: 6 units(45hrs theory + 90hrs practical)
Course Language: English.

2.Syllabus:

-Vascular system

- General structure of blood vessels
- Structure of heart
- Blood

-Lymphatic system

- General structure of lymphatic tissues
- Thymus and lymph node
- Spleen and tonsil

-Digestive system

- General structures of gastrointestinal tract
- Esophagus and stomach
- Small , large intestine and anal canal

-Glands associated with GIT

- Salivary glands
- Liver , pancreas and gall bladder

-Endocrine system

- General structures of endocrine system, Pituitary
- thyroid glands, Parathyroid
- Adrenal gland and pineal

-Respiratory system

- Upper Respiratory system
- Lower respiratory

-Renal

- Histology of kidney
- Histology of bladder and ureter and urethra

-Female reproductive system

- Histology of female reproductive system
- Endometrium and menstrual cycle
- Histology of mammary gland

-Male reproductive system

- Histology of male reproductive system,testis
- Duct
- Secretary gland

-Nervous system

- Histology of nervous system
- Cerebrum and cerebellum
- Histology of spinal cord

-Skin

- Histology of skin
- Histology of skin appendages

-Photoreceptor & Audioreceptor Systems

- Eye
- Accessory Structures of the Eye
- The Ear (Vestibulocochlear Apparatus)
- Internal Ear

3- Learning objective

Knowledge

Students will be able to describe different types of tissue that constitute human body , to know normal structures and functions of different body systems

Skill

Students will be able to use the microscope to exam and to differentiate between different types of cells, muscles and connective tissue and to know the normal structures of each organ.

4- Outcomes for Educational program

Knowledge

Active Learning Techniques: Utilize active learning techniques such as summarizing key points, creating flashcards, or teaching the material to someone else. This helps reinforce understanding and retention.

Skill

Visual Aids and Diagrams: Use diagrams, charts, and models to visualize complex structures and processes. This can aid in understanding and memorization.

Practice with Quizzes and Questions: Test your understanding regularly with quizzes and practice questions. This helps identify areas of weakness that need further review.

5.Course Overview

- **The course is composed of two parts as follow**:

1.*Theoretical Part . 2. Practical part*

- **Duration:**

For the theoretical part:

Weekly Hours: 2

Total:45 hours per academic year

For the practical part:
Weekly Hours: 2
Total: 90 hours per academic year

- **location**:

-For the theoretical part: Lecture Hall
-For the practical part: histology laboratory

- **Format:**
  - Tutor based
  - Student based
  - Interactive

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams, log books and TBL
- **Summative Assessments**: Midterm exams, end term exams
- **Continuous Feedback**: Provided throughout the course

Component of assessment:

Midyear examination

10 marks for practical
20 marks for theory
10 marks for quizzes , log books and TBL

Final year examination

15 marks for practical
45 marks for theory

blue print for final histology exam 2024

class .....2..... College/ Departme

Unit/ Course/ Subject: .....

	Lecturs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for75 questions exams(W*75)	No. of test items on each SLO
1	circulatory system	L	2	1	1	0.027027	2.027027027	2
2	Lymphatic System	L	1	1	2	0.0540541	4.054054054	4
3	git	L	1	2	2	0.0540541	4.054054054	4
4	glands git	L	1	2	2	0.0540541	4.054054054	6
5	respiratory system	L	1	1	1	0.027027	2.027027027	
6	renal -kidney	L	1	4	4	0.1081081	8.108108108	8
7	endocrine	L	1	4	4	0.1081081	8.108108108	8
8	FRS	L	1	5	5	0.1351351	10.13513514	10
	CNS	L	1	4	4	0.1081081	8.108108108	8
9	MRS	L	1	4	4	0.1081081	8.108108108	8
10	Skin	L	2	2	4	0.1081081	8.108108108	8
11	eye	L	1	2	2	0.0540541	4.054054054	4
12	ear	L	1	2	2	0.0540541	4.054054054	4
	total		15	34	37	1	75	74

6. Instructional objective of the lectures

Semester 1				
Lect no.	**Topics Covered**	**Teaching Faculty**	**No. of lect.**	**Instructional objective**
1	General structure of blood vessels	د زهراء عبد القادر	1	To describe histology of BV
2	Large , medium size , small and capillary	د زهراء عبد القادر	1	To differentiate between artery and vein of different sizes
3	Structure of heart	د زهراء عبد القادر	1	To define Type, structure and arrangement of heart muscles
4	Blood	د زهراء عبد القادر	1	To describe Structure of blood Cells of blood

5	General structure of lymphatic tissues	د زهراء عبد القادر	1	To define the Histology , type and function of immune system
6	Thymus and lymph node	د زهراء عبد القادر	1	To describe Structure and function
7	Spleen and tonsil	د زهراء عبد القادر	1	To describe Structure and function
8	General structures of gastrointestinal tract	د ايمان غانم	1	To Classify , function and general structure of digestive tract
9	Oral cavity Esophagus	د ايمان غانم	1	To define Structure of tongue and different parts esoph
10	stomach and Small	د ايمان غانم	1	To describe Type of cells and regional differentiation
11	large intestine and Anal canal	د ايمان غانم	1	To define Structures and function
12	Salivary glands	د ايمان غانم	1	To Classify and stucture
13	Liver	د ايمان غانم	1	To describe Structure and function
14	gall bladder and pancreas	د ايمان غانم	1	To define Structures
15	General structures of endocrine system	د ايمان غانم	1	To numerate Type , function and general structure
16	Pituitary	د ايمان غانم	1	To Classify , differences between lobes and function
17	thyroid glands	د ايمان غانم	1	To define Structure and function
18	**Parathyroid**	د ايمان غانم	1	To explain Structure and function
19	**Adrenal gland** and pineal	د ايمان غانم	1	To Classify , differences between parts and function
20	Respiratory epithelium	**د . زهراء عبد القادر**	1	**To describe Type of cells and structure differentiation**
21	Upper respiratory	**د . زهراء عبد القادر**	1	**To describe Structures of nose trachea, bronchus**
22	Lower respiratory	د . زهراء عبد	1	**To identify Lunge ,**

		القادر		**bronchial tree**
Semester 2				
1	Histology of kidney	د ايمان غانم	1	To define Cross and microscopic structure
2	Juxta-glomerular and mesengeal	د ايمان غانم	1	To describe Structure and function
3	Histology of bladder and ureter urethra	د ايمان غانم	1	To numerate Types of epithelial and structure of wall
4	**Histology of female reproductive system**	د زهراء عبد القادر	1	To Classify and function
5	**ovary**	د زهراء عبد القادر	1	To define and explain Growth of follicles
6	Endometrium and menstrual cycle	د زهراء عبد القادر	1	To describe Hormonal control and structural changes
7	Genitalia	د زهراء عبد القادر	1	To differentiate Cervix structure Vaginal structure
8	Histology of mammary gland	د زهراء عبد القادر	1	To differentiate Active and inactive
9	Histology of male reproductive system	د ايمان غانم	1	To describe Structure of testis
10	Histology of male reproductive system	د ايمان غانم	1	To define Spermatogenesis
11	Duct	د ايمان غانم	1	To describe Structure of excretory system
12	Gland	د ايمان غانم	1	To define Structure of genital gland and its function
13	Histology of nervous system	د ايمان غانم	1	To describe structure Types of neuron
14	cerebrum cerebellum	د ايمان غانم	1	Type of cells and differences
15	Meninges and choroidal plexus		1	To define Types and structure
16	Histology of spinal cord	د ايمان غانم	1	To describe Structure and segments of SC
17	Histology of skin	د ايمان غانم	1	To differentiate Layers

				of skin
18	Histology of skin	د ايمان غانم	1	To describe Types of skin
19	Histology of skin appendages	د ايمان غانم	1	To define Glands and hair
20	Histology of eye	د ايمان غانم	1	To describe Structure of eye ball
21	Histology of eye	د ايمان غانم	1	To explain Accessory Structures of the Eye
22	Histology of ear	د زهراء عبد القادر	1	To define Vestibulocochlear Apparatus
23	Histology of ear	د زهراء عبد القادر	1	To describe structure of Internal Ear

7. Instructional Objective of laboratory sessions

Topics Covered	**Teaching Faculty**	Weak	**Instructional objective**
Circulatory system	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	1st and 2nd	At end the student should be able to • To know histology of BV • To differentiate between artery and vein of different sizes • To know structure of heart • To differentiate between of blood Cells
Lymphatic system	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	3rd & 4th week	• To know type immune cells • To differentiate between different lymphatic organs
GIT & glands associated with it	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	5TH 6TH &7th	• To know Structure of digestive tube • Differentiate between different regions • To know structures of glands
Respiratory	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	8th & 9th	• Differentiate between upper and lower tract different regions • To know Structure of lung and bronchial tree

Renal system	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	10th& 11th	• To know microscopic structure of kidney • Differentiate between different regions
endocrine	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	12th & 13th	• To describe Structure of endocrine cells • Todeferentiate between the glands
CNS	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	14th & 15	• To identify , general structure • To deferentiate between the cerebrum and cerebellum • Todeferentiate between the segments of SC
FRS	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	16th,17th & 18th	• To know Structure of ovary • To know growing follicles • To deferentiate between the stages of MC • Todeferentiate between the actve and inactive mammary glands
MRS	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	19th & 20th	• To describe Type of cells differentiation in spermatogenesis • To know structure os cells in semniferous tubule • Genital duct structure • Differences between genital glands
Skin	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	21th	• To define Structures of layers • To describe Types of skin • To define Glands and hair
Eye and ear	د ايمان غانم د زهراء عبالقادر رشا اسماعيل	22th	• To describe Structure of eye ball • To know Structures of Accessory parts • To define Vestibulocochlear Apparatus • To describe structure of Internal Ear

8- Tables of Course

2:30-3:30	1:30-2:30	12:30-1:30	11:30-12:30	10:30-11:30	9:30-10:30	8:30-9:30	الساعة / اليوم
							السبت
							الاحد
		TBL			histology	histology	الاثنين
		مناقشة			histology	histology	الثلاثاء
		عملي	عملي	عملي	عملي	عملي	الاربعاء
		عملي	عملي	عملي	عملي	عملي	الخميس

9- Learning Resources

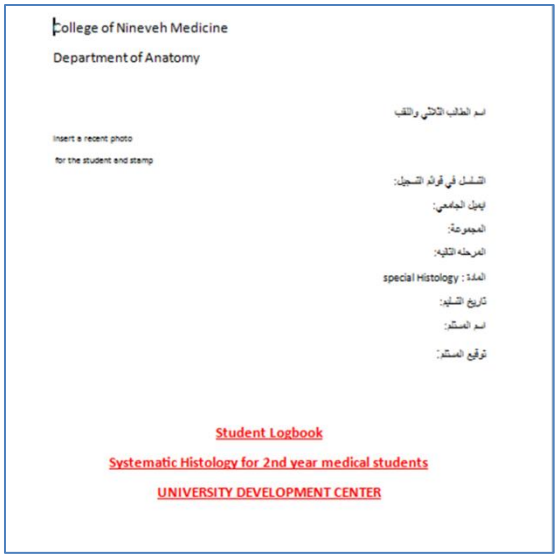
- Textbook, Basic Histology Functional histology Atlas of histology
- lecture slides, online resources, and practical lab sessions

10. Additional information

Lecturer/ theory: Dr. Eman Ghanim , Dr. Zahraa Taboo

Lecturer/ practical: Dr. Eman Ghanim , Dr. Zahraa Taboo, Rasha Ismael

11. Appendix:



College of Nineveh Medicine

Department of Anatomy

اسم الطالب الثلاثي واللقب

Insert a recent photo

for the student and stamp

التسلسل في قوائم التسجيل:

ايميل الجامعي:

المجموعة:

المرحلة الثانية:

المادة: special Histology

تاريخ التسليم:

اسم المستلم:

توقيع المستلم:

Student Logbook

Systematic Histology for 2nd year medical students

UNIVERSITY DEVELOPMENT CENTER

جرائم نظام البعث في العراق

1.معلومات عامة

- الموضوع: جرائم نظام البعث في العراق
- رمز المادة: (212)
- الوحدات: 2
- اللغة التي تدرس بها المادة: اللغة العربية

2.المفردات:

- جرائم نظام البعث وفق قانون المحكمة الجنائية العراقية العليا عام ٢٠٠٥ م
- مفهوم الجرائم وأقسامها
- جرائم نظام البعث وفق توثيق قانون المحكمة الجنائية العراقية العليا عام ٢٠٠٥ م

2. الجرائم النفسية والاجتماعية وأثارها، وأبرز انتهاكات النظام البعثي في العراق
   - آليات وآثار الجرائم النفسية
   - الجرائم الاجتماعية وعسكرة المجتمع
   - موقف النظام البعثي من الدين
   - انتهاكات حقوق الانسان وجرائم السلطة
   - الانتهاكات السياسية والعسكرية
3. الجرائم البيئية
   - التلوث الحربي والاشعاعي وانفجار الألغام
   - تدمير المدن والقرى (سياسة الأرض المحروقة)
   - تجفيف الاهوار وتجريف البساتين
4. جرائم المقابر الجماعية

3.اهداف التعلم:

توثيق بعض من (جرائمَ النظامِ البعثيّ) ؛ ليكونَ مَبصَرَ حقيقةٍ يشُرِفُ به الشبابُ الجامعيُّ الحاليُّ على ما مضَى من حياة عقودٍ مِن حُكمِ العراقِ بيدِ طاغيةٍ شيطانٍ بهيأة إنسانٍ.

4.مخرجات المنهاج:

استحضار الطلاب من اطلاعهم على المنهج ما يجعلهُم على هُدىً يدرؤُون بهِ كلَّ تعَمِيةٍ إعلاميةٍ تحُاولُ تضليلهَم ؛ فيمَنعوُن به كلّ عمًى.

5. نظرة عامة على المادة:

- يتكون المنهاج من الجزء النظري فقط
- المدة: ساعة دراسية واحدة في الأسبوع – الفصلين الأول والثاني – المجموع 30 ساعة
- مكان التدريس: قاعة المحاضرات
- طريقة التدريس: الالقاء المعتمد على الأستاذ
- طرق الاختبار: الاختبار الورقي: امتحان نصف السنة والامتحان النهائي
- مكونات التقييم: الاختبار النظري الورقي – 100 جرجة

- تفصيل تقسيم الدرجة:
  - السعي السنوي (40 درجة)
  - الامتحان النهائي (60 درجة)
- درجة النجاح: 50%

6.الأهداف التعليمية للمحاضرات:

ت	عنوان المحاضرة	عدد الساعات	التدريسي
1	مفهوم الجرائم وأقسامها	4	م. م. بيداء بشير يونس
2	جرائم نظام البعث وفق توثيق قانون المحكمة الجنائية العراقية العليا عام ٢٠٠٥ م	4	م. م. بيداء بشير يونس
3	الجرائم النفسية	2	م. م. بيداء بشير يونس
4	الجرائم الاجتماعية	2	م. م. بيداء بشير يونس
5	انتهاكات القوانين العراقية	5	م. م. بيداء بشير يونس
6	الجرائم البيئية لنظام البعث في العراق	4	م. م. بيداء بشير يونس
7	جرائم المقابر الجماعية	4	م. م. بيداء بشير يونس

7.الأهداف التعليمية للمادة العملية:

لايوجد جزء عملي.

8.جدول التدريس:

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الثانية / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠
الأحد	الجزء النظري من الجانب العملي كيمياء A	كيمياء A		كيمياء B		الجزء النظري من الجانب العملي الكيمياء B
	الجزء النظري من الجانب العملي فسلجة B	فسلجة B		فسلجة A		الجزء النظري من الجانب العملي الفسلجة A
الاثنين	تشريح A		فسلجة A		مناقشة TBL للمجموعتين A و B	
	انسجة B		تشريح B			
الثلاثاء	انسجة A		كيمياء A	اجنة A	جرائم نظام البعث في العراق A و B	
	اجنة B	كيمياء B	فسلجة B			
الأربعاء	تشريح عملي ١ كيمياء عملي ٢ انسجة عملي ٣ فسلجة عملي ٤	تشريح عملي ٢ كيمياء عملي ٣ انسجة عملي ٤ فسلجة عملي ١	تشريح عملي ٣ كيمياء عملي ٤ انسجة عملي ١ فسلجة عملي ٢	تشريح عملي ٤ كيمياء عملي ١ انسجة عملي ٢ فسلجة عملي ٣		
الخميس	تشريح عملي ٥ كيمياء عملي ٦ انسجة عملي ٧ فسلجة عملي ٨	تشريح عملي ٦ كيمياء عملي ٧ انسجة عملي ٨ فسلجة عملي ٥	تشريح عملي ٧ كيمياء عملي ٨ انسجة عملي ٥ فسلجة عملي ٦	تشريح عملي ٨ كيمياء عملي ٥ انسجة عملي ٦ فسلجة عملي ٧		

ملاحظة : مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

يعلن

١/٢٥

9.المصادر:

كتاب جرائم نظام البعث في العراق – وزارة التعليم العالي والبحث العلمي.

10. المزيد من المعلومات:

التواصل مع مدرسة المادة م. م. بيداء بشير يونس.

Biochemistry for the second year

1.General Information:

- **Subject**: Biochemistry
- **Code**: (213)
- **Credit hours**: 8(90 theoretical+ 60 practical+ 30 discussion hours).
- **Course Language**: English.

2.Syllabus:

- Enzymes:

- Introduction.
- Structures of enzymes.
- Functions of enzymes.
- Enzymes kinetics.
- Mechanism of action.
- Bioenergetics.

- **Biologic Oxidation**:

- Introduction
- Oxidases and Dehydrogenases.
- Oxygenases, peroxidases and superoxide dismutase.

- **Oxidative Phosphorylation**:

- Structure of mitochondria.
- Components of respiratory chain.
- Mechanism of action.
- ATP synthase
- Inhibition of respiratory chain.
- Substrate shuttle.

- Obesity and Metabolic Syndrome:

- Introduction.
- Obesity.
- Metabolic syndrome.

- Carbohydrate Metabolism:

- Introduction.
- Glycolysis.
- Krebs cycle.
- Pentose phosphate pathway.
- Glycogen metabolism.
- Gluconeogenesis.
- Biochemistry of Diabetes Mellitus.

- Lipid Metabolism:

- Introduction.

- Fatty acids synthesis.
- Fatty acid oxidation.
- Ketone bodies.
- Metabolism of triglycerides and phospholipids.
- Types of adipose tissues.
- Transport of lipid in human.
- Bile acid and cholesterol synthesis.
- Factors affecting serum lipid level and atherosclerosis.
- Dyslipidemia.

- Cardiac Markers:

- Introduction.
- Role of cardiac markers in medicine.

- **Micronutrients:**

- Trace elements
- Introduction to vitamins
- Folic acid and Vitamin B12
- Vitamins B1,B2 and B6
- Vitamins A and D
- Vitamins C, E and K

-Biochemistry of Endocrine System:

- Introduction.
- Adrenocortical hormones.
- Testicular hormones.
- Ovarian hormones.
- Catecholamines.
- Thyroid hormones.
- Hypothalamic and pituitary hormones.
- Pancreatic hormones.
- Parathyroid hormones.

- Protein Metabolism:

- Introduction.
- In vivo synthesis of nutritionally nonessential amino acids.
- Formation of peptides.
- Catabolism of amino acid nitrogen.
- Catabolism of carbon skeleton of amino acids.
- Amino acids form pyruvate or intermediates of krebs cycle.
- Amino acids form acetyl-CoA.
- Conversion of amino acids to specialized products.

- Hemoprotein:

- Biochemistry of hemoglobin and myoglobin.
- Hemoglobinopathy.

- Porphyrin:

- Heme biosynthesis.
- Porphyria.
- Heme catabolism.

- Tumor Markers:

- Introduction.
- Role of tumor markers in medicine.

- Miscellaneous:

- Metabolic response to trauma.
- Free radicals and antioxidants.

- Practical Part:

- Introduction.
- SI Units
- Types of specimens.
- Urine Examination (1).
- Urine Examination (2).
- Spectrophotometer.
- Calibration Curve.
- Serum Albumin.
- Blood Glucose.
- Serum Calcium.
- Serum Phosphorus.
- Serum Uric acid.
- Serum Protein Electrophoresis.
- Lipid Profile (1).
- Lipid Profile (2).
- P.C.R.
- Serum Urea.
- Serum Creatinine.
- Liver Function Test and Serum Transaminases.
- Serum Alkaline Phosphatase.
- Serum Bilirubin.

3.Learning Objective:

Knowledge

- **Enzymes**: Students will be able to understand the biochemistry of enzymes and identify their role in health & disease.
- **Biologic oxidation**: Students will be able to the important aspects of biologic oxidation including definition, classification and mechanism of action of oxidoreductases and correlate the subject with clinical problems.

- **Oxidative Phosphorylation:** Students will be able to know about the location, component and mechanism of action of respiratory chain and understand the effect of certain substances on oxidative phosphorylation.
- **Obesity and Metabolic Syndrome:** Students will be able to identify the important introduction topics in biochemistry that prepares them to study the metabolism of these subject in detail in the second year.
- **Micronutrients:** Students will be able to identify the sources, function, causes of deficiency with its relation to clinical problems of minerals and vitamins.
- **Metabolism:** Students will be able to understand the different pathways of the metabolism of major nutrients including carbohydrate, lipid and protein to be linked mainly to the causes and methods of treating various common diseases in society.
- **Biochemistry of endocrine system:** Students will be able to understand the biochemical synthesis of hormones, control of their secretions, functions and correlate the subject with clinical problems.
- **Hemoproteins and porphyrin:** Students will be able to identify the heme metabolism and its correlation with clinical problems and to compare between different types of hemoproteins.
- **Cardiac and tumor markers:** Student will be able to identify different types of cardiac and tumor markers and the relation of each type in diagnosis and follow up of ischemic heart disease and tumor respectively.
- **Metabolic response to trauma:** Students will be able mainly to know the mechanism of body response toward trauma and exploiting the reserves in the body.
- **Free radicals and antioxidants:** Students will be able to know the mechanism of free radical synthesis and its roles in health and disease and to compare between different sources of antioxidants as protective against free radicals.

Skills

- **Equipment and Instruments:** The students will be able to name the equipment and instruments present in lab related to their subjects like spectrophotometer, centrifuge, water bath semiautomated pipette, electrophoresis and practice to use them.
- **Conduction of the experiment and interpretation of the results:** Th e students will be able to do and interpret the results of chemical experiment reactions like biochemical urine analysis, estimation of different biochemical parameters.

Attitudes

The students will be fully committed to chemical safety and security conditions when working inside the laboratory, such as wearing lab coats, masks and gloves and dealing quickly and correctly with any emergency.

4. Outcomes for Educational Program

Knowledge

The graduates will have a good knowledge to provide a health advice in the field of biochemical laboratory tests and is widely acquainted with the science of clinical biochemistry to be ready for studying and understanding the related clinical subjects in the subsequent years.

Skills

The graduates will have an enough skill to prepare the patient scientifically for the different biochemical tests, can conduct these tests in the lab and interpret the results.

Attitude

The graduates will act properly in preparing the patient for biochemical investigations, handling chemicals in addition to act in a scientifically correct manner in the event of any emergency.

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part. 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: Three hours per week (first semester)
- Weekly Hours: Three hours per week (second semester)
- Total: 60 hours per academic year

For the practical part:

- Weekly Hours: Two hours per week (first semester)
- Weekly Hours: Two hours per week (second semester)
- Total: 60 hours per academic year

- **Location**:

-For the theoretical part: Lecture Hall in the college.

-For the practical part: Chemistry and biochemistry lab. In the college.

- **Format**:

- For the theoretical part

- Tutor-Centered.
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching.
- Team Based Learning (TBL)

- *For the practical part.*

- Problem-Based Learning (PBL).
- Conduct laboratory experiments.
- Discuss and interpret the results.
- Lectures and Seminars.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams, identification of unknown and pre end term theoretical exam.
- **Summative Assessments**: Midterm theoretical exams, end term theoretical and practical exams, first and second semesters practical exams.

  Both Midterm and end term theoretical Exams are done according to Blueprint.
- **Continuous Feedback**: Provided throughout the course.

Components of Assessment:

- Written theoretical Exams (70% of total grade)
- Practical Exams (20 % of total grade)
- Laboratory Performance and Logbook (5% of total grade)
- Theoretical Performance (5% of total grade)

-*Detailed Breakdown*

- **Written Theoretical Exams (70%)**:
  - Midterm Exam: 20%. Covers the theoretical topics in the first semester, includes multiple-choice questions (MCQs) and short answer questions (SAQs)
  - End term Exam: 50%. Comprehensive exam covering the entire theoretical course content, includes MCQs and SAQs.
- **Practical Exams (20%)**:

- First Semester Exam: 5%. Cover the practical topics in the first semester. Includes MCQs.
- Second Semester Exam: 5%. Cover the practical topics in the second semester. Includes MCQs.
- End term Exam: 10%. Comprehensive exam covering the entire practical course content, includes MCQs, practical exams performed in the lab and oral exams.

❖ **Laboratory Performance and Logbook (5%)**:

- First Semester Laboratory Performance and Logbook: 2.5%. Assessed by the academic staff during laboratory work based on direct observation of the student laboratory performance and organization of the logbook.
- Second Semester Laboratory Performance and Logbook: 2.5%. Assessed by the academic staff during laboratory work based on direct observation of the student laboratory performance and organization of the logbook.

❖ **Theoretical Performance (5%)**

- First Semester theoretical Performance: 2.5%. Assessed by the academic staff during theoretical lecture and TBL. Based on student participation and interaction in the lecture, in addition to evaluate the results of students' answers of TBL questions.
- Second Semester theoretical Performance: 2.5%. Assessed by the academic staff during theoretical lecture and TBL. Based on student participation and interaction in the lecture, in addition to evaluate the results of students' answers of TBL questions.

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment:** Assignments, quizzes and presentations.

Blueprints of mid-year and final exams.

Blueprint for Biochemistry

Group No.: .....

Unit/ Course/ Subject: .....Written Mid-year assessment exam for 2nd stage (Biochemistry) 2023-2024/ 1st trial

		Unit LOs	I	F	I*F	weight(I*F /T	No. of marks for 20 degree of theory (Mid)	Calculated No of questions in final exam	No. of questions	Cognitive Skill: Remembering (direct questions)	Cognitive Skill: Understanding (indirect questions)	Cognitive Skill: Application of knowledge	Ass. MCQ	Ass. Total no. of items
10	biochemistry	Introduction of biologic oxidation.	1	1	1	0.006493506	0.1298701	0.32468	0				0	0
7		Oxidases and Dehydrogenases.	2	2	4	0.025974026	0.5194805	1.2987	1	1			1	1
8		Oxygenases, peroxidases & superoxide dismutase.	2	2	4	0.025974026	0.5194805	1.2987	1		1		1	1
9		Structure of mitochondria.	3	1	3	0.019480519	0.3896104	0.97403	1		1		1	1
10		Components of respiratory chain.	3	1	3	0.019480519	0.3896104	0.97403	1	1			1	1
11		Mechanism of respiratory chain action.	3	2	6	0.038961039	0.7792208	1.94805	2		1	1	2	2
12		ATP synthase	2	1	2	0.012987013	0.2597403	0.64935	0				0	0
13		Inhibition of respiratory chain.	3	2	6	0.038961039	0.7792208	1.94805	2		1	1	2	2
14		Substrate shuttle.	3	2	6	0.038961039	0.7792208	1.94805	2	1	1		2	2
15		Introduction of obesity	1	1	1	0.006493506	0.1298701	0.32468	0				0	0
16		Obesity & Metabolic syndrome	3	3	9	0.058441558	1.1688312	2.92208	3		1	2	3	3
17		Introduction of carbohydrates	2	1	2	0.012987013	0.2597403	0.64935	1		1		1	1
18		Glycolysis (1)	2	2	4	0.025974026	0.5194805	1.2987	1		1		1	1
19		Glycolysis (2)	2	2	4	0.025974026	0.5194805	1.2987	1	1			1	1
20		Krebs cycle (1)	2	2	4	0.025974026	0.5194805	1.2987	1	1			1	1
21		Krebs cycle (2)	2	3	6	0.038961039	0.7792208	1.94805	2		1	1	2	2
22		Pentose phosphate pathway	2	2	4	0.025974026	0.5194805	1.2987	1	1			1	1
23		Glycogen metabolism (1)	2	1	2	0.012987013	0.2597403	0.64935	1		1		1	1
24		Glycogen metabolism (2)	2	1	2	0.012987013	0.2597403	0.64935	1		1		1	1
25		Gluconeogenesis	3	2	6	0.038961039	0.7792208	1.94805	2		2		2	2
26		Diabetes Mellitus	3	3	9	0.058441558	1.1688312	2.92208	3	1	1	1	3	3
27		Introduction of lipids (1)	1	1	1	0.006493506	0.1298701	0.32468	1		1		1	1
28		Introduction of lipids (2)	1	1	1	0.006493506	0.1298701	0.32468	0				0	0
29		Fatty acids synthesis.	3	2	6	0.038961039	0.7792208	1.94805	2	1	1		2	2
30		Fatty acid oxidation	3	2	6	0.038961039	0.7792208	1.94805	2		1	1	2	2
31		Ketone bodies	3	3	9	0.058441558	1.1688312	2.92208	3	1	1	1	3	3
32		Metabolism of triglycerides and phospholipids.	2	1	2	0.012987013	0.2597403	0.64935	1	1			1	1
33		Types of adipose tissues.	3	1	3	0.019480519	0.3896104	0.97403	1		1		1	1
34		Transport of lipid in human (1)	3	2	6	0.038961039	0.7792208	1.94805	2	1	1		2	2
35		Transport of lipid in human (2)	3	2	6	0.038961039	0.7792208	1.94805	2	1		1	2	2
36		Bile acid and cholesterol synthesis.	2	2	4	0.025974026	0.5194805	1.2987	1	1			1	1
37		Factors affecting serum lipid level & Dyslipidemia	2	3	6	0.038961039	0.7792208	1.94805	2		1	1	2	2
		total	81	67	152	0.98701	19.74026	49.3506	50	18	22	10	50	50

Blueprint for Biochemistry

Group No.: .....

Unit/ Course/ Subject: .....Written final assessment exam for 2nd stage (Biochemistry) 2023-2024/ 1st trial. **Year:** 2023/2024

		Unit LOs	I	F	I*F	weight(I*F /T	No. of marks for 70 degree of theory (Mid+ Final)	No. of test gived in mid year exam	No. of Marks in Mid year exam	No. ofmarks in final exam	No. of questions in final exam.	Calculated No of questions in final exam	Cognitive Skill: Remembering (direct question)	Cognitive Skill: Understanding (indirect question)	Cognitive Skill: Application of knowledge	Ass.: MCQ	Ass.: Total no. of items
1	biochemistry	Introduction of enzymes.	2	3	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1	1			1	1
2		Structures of enzymes.	2	1	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
3		Functions of enzymes.	1	2	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
4		Enzymes kinetics.	1	2	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
5		Mechanism of action.	1	2	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
7		Introduction of biologic oxidation.	1	1	1	0.003367003	0.2356902	0	0	0.23569	0.33534	0				0	0
8		Oxidases and Dehydrogenases.	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1		1		1	1
9		Oxygenases, peroxidases & superoxide dismutase.	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1		1		1	1
10		Structure of mitochondria.	3	1	3	0.01010101	0.7070707	1	0.4	0.30707	0.46061	1		1		1	1
11		Components of respiratory chain.	3	1	3	0.01010101	0.7070707	1	0.4	0.30707	0.46061	1		1		1	1
12		Mechanism of respiratory chain action.	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1			1	1	1
13		ATP synthase	2	1	2	0.006734007	0.4713805	0	0	0.47138	0.70707	1			1	1	1
14		Inhibition of respiratory chain.	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1	1			1	1
15		Substrate shuttle.	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1		1		1	1
16		Introduction of obesity	1	1	1	0.003367003	0.2356902	0	0	0.23569	0.33534	0				0	0
17		Obesity & Metabolic syndrome	3	3	9	0.03030303	2.1212121	3	1.2	0.92121	1.38182	2		1	1	2	2
18		Trace elements	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1	1			1	1
19		Introduction to vitamins	1	1	1	0.003367003	0.2356902		0	0.23569	0.33534	0				0	0
20		Folic acid	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1	1			1	1
21		Vitamin B12	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1	1			1	1
22		Vitamin B1,B2 and B6	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1		1		1	1
23		Vitamin C	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
24		Vitamin A and D	3	3	9	0.03030303	2.1212121		0	2.12121	3.18182	3	1	1	1	3	3
25		Vitamin E and K	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1	1			1	1
26		Introduction of carbohydrates	2	1	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
27		Glycolysis (1)	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1		1		1	1
28		Glycolysis (2)	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1			1	1	1
29		Krebs cycle (1)	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1		1		1	1
30		Krebs cycle (2)	2	3	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1			1	1	1
31		Pentose phosphate pathway	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1	1			1	1
32		Glycogen metabolism (1)	2	1	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
33		Glycogen metabolism (2)	2	1	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
34		Gluconeogenesis	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1	1			1	1
		Diabetes Mellitus	3	3	9	0.03030303	2.1212121	3	1.2	0.92121	1.38182	1	1			1	1
37		Introduction of lipids (1)	1	1	1	0.003367003	0.2356902	1	0.4	-0.16431	-0.24646	0				0	0
38		Introduction of lipids (2)	1	1	1	0.003367003	0.2356902	0	0	0.23569	0.33534	0				0	0
39		Fatty acids synthesis.	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1		1		1	1
40		Fatty acid oxidation	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1		1		1	1
41		Ketone bodies	3	3	9	0.03030303	2.1212121	3	1.2	0.92121	1.38182	2	1	1		2	2
42		Metabolism of triglycerides and phospholipids.	2	1	2	0.006734007	0.4713805	1	0.4	0.07138	0.10707	0				0	0
43		Types of adipose tissues.	3	1	3	0.01010101	0.7070707	1	0.4	0.30707	0.46061	0				0	0
44		Transport of lipid in human (1)	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1		1		1	1
45		Transport of lipid in human (2)	3	2	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1	1			1	1
46		Bile acid and cholesterol synthesis.	2	2	4	0.013468013	0.9427609	1	0.4	0.54276	0.81414	1	1			1	1
47		Factors affecting serum lipid level & Dyslipidemia	2	3	6	0.02020202	1.4141414	2	0.8	0.61414	0.92121	1		1		1	1
48		Introduction of hormones	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
49		Adrenocortical hormones (1)	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		1	1	2	2
		Adrenocortical hormones (2)	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		1	1	2	2
50		Testicular hormones	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2	1	1		2	2
51		Ovarian hormones	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2	1	1		2	2
52		Catecholamines	3	1	3	0.01010101	0.7070707		0	0.70707	1.06061	1		1		1	1
53		Thyroid hormones	3	3	9	0.03030303	2.1212121		0	2.12121	3.18182	3		2	1	3	3
54		Hypothalamic and pituitary hormones	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1		1		1	1
55		Pancreatic hormones	3	3	9	0.03030303	2.1212121		0	2.12121	3.18182	3	1	2		3	3
56		Renin angiotensin system and parathyroid hormone	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		1	1	2	2
57		Introduction of proteins (1&2)	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
59		In vivo synthesis of nutritionally nonessential amino acids (1 &2)	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1	1			1	1
62		Catabolism of amino acid nitrogen (1)	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		1	1	2	2
63		Catabolism of amino acid nitrogen (2)	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		1	1	2	2
64		Catabolism of carbon skeleton of amino acids	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
65		Amino acids form pyruvate or intermediates of krebs cycle	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
66		Amino acids form acetyl-CoA	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1		1		1	1
67		Conversion of amino acids to specialized products	1	1	1	0.003367003	0.2356902		0	0.23569	0.33534	0				0	0
68		Biochemistry of hemoglobin and myoglobin.	2	1	2	0.006734007	0.4713805		0	0.47138	0.70707	1	1			1	1
69		Hemoglobinopathy	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1		1		1	1
70		Heme biosynthesis & Porphyria	2	2	4	0.013468013	0.9427609		0	0.94276	1.41414	1		1		1	1
77		Metabolic response to trauma	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2		2		2	2
		Cardiac Markers	3	2	6	0.02020202	1.4141414		0	1.41414	2.12121	2	1	1		2	2
		Tumor Markers	3	3	9	0.03030303	2.1212121		0	2.12121	3.18182	3	1	1	1	3	3
78		Free radicals and antioxidants	2	3	6	0.02020202	1.4141414		0	1.41414	2.12121	2	1	1		2	2
		total	159	125	297	1	70	50	20	50	75	75	21	41	13	75	75

6.Instructional Objective of the lectures:

1st Semester				
Chapter: Enzymes				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
1st	Introduction	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define enzymes. 2-Differentiate between coenzymes and cofactors. 3- Classify enzymes.
	Structures of enzymes.	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1- Describe the chemical structure of enzymes. 2-Describe isoenzymes.
	Functions of enzymes.	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Discuss the catalytic function of enzymes. 2-Explain the role of enzymes in lowering activation energy.
2nd	Enzymes kinetics.	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define enzyme kinetics. 2-Explain the theories of enzyme kinetics.
	Mechanism of action.	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Describe the mechanism of the action of enzymes. 2-Demonstrate the factors affecting the activity of enzymes. 3- Correlate the subject with related clinical sciences.
	Bioenergetics	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define the bioenergetics. 2-Define and classify the inhibitors of enzymes. 3- Correlate the subject with related clinical sciences.
Chapter: Biologic Oxidation				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**

3rd	Introduction	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Define biologic oxidation. 2-Classify oxidoreductases. 3- Interpret the importance of biologic oxidation.
	Oxidases and Dehydrogenases.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the mechanism of action. 2-List the factors affecting the activity. 3-Memorize examples for each enzyme. 4-Correlate the subject with clinical sciences.
	Oxygenases, peroxidases and superoxide dismutase.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the mechanism of action. 2-List the factors affecting the activity. 3-Memorize examples for each enzyme. 4-Correlate the subject with clinical sciences.
Chapter: Oxidative Phosphorylation				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
4th	Structure of mitochondria.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the structure of mitochondria. 2- Locate the respiratory chain. 3-Demonstrate the energy liberated in mitochondria.
	Components of respiratory chain.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Identify the component of the four complexes of respiratory chain. 2-Demonstrate the sources of reducing equivalent.
	Mechanism of action.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Explain the chemiosmotic theory. 2-Describe the correlation between oxidation and phosphorylation. 3-List the sources of ATP inside the body. 4-Demonstrate the ATP/ADP cycle.
5th	ATP synthase	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the structure of ATP

				synthase. 2-Implement ATP synthase in oxidative phosphorylation.
	Inhibition of respiratory chain.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1- Classify the inhibitors of respiratory chain. 2-Demonstrate the effect of inhibitors on health. 3-Correlate the subject with clinical sciences.
	Substrate shuttle.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-List the substrate shuttle. 2-Describe the mechanism of action. 3-Explain the different number of ATP produced in each shuttle system.
Chapter: Obesity and Metabolic Syndrome				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
6th	Introduction	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to know the importance of the subject.
	Obesity	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Define obesity. 2-Classify obesity. 3- Understand the role of biochemistry in both the causes and outcome of obesity.
	Metabolic syndrome	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Define metabolic syndrome. 2-Classify metabolic syndrome. 3- Understand the role of biochemistry in both the causes and outcome of metabolic syndrome.
Chapter: Carbohydrate Metabolism				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
7th	Introduction	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define carbohydrates. 2-Describe the chemical structures. 3-Classify carbohydrates. 4-Know the sources of carbohydrates.

				5-Name the pathways of glucose metabolism.
	Glycolysis	2	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Discuss its biochemical pathway. 2-Explain the energy produced. 3- Memorize the clinical defects in the pathway. 4-Describe the regulation of the pathway.
8th	Krebs cycle	2	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Discuss the biochemical pathway. 2- Explain the energy produced. 3- Memorize the clinical defects in the pathway. 4-Describe the regulation of the pathway.
	Pentose phosphate pathway	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Discuss the biochemical pathway. 2-Identify the importance of pentose phosphate pathway. 3- Memorize the clinical defects in the pathway. 4-Describe the regulation of the pathway.
9th	Glycogen metabolism	2	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Describe the biochemical pathway of glycogenesis and glycogenolysis. 2-Identify the importance of glycogen metabolism. 3- Define glycogenosis. 4-Describe the regulation of the pathway.
	Gluconeogenesis	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to describe the synthesis of glucose from non-carbohydrate compounds.
Chapter: Lipid Metabolism				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
10th	Introduction	2	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- Describe the properties of lipid. 2-Classify lipids.

				3-Classify the types of fatty acids. 4-Use the different types of nomenclature of fatty acids. 5- Describe the importance of omega 3. 6-Describe the isomerism of fatty acids. 7-Memorize the chemical structures of phospholipid and triacylglycerol.
	Fatty acids synthesis.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the biochemical pathway. 2-Describe the regulation of the pathway. 3- Explain the presence of essential fatty acids. 4-Discuss the importance of essential fatty acids.
11th	Fatty acid oxidation	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the biochemical pathway. 2-Explain the penetration of long chain acyl CoA into inner mitochondrial membrane. 3- Discuss the energy produced. 4-Describe the regulation of the pathway. 5-Identify the clinical aspect of fatty acid oxidation defect.
	Ketone bodies	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1- Define ketone bodies and classify its types. 2- Explain the formation of ketone bodies. 3-Describe the biochemical synthesis of ketone bodies. 4-Discuss the causes of ketonemia and ketoacidosis. 5-Relate the keto diet with weight reduction.
	Metabolism of triglycerides and phospholipids.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1- Understand the synthesis and catabolism of triglycerides and phospholipids. 2- Relate the metabolism with clinical aspect.
12th	Types of adipose tissues.	1	Dr. Bassam	At the end of the study, the students

			Adwar	are supposed to be able to: 1- Classify adipose tissues. 2-Compare between white and brown adipose tissues.
	Transport of lipid in human	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Explain the transport of lipids in body fluid. 2-Describe the structure and types of lipoproteins. 3-Identify the importance oof lipoproteins and apoproteins. 4-Identify the sources of different lipoproteins. 5-Describe the pathways of endogenous and exogenous triacylglycerol. 6-Describe the metabolism of chylomicron, VLDL and HDL. 7-Explain antiatherogenic effect of HDL. 8-Describe the pathway of HDL metabolism. 9- Correlate the subject with related clinical sciences .
13th	Bile acid and cholesterol synthesis.	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the pathway of bile acids and cholesterol synthesis. 2- Explain the cholesterol balance inside the body. 3- Explain the role of LDL in atherogenesis.
	Factors affecting serum lipid level and atherosclerosis	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- List the factors affecting serum lipid level and atherosclerosis. 2-Describe their biochemical mechanism in development of atherosclerosis.
	Dyslipidemia	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- List the causes of both hypolipidemia and hyperlipidemia. 2- Explain the lipid defects occur in these diseases. 3-Identify Fredriksson classification.
Chapter: Cardiac Markers				
Week	**Lecture Titles**	**No. of**	**Faculty**	**Instructional objectives**

		lectures	Member	
14th	Introduction	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1-Define cardiac markers. 2-Identify the types and biochemistry of cardiac markers.
	Role of cardiac markers in medicine.	2	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1-Explain the roles of cardiac markers in diagnosis and follow-up of ischemic heart disease. 2-Choose the ideal cardiac markers according to duration of ischemic attacks.
2nd Semester				
Chapter: Micronutrients				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
1st	Trace elements	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-List the trace elements in human. 2-Discuss the biochemical and clinical role of trace elements in health and diseases.
	Introduction to vitamins	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define the vitamins. 2-Classify the vitamins. 3-Differentiate between water and lipid soluble vitamins.
	Folic acid and Vitamin B12	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Identify the chemical structure. 2-Memorize the sources. 3-Describe the function. 4-Describe the causes of its deficiency. 5-Relate the deficiency with clinical effect.
2nd	Vitamins B1, B2 and B6	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Identify the chemical structure. 2-Memorize the sources. 3-Describe the function. 4-Describe the causes of its deficiency. 5-Relate the deficiency with clinical effect.
	Vitamins A and D	1	Dr. Osama	At the end of the study, the students

			Moyassar	are supposed to be able to: 1-Identify the chemical structure. 2-Memorize the sources. 3-Describe the function. 4-Describe the causes of its deficiency. 5-Relate the deficiency and excess with clinical effect.
	Vitamins C, E and K	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Identify the chemical structure. 2-Memorize the sources. 3-Describe the function. 4-Describe the causes of its deficiency. 5-Relate the deficiency with clinical effect.
Chapter: Biochemistry of Endocrine System				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
3rd	Introduction	1	Dr. Khalis Muhammad	At the end of the study, the students are supposed to be able to: 1-Define hormones. 2-Classify hormones. 3-Differentiate between group I and II hormones. 4-Describe target cells. 5-Describe hormone receptors.
	Adrenocortical hormones	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Identify the control of secretion. 2- Describe the biochemical synthesis. 3- Discuss their function. 4-Describe transport of hormones. 5- Demonstrate their metabolism.
4th	Testicular hormones	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Identify the control of secretion. 2- Describe the biochemical synthesis. 3- Discuss their function. 4-Describe transport of hormones. 5- Demonstrate their metabolism.
	Ovarian hormones	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Uderstand the control of secretion. 2- Describe the biochemical synthesis. 3- Discuss their function. 4-Describe transport of hormones. 5- Demonstrate their metabolism.

				6-Identify the peripheral aromatization.
	Catecholamines	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Identify the control of secretion. 2- Describe the biochemical synthesis. 3- Identify the function. 4-Describe transport of hormones. 5- Describe the metabolism. 6-Compare between catecholamines produced by adrenal medulla and extramedullary tissues.
5th	Thyroid hormones	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 2-Identify the control of secretion. 2- Describe the biochemical synthesis. 3- Discuss their function. 4-Describe transport of hormones. 5- Demonstrate their metabolism. 6-Explain the peripheral conversion of T4.
	Hypothalamic and pituitary hormones	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Identify these hormones. and their classification. 2-Identify the control of secretion. 3- Identify the function of these hormones.
6th	Pancreatic hormones	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Describe the chemical structure of these hormones. 2-Uderstand the control of secretion. 3- Describe the biochemical synthesis. 4- Identify the function. 5-Describe transport of hormones. 6- Demonstrate their metabolism.
	Parathyroid hormones	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- Describe the chemical structure of parathyroid hormone. 2-Describe the control of secretion of parathyroid hormone. 3-Describe the biochemical synthesis of parathyroid hormones. 4-Identify the function of parathyroid hormones. 5-Describe the metabolism of

				parathyroid hormones.
Chapter: Protein Metabolism				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
7th	Introduction.	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Define proteins. 2-Define amino acids. 3- Identify the chemical structure of amino acids 4- Classify amino acids. 5- Describe the function of proteins.
	In vivo synthesis of nutritionally nonessential amino acids	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Describe the biochemical pathways. 2- Explain the presence of essential amino acids. 3-Relate the subject with clinical problems.
	Formation of peptides	1	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Describe the order of protein classification. 2-Memorize the pathology of altered protein conformation. 3-Enumerate the biological function of protein. 4-Describe digestion and absorption of protein.
8th	Catabolism of amino acid nitrogen	2	Dr. Muhammad Abd-Alghafoor	At the end of the study, the students are supposed to be able to: 1-Describe the biochemical stages of urea biosynthesis. 2-Explain the formation of urea. 3-Identify the metabolic disorders of urea cycle.
	Catabolism of carbon skeleton of amino acids	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1-Enumerate the types of catabolism of carbon skeleton. 2-Demonstrate the inborn error of metabolism. 3-Compare the different types of aminoaciduria.
9th	Amino acids form pyruvate or intermediates of krebs	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- Describe the chemical pathways of

	cycle			the subject. 2-Relate the subject with the inborn error of metabolism.
	Amino acids form acetyl-CoA	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to: 1- Describe the chemical pathways of the subject. 2-Relate the subject with the inborn error of metabolism.
	Conversion of amino acids to specialized products	1	Dr. Nagham Faris	At the end of the study, the students are supposed to be able to describe the pathway and the importance of conversion of amino acids to specialized products.
Chapter: Hemoprotein.				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
10th	Biochemistry of hemoglobin and myoglobin.	2	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to compare the structure and function between hemoglobin and myoglobin.
	Hemoglobinopathy	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to relate the biochemical defects of hemoglobin with clinical diseases.
Chapter: Porphyrin				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
11th	Heme biosynthesis	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to illustrate the heme biosynthesis pathway.
	Porphyria	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Define porphyria. 2-Classify porphyria. 3-Identify clinical features, diagnosis, and treatment oof porphyria. 4-Relate the biochemical aspect of porphyria with its clinical aspect.
	Heme catabolism	1	Dr. Osama Moyassar	At the end of the study, the students are supposed to be able to: 1-Identify the transport and metabolism of bilirubin. 2-Define hyperbilirubinemia. 3- Classify hyperbilirubinemia.
Chapter: Tumor Markers				
Week	**Lecture Titles**	**No. of**	**Faculty**	**Instructional objectives**

		lectures	Member	
12th	Introduction	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1-Define tumor markers. 2-Identify the types of tumor markers.
	Role of tumor markers in medicine.	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to 1-Explain the role of tumor markers in health and disease. 2-Identify the characteristics of ideal tumor markers. 3-Identify the ideal ways to measure tumor markers.
Chapter: Miscellaneous				
Week	**Lecture Titles**	**No. of lectures**	**Faculty Member**	**Instructional objectives**
13th	Metabolic response to trauma	1	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to demonstrate the hemodynamic and neuroendocrine changes that occur during trauma.
	Free radicals and antioxidants	2	Dr. Bassam Adwar	At the end of the study, the students are supposed to be able to: 1- Define free radicals and antioxidants. 2- Explain the damaging effect of free radicals. 3-Identify the types and the biochemical function of antioxidant. 4-Compare between different sources of antioxidants.

7.Instructional objectives of the laboratory sessions:

1st Semester			
Week	**Session Title** **(Each one session)**	**Faculty Member**	**Instructional Objectives**
1st	Introduction SI Units	Dr. Khalis Muhammad	At the end, the students should be able to: 1- know the rules of the work in the biochemistry lab in following practical lessons. 2- Memorize the SI Units which studied in the 1st class.
2nd	Types of specimens	Dr. Khalis Muhammad	At the end, the students should be able to describe the types of specimens and organize the ideal ways for the collection of specimens.
3rd	Urine Examination (1)	Mr. Manhal Jalal	At the end, the students should be able to examine and describe the normal urine sample.

4th	Urine Examination (2)	Mr. Manhal Jalal	At the end, the students should be able to examine and describe the abnormal urine sample and relate the result with diseases.
5th	Spectrophotometer	Dr. Osama Moyassar	At the end, the students should be able to use and describe the content and the principle of spectrophotometer.
6th	Calibration Curve	Dr. Nagham Faris	At the end, the students should be able to do and use the calibration curve.
7th	Serum Albumin	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum albumin concertation and interpret the results.
8th	Blood Glucose	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure blood glucose concertation and interpret the results.
9th	Serum Calcium	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum calcium concertation and interpret the results.
10th	Serum Phosphorus	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum phosphorous concertation and interpret the results.
11th	Serum Uric acid	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum uric acid concertation and interpret the results.
12th	Revision	Academic Staff of Biochemistry	To remind students the skills learned previously in the first semester.
13th	Practical examination	Academic Staff of Biochemistry	To assess the students about the skills they acquired in their practical lessons in the first semester.
14th	Theoretical examination	Academic Staff of Biochemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the first semester.
2nd Semester			
Week	**Session Title (Each one session)**	**Faculty Member**	**Instructional Objectives**
1st	Serum Protein Electrophoresis	Dr. Bassam Adwar	At the end, the students should be able to perform and interpret serum protein electrophoresis results.
2nd	Lipid Profile (1)	Dr. Bassam Adwar	At the end, the students should be able to measure serum cholesterol and triglycerides concertation and interpret the results.
3rd	Lipid Profile (2)	Dr. Bassam Adwar	At the end, the students should be able to: 1-Measure serum HDLC- concertation and interpret the results. 2-Design lipid profile report and interpret the results of all parameters.
4th	P.C.R.	Dr. Muhammad Abd-Alghafoor	At the end, the students should be able to perform and interpret P.C.R. results.
5th	Serum Urea	Dr. Khalis Muhammad	At the end, the students should be able to measure serum urea concentration and interpret the results.
6th	Serum Creatinine	Dr. Khalis Muhammad	At the end, the students should be able to measure serum creatinine concentration and interpret the results.
7th	Serum	Dr. Nagham Faris	At the end, the students should be able to understand the

	Transaminases		applications of liver function test in diagnosis of diseases and can measure serum ALT activity and interpret the results.
8th	Serum Alkaline Phosphatase	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum ALP activity and interpret the results.
9th	Serum Bilirubin	Ms. Ansam Abd-Alghafoor	At the end, the students should be able to measure serum bilirubin profile and interpret the results.
10th	Revision	Academic Staff of Biochemistry	To remind students the skills learned previously in the second semester.
11th	Practical examination	Academic Staff of Biochemistry	To assess the students about the skills they acquired in their practical lessons in the second semester.
12th	Theoretical Examination	Academic Staff of Biochemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the second semester.
13th	Final practical examination	Academic Staff of Biochemistry	To assess the students about the skills they acquired in their practical lessons in the first and second semesters.
14th	Fin al theoretical examination	Academic Staff of Biochemistry	To assess the students about the theoretical information and the skills of analyzing the results that they acquired in their practical lessons in the first and second semesters.

8.Tables of the Course

الساعة / اليوم	٨:٣٠-٩:٣٠	٩:٣٠-١٠:٣٠	١٠:٣٠-١١:٣٠	١١:٣٠-١٢:٣٠	١٢:٣٠-١:٣٠	١:٣٠-٢:٣٠	٢:٣٠-٣:٣٠p
الاحد	كيمياء حياتيه ثاني نظري بالعملي (A)	كيمياء حياتية ثاني نظري (A)	كيمياء حياتية ثاني نظري (A)	كيمياء حياتية ثاني نظري (B)	كيمياء حياتية ثاني نظري (B)	كيمياء حياتيه ثاني نظري بالعملي (B)	
الاثنين					TBL	TBL	
الثلاثاء		كيمياء حياتية ثاني نظري(B)	كيمياء حياتية (A)ثاني نظري				
الاربعاء	كيمياء حياتية ثاني عملي ٢	كيمياء حياتية ثاني عملي ٣	كيمياء حياتية ثاني عملي ٤	كيمياء حياتية ثاني عملي ١			
الخميس	كيمياء حياتية ثاني عملي ٦	كيمياء حياتية ثاني عملي ٧	كيمياء حياتية ثاني عملي ٨	كيمياء حياتية ثاني عملي ٥			

9.Learning Resources

I- Textbooks

Harper's illustrated biochemistry

Authors:

Rodwell VW
Bender DA
Botham KM
Kennelly PJ

Weil PA
Edition Number: 31st
Year of publication: 2018
Publishing Company: Mc Graw Hill Education / New York
Number of Pages: 2023

- It was chosen for students because it is a systematic course and includes the main topics that students need , in addition to containing images that help the student to understand the material.

II- Assistant Books

Title	Authors	Edition Number
Lippincott's Illustrated Reviews Biochemistry	- Ferrier DR	6th edition
Tietz Textbook of Clinical Chemistry and Molecular Diagnostics	-Rifai N - Horvath AR - Wittwer C	6th edition

III -Assistant Links:

https://www.news-medical.net/health/The-Urea-Cycle-Step-by-Step.asp

https://en.wikipedia.org/wiki/Hormone

https://www.verywellhealth.com/lynne-eldridge-md-2248383

https://classroom.google.com/u/0/c/NjIyNDU4MDk3ODEz

https://classroom.google.com/u/0/c/NjMzNDcyNTI3NDQx

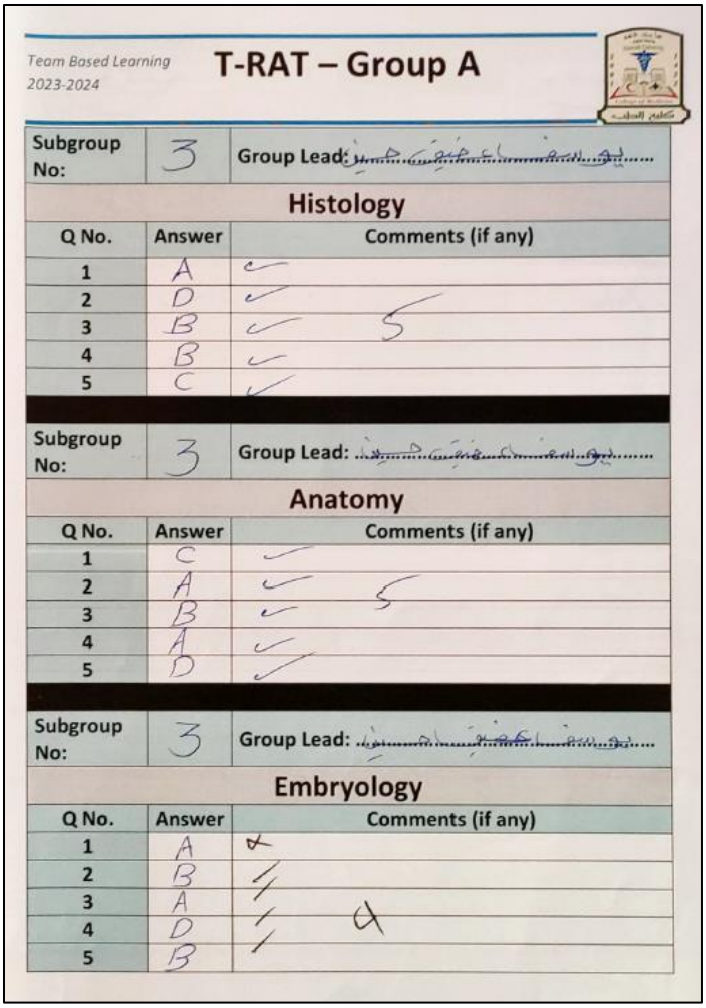
10.Additional Information

Dr. Bassam Adwar Hanna (Email:bassam.hanna@uoninevah.edu.iq)

Dr. Muhammad Abd- Alghafoor (Email: muhammad.abdulgafoor@uoninevah.edu.iq)

11.Appendix

ورقة حضور لامتحان checklist



Team Based Learning
2023-2024

T-RAT – Group A

Subgroup No:	3	Group Lead: [redacted]

Histology

Q No.	Answer	Comments (if any)
1	A	
2	D	
3	B	
4	B	
5	C	

Subgroup No:	3	Group Lead: [redacted]

Anatomy

Q No.	Answer	Comments (if any)
1	C	
2	A	
3	B	
4	A	
5	D	

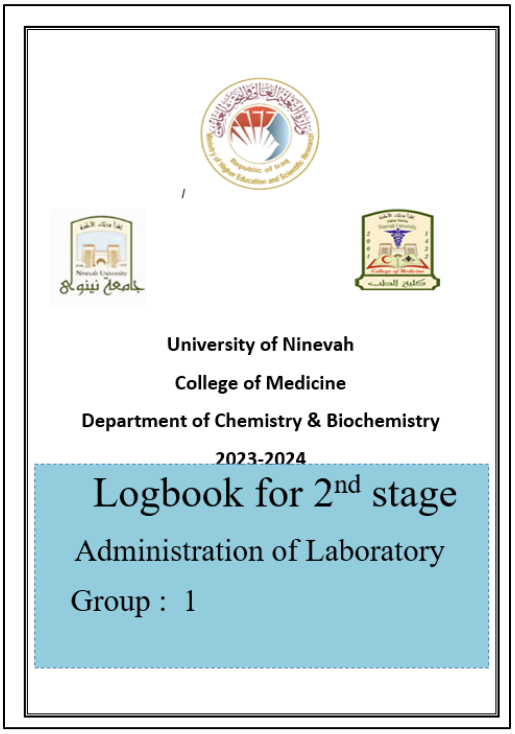
Subgroup No:	3	Group Lead: [redacted]

Embryology

Q No.	Answer	Comments (if any)
1	A	
2	B	
3	A	
4	D	
5	B	

ت	الاسماء	الملاحظات	التوقيع
1	يوسف خضر حسين	مسؤول المجموعة	
2	عبد القادر محمد		
3	نبأ اياد محمد		
4	رحمة نواف حامد		
5	فرح رياض عامر		
6	نوفا يعقوب يوسف		
7	فاطمة عبد المعين شبيب		
8	رولا رمضان احمد		
9			
10			
11			
12			

First page of log book for staff.



University of Ninevah

College of Medicine

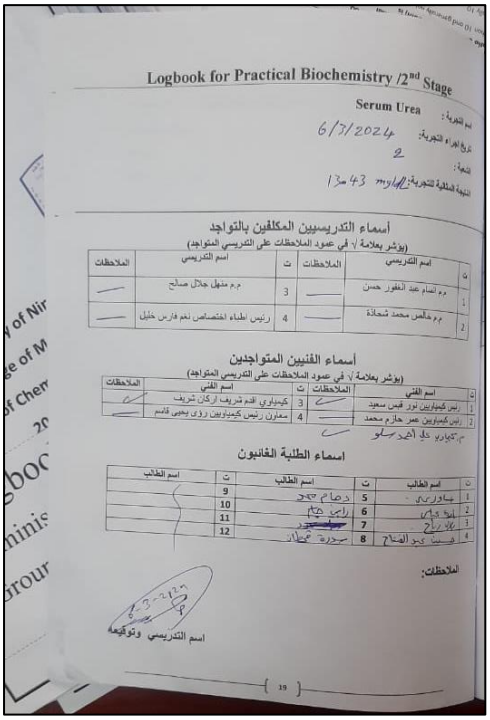
Department of Chemistry & Biochemistry

2023-2024

Logbook for 2nd stage

Administration of Laboratory

Group : 1



Logbook for Practical Biochemistry /2nd Stage

Serum Urea

6/1/2024

2

13:43 myself

أسماء التدريسيين المكلفين بالتواجد

(يوشر بعلامة √ في عمود الملاحظات على التدريسي المتواجد)

ت	اسم التدريسي	الملاحظات	ت	اسم التدريسي	الملاحظات
1	م.م انعام عبد الغفور حسن		3	م.م منهل جلال صالح	
2	م.م هالمس محمد شحاذة		4	رئيس اطباء اختصاص نعم فارس خليل	

أسماء الفنيين المتواجدين

(يوشر بعلامة √ في عمود الملاحظات على التدريسي المتواجد)

ت	اسم الفني	الملاحظات	ت	اسم الفني	الملاحظات
1	زينب كيمياوين نور قيس سعيد		3	كيمياوي اقدم تدريب اركان شريف	
2	زينب كيمياوين عمر حازم محمد		4	معاون رئيس كيمياويون وزان يحيى قاسم	

اسماء الطلبة الغائبون

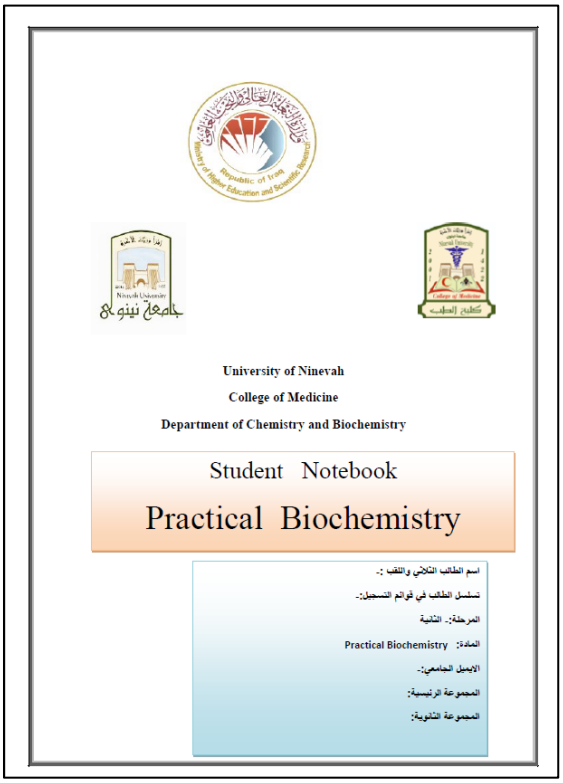
ت	اسم الطالب	ت	اسم الطالب
5		9	
6		10	
7		11	
8		12	

الملاحظات:

اسم التدريسي وتوقيعه

19

First page of notebook for students



University of Ninevah

College of Medicine

Department of Chemistry and Biochemistry

Student Notebook

Practical Biochemistry

اسم الطالب الثلاثي واللقب :-

تسلسل الطالب في قوائم التسجيل:-

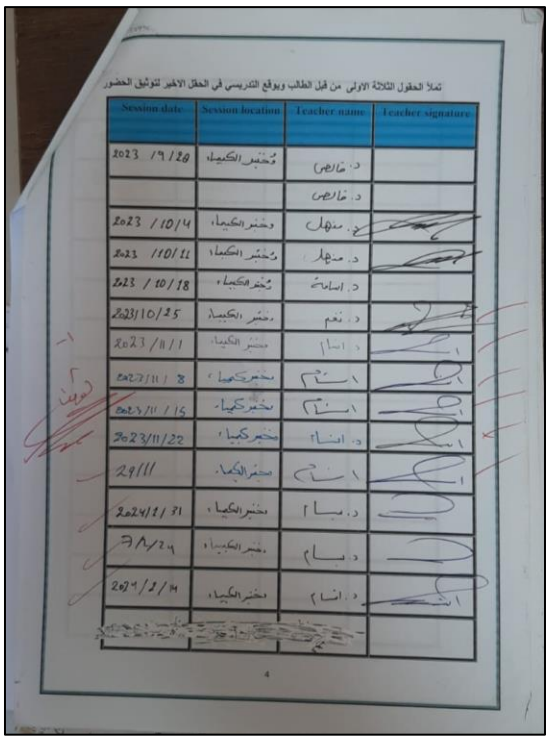
المرحلة:- الثانية

المادة: Practical Biochemistry

الايميل الجامعي:-

المجموعة الرئيسية:

المجموعة الثانوية:



تملأ الحقول الثلاثة الاولى من قبل الطالب ويوقع التدريسي في الحقل الاخير لتوثيق الحضور

Session date	Session location	Teacher name	Teacher signature
2023 /9/28	مختبر الكيمياء	د. هارس	
		د. هارس	
2023 /10/4	مختبر الكيمياء	د. منهل	
2023 /10/11	مختبر الكيمياء	د. منهل	
2023 / 10/18	مختبر الكيمياء	د. اسامة	
2023/10/25	مختبر الكيمياء	د. نعم	
2023 /11/1	مختبر الكيمياء	د. اسا	
2023/11/ 8	مختبر كيمياء	د. نعم	
2023/11 /15	مختبر كيمياء	د. نعم	
2023/11/22	مختبر كيمياء	د. انسا	
29/11	مختبر الكيمياء	د. نعم	
2024/1/ 31	مختبر الكيمياء	د. يسار	
31/1/24	مختبر الكيمياء	د. يسار	
2024/2/14	مختبر الكيمياء	د. انسا	

College of medicine _ Ninevah University

Third Year Curriculum

منهاج المرحلة الثالثة

المرحلة الثالثة								
	المادة	The Subject	النظري	العملي	السريري	المناقشة	عدد الوحدات	كود المادة
1	الطفيليات	Parasitology	60	60		15	6	314
2	الامراض	Pathology	120	120		30	12	315
3	الاحياء المجهرية	Microbiology	90	60			8	316
4	الادوية	Pharmacology	90	60		30	8	317
5	الجراحة	Suregery	30				2	318
6	طب المجتمع	Community Medicine	30	30			3	319
7	الطب الباطني	Internal Medicine	45		60		5	320
		المجموع	465	330	60	75	44	

2023_2024

Parasitology for the third year

1.General Information:

- **Subject**: Parasitology
- **Code**: (3 14)
- **Credit hours**: : 6 units(60 hours theory+ 60 hours practical+15 hours discussion).
- **Course Language**: English.

2.Syllabus:

- Types of parasites and hosts.
- Intestinal protozoa .
- Ciliated protozoa .
- Haemo-flagellates .
- Tissue flagellates sporozoa.
- Intestinal flagellates .
- Helminthes nematodes .
- Trematodes .
- Hookworm .
- Cestodes .
- Tapeworm .
- Skin infections and allergy causing by insects.

3.Learning Objective:

Knowledge

- Prepare a doctor with knowledge and expertise in medical microbiology (parasites) as well as immunity so that he can diagnose them through clinical signs and laboratory tests.
- Introducing the student to ways to prevent infection with these pathogenic organisms and explaining the diseases and epidemiology they cause and the means of control available to limit their spread.
- Providing him with information related to dangerous microorganisms that spread from time to time and cause human deaths.
- Introducing the medical student to the various parasites and the places and importance of their natural presence in the human body.
- Introducing the student to diseases that originate from animals and that are transmitted to humans, causing critical conditions, and knowing the methods of their transmission to limit human infection with them.

Skills

- Familiarizing the student with traditional laboratory methods in addition to modern diagnostic techniques and means used globally.
- Acquiring laboratory work skills.
- Learn how to deal with coworkers in the laboratory.
- Writing reports and interpreting the results.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. **Outcomes for Educational Program**

Knowledge

- the Graduates becomes familiar with parasitology and uses it for diagnosis and treatment.
- understanding the optimal use of antibiotics to prevent their misuse.

Skills

- Graduates will accurately diagnose and develop management plans for a variety of diseases through clinical signs and laboratory tests.

Attitudes

- Ethical Practice: Graduates will consistently adhere to ethical principles , Respect patients and Maintaining patients' secrets.
- Accuracy and honesty in work.
- Not presenting the material aspect to the human aspect.
- Continuous Improvement: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in parasitology

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: two hours per week (first semester)
- Weekly Hours: two hours per week (second semester)
- Total: 60 hours per academic year

For the practical part:

- Weekly----
- Weekly…..
- Total : 30

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: : microbiology laboratory

- **Format:**

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching

-For the practical part.

- Lectures and Seminars.
- Team-Based Learning (TBL).

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, …ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-Components of Assessment:

- Written Exams (65% of total grade)
- practical exam (25% of total grade)
- daily exams , Logbook and Research Project and Presentation (10% of total grade)

-Detailed Breakdown

- **Written Exams (65%)**:
  - Midterm Exam: 20% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
  - End term Exam: 45% (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)
- **practical exam (25%):**
- mid-year practical exam 10% .
- Final practical exam 15% .
- **daily exams , Logbook and Research Project and Presentation** (10% of total grade)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations.

Blueprints of final exam / 1st trial

	Unit LOs	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Cognitive Skill: Remembering(direct questiond)	Cognitive Skill: Understanding(indirect questions)	Cognitive Skill: Appl./ Problem solving	total: MCQ
1	Introduction to Parasitology.	3	3	9	0.0681818	6.8	6	1	4	1	
2	Intestinal protozoa (Pathogenic and non- pathogenic amoebae).	3	2	6	0.0454545	4.5	4	1	2	1	
3	Class ciliated protozoa (*Balantidium coli*).	3	3	9	0.0681818	6.8	6	1	4	1	
4		1	1	1	0.0075758	0.8	1	1	0	0	
5	Haemo-flagellates: Leishmania spp. (*L. braceliensis*, *L. Mexicans*).	1	1	1	0.0075758	0.8					
6		1	1	1	0.0075758	0.8	1	0	1	0	
7	Tissue flagellates;	3	3	9	0.0681818	6.8	6	0	6	0	
8	Sporozoa: Plasmodium spp. (*P. malaria P. falciparum*).	3	3	9	0.0681818	6.8	6	0	5	1	
9	Sporozoa: Plasmodium spp. (*P. vivax P. ovale*)	1	1	1	0.0075758	0.8	1	0	1	0	
10		1	1	1	0.0075758	0.8					
11	Intestinal flagellates (*Giardia lamblia*).	3	3	9	0.0681818	6.8	6	0	6	0	68
12		3	3	9	0.0681818	6.8	6	0	6	0	
13	Sexually transmitted infections (*Trichomonas vaginalis*).	1	1	1	0.0075758	0.8	1	0	1	0	
14		2	2	4	0.030303	3.0	3	0	3	0	
15	Cryptosporidium spp.	2	2	4	0.030303	3.0	3	0	3	0	
16	Isospora belli	2	2	4	0.030303	3.0	3	0	3	0	
17		3	3	9	0.0681818	6.8	6	1	5	0	
18		2	2	4	0.030303	3.0	3	0	3	0	
19		1	2	2	0.0151515	1.5	1	0	1	0	
20	*Toxoplasma gondii*	1	1	1	0.0075758	0.8	1	0	1	0	
21		2	2	4	0.030303	3.0	3	0	3	0	
22	Helminthes: Introduction &Classification. Nematods: *Ascaris lumbricoids*.	2	1	2	0.0151515	1.5	1	0	0	1	
23	*Entrobius vermicularis* and *Trichuris trichura*.	2	1	2	0.0151515	1.5	1	1	0	0	
24	Cestodes: Hydatid disease Echinococcus granulosus	2	1	2	0.0151515	1.5	1	1	0	0	
25		2	2	4	0.030303	3.0	3	1	2	0	
26	Hookworm: *Anchylostoma duod*	2	2	4	0.030303	3.0	3	1	2	0	
27	Laboratory methods used to detect parasitic infections	2	1	2	0.0151515	1.5	3	0	2	1	
28		2	2	4	0.030303	3.0					
29	Medications used to treat parasitic diseases.	1	1	1	0.0075758	0.8	3	0	3	0	
30		1	1	1	0.0075758	0.8					
31	Nematodes (Roundworm): *Strongyloides stercoralis*.	1	1	1	0.0075758	0.8	2	0	2	0	18
32		2	1	2	0.0151515	1.5					
33	Trematodes: (Blood flukes)	2	1	2	0.0151515	1.5					
34	*Schistosoma Spp.*	2	2	4	0.030303	3.0	1	0	1	0	
35	Intestinal flukes *Heterophyes heterophyes*.	2	1	2	0.0151515	1.5	1	0	1	0	
36		1	1	1	0.0075758	0.8					
42	Tapeworm: *Taenia saginata*.	2	1	2	0.0151515	1.5	2	0	1	1	
43		1	1	1	0.0075758	0.8					
44	Nematodes (Roundworm): Strongyloides stercoralis	2	1	2	0.0151515	1.5	3	0	2	1	8
45		2	1	2	0.0151515	1.5					
46		2	1	2	0.0151515	1.5	2	0	2	0	
55	skin infections and allergy	2	1	2	0.0151515	1.5	1	0	1	0	
57	Insects transmitting parasites An	1	1	1	0.0075758	0.8	1	0	1	0	
59	skin infections and allergy causing by insects Lice.	1	1	1	0.0075758	0.8	2	0	1	1	6
60		1	2	2	0.0151515	1.5					
61		2	1	2	0.0151515	1.5	3	1	2	0	
62		1	1	1	0.0075758	0.8					
	total	68	61	132	1	100	100	10	81	9	100

6.Instructional Objective of the lectures:

For Example:

Lecture Title	No. of Lecture	Faculty member	Instructional Objectives
Introduction to Parasitology.	1	Dr. Wesam	- Discuss the various types of parasites and hosts. Explain the relationship between a parasite and the host and their effects. Discuss in detail the classification of medically important parasites. Explain the difference between the Cestodes, Nematodes, Trematodes and Protozoa.
Intestinal protozoa (Pathogenic and non-pathogenic amoebae).	2	Dr. Wesam	Identify the most common protozoans that can cause infections of the GI tract; Compare the major characteristics of specific protozoan.
Class ciliated protozoa (*Balantidium coli*).	1	Dr. Wesam	A large ciliated protozoan, is the only ciliate known to be capable of infecting humans. Study general characteristic life cycle pathogenesis and clinical symptome and identification.
Haemo-flagellates: Leishmania spp. (*L. donovani*, *L. tropicans*).	1	Dr. Wesam	Study general characteristic, the life cycle and distinguish between cutaneous or visceral leishmaniasis. Pathogenesis and clinical symptoms and identification.
Haemo-flagellates: Leishmania spp. (*L. brazeliensis*, *L. Mexicans*).	1	Dr. Wesam	Study general characteristic, the life cycle and distinguish between cutaneous or visceral leishmaniasis. Pathogenesis and clinical symptoms and identification.
Tissue flagellates; Trypanosoma spp.	2	Dr. Wesam	Outline the life cycle, Study general characteristic life cycle pathogenesis and clinical symptoms and identification.
Sporozoa: Plasmodium spp. (*P. malaria P. falciparum*).	2	Dr. Wesam	Learn more about the malaria life cycle in humans, identification treatment and prevention and control.
Sporozoa: Plasmodium spp. (*P. vivax P. ovale*).	1	Dr. Wesam	Learn more about the malaria life cycle in humans, identification treatment and prevention and control.

Intestinal flagellates (*Giardia lamblia*).	1	Dr. Wesam	Mode of transmission by contaminated sources such as soil, food, and water. Giardiasis is a common worldwide cause of gastroenteritis. The structure and life cycle of Giardia lamblia allow for survival in harsh environments and resistance against numerous types of disinfectants.
Sexually transmitted infections (*Trichomonas vaginalis*)	1	Dr. Wesam	Is one of the most common agents of sexually transmitted disease The aim of this study was to investigate the risk indicators for trichomoniasis in women attending for routine gynecological **examination.**
Cryptosporidium spp. & *Isospora belli*	2	Dr. Wesam	Study the life cycle of the parasite. mode of transmission infective and diagnostic stage and treatment
Toxoplasma gondii	2	Dr. Wesam	1. Describe the morphology forms of bradyzoites, tachyzoites, & oocyst. 2. Briefly describe the life cycle of Toxoplasma gondii. 3.Identify the laboratory diagnosis of Toxoplasma gondii 4-List the modes of transmission, prevention and control.
Helminthes: Introduction &Classification. Nematods: *Ascaris lumbricoids*.	1	Dr. Abdulrahman	Classification of the worm according to the structure.
Entrobius vermicularis and *Trichuris trichura*.	1	Dr. Abdulrahman	Describe the epidemiology of *Entrobius vermicularis* and Trichuriasis infections. Recall the presentation of a patient with trichuriasis infection.
Nematodes (Roundworm): *Strongyloides stercoralis*.	1	Dr. Abdulrahman	Etiology, pathophysiology, symptoms, signs, diagnosis & prognosis.
Trematodes: (Blood flukes) *Schistosoma Spp.*	1	Dr. Abdulrahman	Describe the Flattened dorsoventrally (leaf like) except blood flukes cylinder shape. Unsegmented. Schistosoma mansoni, lives in the inferior mesenteric venules of large intestine, and cause intestinal
Intestinal flukes *Heterophyes*	1	Dr.	Study the life cycle of the parasite. mode of transmission infective and diagnostic stage and

heterophyes.		Abdulrahman	treatment
Liver flukes *Fasciola hepatica*.	1	Dr. Abdulrahman	Describe the morphology of Trematodes. Briefly describe the life cycle of Trematodes. Identify the laboratory diagnosis of Trematodes
Hookworm: *Anchylostoma duodenale Necator americanus* Larva migrans	1	Dr. Abdulrahman	Hookworm infection is caused by the blood-feeding nematode parasites of the species Ancylostoma duodenale and Necator americanus. Study the life cycle of the parasite. mode of transmission infective and diagnostic stage and treatment
Laboratory methods used to detect parasitic infections	1	Dr. Abdulrahman	Laboratory Methods for Diagnosis of Parasitic Infections: Overview ... The detailed technical procedures should be used in conjunction ... consider the following general objectives for the methods provided
Cestodes: Hydatid disease *Echinococcus granulosus*.	1	Mr.sinan	Objectives: Describe the pathophysiology of Echinococcus granulosus infection. Outline the ultrasound classification used in the evaluation of Echinococcus granulosus infection.
Medications used to treat parasitic diseases.	1	Dr. Abdulrahman	Study the drug of choice for the treatment of the all types of parasite.
Tapeworm: *Taenia saginata*.	1	Mr.sinan	lifecycle relies on a vertebrate intermediate host in which the infective larvae ... the control of Taenia spp. relies on stringent meat inspection, treatment control and prevention
Tapeworm: *Taenia solium*.	1	Mr.sinan	lifecycle relies on a vertebrate intermediate host in which the infective larvae ... the control of Taenia spp. relies on stringent meat inspection, treatment control and prevention
Nematodes (Roundworm): *Strongyloides stercoralis*.	1	Dr. Abdulrahman	study the life cycle the infective stage and diagnostic stage treatment and control
Clinical presentations of parasitic infections.	2	Dr. Abdulrahman	Recognize the diagnostic stage of the infection under the microscope and to manage the infected patient after completing the questions at the end
Immunomodulation and helminthic infections.	1	Dr. Abdulrahman	The immunomodulatory effects of helminths are Helminth infection can even have beneficial outcomes

skin infections and allergy causing by insects (*Sarcoptes scabiei*).	1	Dr. Abdulrahman	Education about scabies and its presentations is ... to treatment success and optimal outcome
skin infections and allergy causing by insects Lice.	1	Dr. Abdulrahman	Lice are one of those insects closely associated with man. They are problems of entering into the skin of humans cause inflammation, and pain, and ... eye diseases, and even allergies and death due to toxic stings.
Insects transmitting parasites Anopheles Sand fly.	1	Dr. Abdulrahman	Sand flies are insect vectors of several diseases including leishmaniases. The objective of this study was to assess simultaneously the ... Sand flies (Diptera: Psychodidae).

7.Instructional objectives of the practical lectures:

No.	Lecture Title	Faculty member	Instructional Objectives
1.	Introduction to medical Parasitology Lab.	Farah	we learn to recognize, isolate, and identify those microorganisms that are important in causing human infections
2.	Intestinal protozoa (Pathogenic and non-pathogenic amoebae).	Noor	Describe the general characteristics of the Intestinal protozoa
3.	Intestinal flagellates: Giardia lamblia	sinan	Describe the general characteristics of the *Giardia lamblia*
4.	Urogenital flagellates: *Trichomonas vaginalis*	Dalya	Describe the general characteristics of the *Trichomonas vaginalis* .
5.	Intestinal Ciliata (*Balantidium coli*).	Noor	Describe the general characteristics of the *Balantidium coli* .
6.	Tissue flagellates: Leshmania spp. (*L. donovani*, *L. tropicans*).	Farah	Describe the general characteristics of the *L. donovani, L. tropicans*
7.	Tissue flagellates: Leshmania spp. (*L. brazeliensisi)*	Farah	Describe the general characteristics of the *L. brazeliensisi*
8.	Blood flagellates; Trypanosoma spp.	Noor	Describe the general characteristics of the *Trypanosoma spp*.
9.	Apicomplexa, Plasmodium spp. (*P. vivax P. ovale*).	sinan	Describe the general characteristics of the *P. vivax P. ovale*
10.	Apicomplexa, Plasmodium spp. (*P. malaria P. falciparum*).	sinan	Describe the general characteristics of the *P. malaria P. falciparum*
11.	Cryptosporidium spp.	Farah	Describe the general characteristics of the *Cryptosporidium spp.*
12.	*Toxoplasma gondii*	Dalya	Describe the general characteristics of the *Toxoplasma gondii*
13.	Helminthes: Nematods: *Entrobius vermicularis*	Dalya	Describe the general characteristics of the *Entrobius vermicularis* .
14.	*Ascaris lumbricoides.*	sinan	Describe the general characteristics of the

			Ascaris lumbricoides.
15.	*Tricuuris trichura.*	Noor	Describe the general characteristics of the *Tricuuris trichura.*
16.	*Nematodes: Strongyloides stercoralis*.	Farah	Describe the general characteristics of the *Strongyloides stercoralis.*
17.	*Schistosoma Spp.*	Dalya	Describe the general characteristics of the *Schistosoma Spp.*
18.	*Heterophyes heterophyes.*	Farah	Describe the general characteristics of the *Heterophyes heterophyes.*
19.	*Fasciola hepatica*.	Noor	Describe the general characteristics of the *Fasciola hepatica*.
20.	*Anchylostoma duodenale.*	Noor	Describe the general characteristics of the *Anchylostoma duodenale.*
21.	*Necator americanus.*	Farah	Describe the general characteristics of the *Necator americanus.*
22.	*Echinococcus granulosus.*	Dalya	Describe the general characteristics of the *Echinococcus granulosus.*
23.	*Taenia saginata*.	sinan	Describe the general characteristics of the *Taenia saginata*.
24.	*Taenia solium*.	sinan	Describe the general characteristics of the *Taenia solium*..
25.	Skin test Preparation	Farah	Describe the general characteristics of the genus Bacillus.
26.	*Sarcoptes scabiei.*	Farah	Describe the general characteristics of the *Sarcoptes scabiei.*
27.	insects Lice.	Noor	Describe the general characteristics of the insects Lice.
28.	Anopheles Sand fly.	Noor	Describe the general characteristics of the Anopheles Sand fly.

8.Tables of the Course

Table of theoretical and practical teaching

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

اليوم / الساعة	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ – ٣.٣٠
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات B	الجزء النظري من الجانب العملي طفيليات A
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جراثيم B	الجزء النظري من الجانب العملي جراثيم A	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جراثيم عملي و	جراثيم عملي ي	جراثيم عملي د	
الاثنين	جراثيم عملي ج امراض عملي أ ادوية عملي ب	جراثيم عملي ب امراض عملي ج ادوية عملي أ	جراثيم عملي أ امراض عملي ب ادوية عملي ج	طفيليات عملي أ	طفيليات عملي ب	طفيليات عملي ج	
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جراثيم A		امراض A		طب مجتمع A	طب مجتمع عملي A	الجزء النظري من الجانب العملي ادوية B
	امراض B		جراثيم B		جراثيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	طب مجتمع عملي B	الجزء النظري من الجانب العملي ادوية A
	ادوية B		ادوية A		ادوية A	جراثيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

9.Learning Resources

For example:

Textbooks: Jawetz, Melnick, & Adelberg's Medical Microbiology, 27th Edition Copyright © 2016 by McGraw-Hill Education.

ISBN 9780-0-71-82498-9

MHID 0-07-182498-7

ISSN 1054-2744.2

Textbook of Diagnostic Microbiology) 5th Edition, Connie R. Mahon (Author), Donald C. Lehman (Author), George Manuselis (Author(

- ISBN-13: 978-0323089890
- ISBN-10: 0323089895

UpToDate

10.Additional Information

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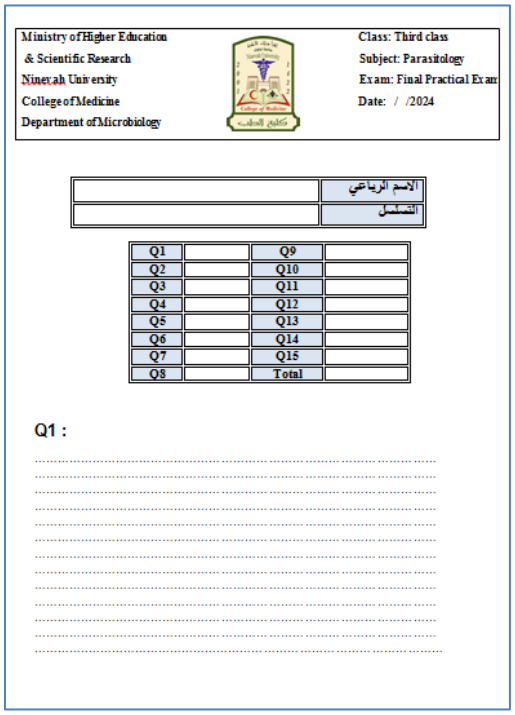
11.Appendix

Exam Paper for the practical exam in parasitology .



Ministry of Higher Education & Scientific Research
Ninevah University
College of Medicine
Department of Microbiology

Class: Third class
Subject: Parasitology
Exam: Final Practical Exam
Date: / /2024

	الاسم الرباعي
	التسلسل

Q1		Q9	
Q2		Q10	
Q3		Q11	
Q4		Q12	
Q5		Q13	
Q6		Q14	
Q7		Q15	
Q8		Total	

Q1 :

Pathology for third year

1.General Information:

- **Subject**: Pathology
- **Code**: (315)
- **Credit hours**: 12 Units (120(theoretical)+120(Practical)+30 hours discussion)
- **Course Language**: English.

2.Syllabus:

General pathology:

-Introduction, cell injury

-Inflammation and repair

-Hemodynamic

-Immunopathology

-Genetics

-Neoplasia

-Environmental diseases

Systemic pathology

-Hematology and blood diseases

-Lymphoreticular system

-Cardiovascular system

-Respiratory system

-GIT system

-Hepatobiliary system & pancreas

-Renal & urinary system

-Male genital system

-Female genital system

-Breast pathology

-Endocrine system

-CNS system

3.Learning Objective:

Knowledge:

1. Understand the basics of general and systemic pathology.
2. Acquire essential scientific knowledge to comprehend the structure and functional deviations in various body systems and organs.Understand the aetiology, pathogenesis,
3. and pathologic manifestations of common diseases.
4. Recognize basic disease patterns and their underlying mechanisms within specific organ systems.

Skills:

1. Demonstrate the ability to distinguish the first steps in the clinical development of disease and their relation to etiological factors.

2. Correlate histopathology with the clinical basis of specific organ diseases.

3. Differentiate pathological features of diseases and utilize new techniques in diagnosis.

Attitudes:

1. Develop an integrated approach to understanding pathology in the context of clinical practice.

2. Foster a systematic approach to linking histopathological findings with clinical presentations.

3. Cultivate a proactive attitude towards continuous learning and application of new diagnostic techniques in pathology.

4. Outcomes for Educational Program

Knowledge:

1. Understand and discuss the main categories of diseases that affect the body (general pathology).

2. Comprehend the basic mechanisms underlying diseases (etiology, pathogenesis, and natural history).

3. Describe the morphologic changes (gross and microscopic) resulting from disease processes in various organs.
4. Determine the fate and complications associated with specific diseases.
5. Define medical terms related to disease processes.
6. Understand and explain the pathogenesis and progression of diseases.

Skill:

1. Predict the signs and symptoms of diseases based on underlying gross and microscopic tissue changes.
2. Interpret pathology reports in a professional manner.
3. Choose the most appropriate and cost-effective pathologic diagnostic procedures.
4. Handle biopsy specimens accurately and describe lesions grossly.
5. Select and utilize the necessary techniques for sample reception and processing according to the specimen's nature.
6. Diagnose and describe the pathologic picture of disorders based on gross or microscopic morphology.

Attitude:

1. Commit to lifelong learning and stay current with medical advances.
2. Maintain a professional image in manner, dress, speech, and interpersonal relationships.
3. Respond appropriately and humanely to the seriousness of pathologic diagnoses.
4. Collaborate effectively with peers and healthcare teams.
5. Demonstrate reliability and responsibility in fulfilling professional obligations.
6. Identify and appropriately handle difficult ethical situations.
7. Foster a willingness to work through systems and accept responsibility for the health of the population

5.Course Overview

- Course composition:

It is given throughout 3rd year (both first & second semesters) and include lectures Lecture: 120 (8 units) &practical: 120 (4units) Tutorial &seminar: (30)

- **Duration**:.

- 30 weeks of teaching, average 4 lecture/ week

- **Location**:

-For the theoretical part: Lecture Halls

-For the practical part: pathology lab at the department of pathology

- **Format**:

For the theoretical part and the practical part:

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Seminars

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, home works
- **Summative Assessments**: Midterm exams, end term exams, OSPE practical exam
- **Grading System**

-*Components of Assessment:*

- Written Exams
- Objective Structured practical Examination (OSPE)
- Logbook (5% of total grade)

-*Detailed Breakdown*

- **Written Exams (60%)**:

- Midterm Exam: 20% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions
- End term Exam: 240 (Comprehensive exam covering the entire course content, includes MCQs, short essay clinical problems

❖ **Objective Structured Practical Examination (OSPE) (30%)**:

- Stations: Typically includes 10-15 stations, each assessing different clinical skills (e.g., history taking, physical examination, communication, and procedural skills). Each station is scored out of 10 marks. Total OSCE Score: Sum of scores from all stations.

❖ **Quizzes, performance and Logbook (10%)**:

- Performance: 5 % (Assessed by supervisors during the course with active participation, seminars and home work.
- Logbook:5% (Students maintain a logbook documenting practical sessions.

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment:**
- **Examples**: Assignments, quizzes, presentations,

- **Blueprints of pathology: final exam 2024 (100MCQ)/1st trial**

Subject	Remembering questions	Understanding questions	Problem solving questions

Inflammation	2	2	
Hemodynamic	2	1	
Neoplasia	3	2	
Hematology	2	2	1
Lympho-reticular system	2	1	
CVS	4	2	
Respiratory	8	2	1
GIT	11	2	1
Liver	7	4	1
Renal	9	3	1
Male genital tract	2	1	
Female genital tract	8	3	1
Breast	4	2	
Endocrine system	3	1	
TOTAL = 100	67	28	6

6.Instructional Objective of the lectures:

Lecture title	No. of Lectures	No. of Lab.s	Faculty member	Instructional objective

Introduction to pathology: Role of pathology in the diagnosis of diseases	1	1	Dr. Arwa Riyadh	At the end of the lecture the student should be able to: - define pathology, disease, pathogenesis - describe pathologic aspects of disease - understand importance of studying pathology - list causes of disease.

Cellular response to injury: • Cell injury (Etiology, mechanism & morphology. • Necrosis & apoptosis. • Pathologic calcification & pigmentation. • Cellular adaptation & aging.	5	5	Dr. Arwa Riyadh	At the end of studying these lectures, the student is supposed to be able to: -list causes of cell injury - describe major concepts of reversible and irreversible cell injury -list the different types of necrosis, examples of each & its features -discriminate between necrosis and apoptosis. - able to define steatosis, hyaline changes, calcification and hemochromatosis. -understand theories of cellular aging

Acute inflammation: • Definition, signs, components & mechanism • Chemical mediators of inflammation. • Outcomes. • Systemic effect of inflammation. • Defects in leukocyte function. Chronic inflammation: • Definition, causes, mechanism & morphology. • Granulomatous inflammation. • Morphologic patterns in inflammation. • Role of lymphatic in inflammation. • Cell Regeneration, healing & repair. Scar & keloid	6	6	Dr. Nazar Mohammad	At the end of this course the student should be able to: -Explain the salient principle of inflammation, its type and causes -Differentiated between acute and chronic inflammation -Describe mechanism of inflammatory response and its fate -Know chemical mediators, its type and role in inflammatory response -Understand granulomatous inflammation, types and causes -Know the principle of wound healing and factors affecting it

Homodynamic forces & edema: • Definition. • Pathophysiologic categories. • Hyperemia & congestion. Hemostasis & coagulation • components of hemostasis. • Thrombosis. • Embolization. • Infarction.	4	4	Dr. Shatha Thanoon	At the end of the course the student should be able to: To know the concept of hyperemia and congestion, & how to differentiated between them. Understand edema, & its pathogenesis. Describe thrombosis, risk factors and fates. Undestand the conept of embolism, its type and concequences. To know typs of Infarction Define shock, its type and pathogenesis

Infections pathology:	4	4	Dr. Radhwan Al-Jammas.	At the end of this course , the student should be able to: 1-Identify and discuss the epidemiologic aspect of infectious diseases. 2-Undestand the pathophysiology and methodology of transmission of infectious diseases. 3-Know the pathology of Tuberculosis, syphilis and leprosy. 4-Understand the difference between bacterial and viral infection. 5-Know the relation between mycoplasma, rickettsia, spirochetes with some diseases. 6-Know the defense mechanism of the body against infection.

Immunopathology:	6	4	Dr. Hadeel Tahseen	At the end of the course, the student will have to:1- know & understand the basic components of immunity, molecular mechanism & differentiate between innate & adaptive immunity. 2- learn the major causes & mechanisms of immunodeficiency 3- Define hypersensitivity & differentiate between their types. 4- Recognize the mechanism of immune tolerance & its role in autoimmunity. 5- know the mechanism of transplantation immunology. 6- Define amyloidosis & know its mechanism, types, and sequelae.

Medical genetics: • Introduction & principles. • Mendelian disorders: types & characteristics. • Cytogenetic disorders. • Multifactorial disorders. • Investigations& diagnosis of genetic disorders	4	2	Dr. Zainab Waleed	At the end, the students should be able to: -To know major types of chromosomal abnormalities and genetic mutations -Know classification of genetic disorders &hereditary diseases -To describe the different mode of inheritance and expression of human diseases with examples. - To list the important genetic tests and their indication.

Neoplasia • Neoplasia: Definition, incidence, terminology & classification. • Characteristics of benign & malignant tumors. • Dysplasia & carcinoma in situ. • Epidemiology of cancer, role of heredity. • Premalignant conditions. • Molecular basis of cancer (oncogenes & tumor suppressor genes). • Biology tumor growth. • Etiology of cancer, (Chemical, radiation & viral oncogenesis). • Clinical effects of tumors, cachexia & paranoplastic conditions. • Grading & staging of tumors. • Laboratory diagnosis of tumors.	8	10	Dr. Nazar Mohammad	At the end of this course the student should be able to: -Define neoplasm, its nomenclature and -Discriminate between benign and malignant tumor and describe the characteristic of each type. -Know the pathway of spread of malignant neoplasm -Understand precancerous lesions and dysplasia -Understand the molecular basis of cancer and targets of carcinogenesis -Describe the etiological factors involved in carcinogenesis -Describe the important clinical effects of neoplasm -Know the principle of cancer grading and staging -Describe the laboratory diagnosis of cancer

Environmental & nutritional diseases	4	4	Dr Nazar Jawhar	1. Define pollutants and List it is effects. 2. Recognize any case with CO poisoning. 3. Explain Obesity and demonstrate obesity assessment. 4. Discuss the injury by therapeutic agents. 5. Differentiate between acute and chronic alcohol consumption and their effect on different body organs. 6. Illustrate the toxic effects of heavy metals. 7. Distinguish between different physical injuries.
Hematopathology • Cellular elements of blood & bone marrow. • Stem Cell Disorders: • Classification • Aplastic anemia. • Myeloproliferative disorders. • Polycythemia. • Leukemias: • Acute leukemias. • Chronic leukemias. • Anemia: • Classification.	10	10	Dr. Sura Obay	Lecture 1: definition and classification of anemia, Iron deficiency anemia (IDA), and megaloblastic anemia: objectives the students will be able to: 1.Define anemia and classify it according

• Nutritional anemia: Iron deficiency & megaloblastic anemia. • Hemolytic anemia: Hereditary hemoglobinopathies (sickle cell anemia) & thalassemias, hereditary spherocytosis, G6PD deficiency & immune hemolytic anemia. • Bleeding Disorders: • Classification. • Investigations				to morphological and etiological characteristics . 2.Know the main causes of Iron deficiency anemia. 3.Enumerate the factors that affect iron absorption. 4.Describe signs, symptoms and hematological features of IDA. 5.Discuss the diagnosis of IDA. 6.Define megaloblastic anemia 7.Illustrate the causes of megaloblastic anemia. 8.Discuss the clinical and hematological features of megaloblastic anemia. 9.Demonstrate the sources, requirements , absorption of both vitamin B12 and folate and causes of their deficiencies. 10. Conclude the diagnostic features of megaloblatic

				anemia. Lecture 2: hemolysis and hemolytic anemia Objectives The students will be able to: 1.Distinguish between hemolysis and hemolytic anemia. 2. classify hemolytic anemia. 3.Compare between Warm and Cold AB types AIHA. 4.Discuss hemolytic disease of the newborn and its types. 5.Define mechanical anemia/ fragmentation anemia and illustrate its causes. Lecture 3:hereditary spherocytosis and G6PD deficiency. Objectives the students will be able to: 1.Illustrate the main characteristic features of hereditary

				spherocytosis, pathogenesis, and its diagnosis. 2.describe the mechanism of G6PD deficiency, its clinical presentation , hematological features, and diagnosis. Lecture 4: hemoglobinopathies, thalassemia syndrome, and sickle cell disease (SCD). Objectives The students will be able to: 1.Define hemoglobinopathies 2.Know the structure of hemoglobin 3.Enumerate the main types of thalassemia. 4.Classify thalassemia clinically and compare between types. 5.Discuss B-thalassemia major, its clinical and hematological features, diagnosis and management. 6.Define (SCD) and

				describe its pathogenesis , clinical and hematological features, and diagnosis. Lecture 5: aplastic anemia Objectives The students will be able to: 1.Define aplastic anemia and describe its pathogenesis. 2.Enumerate and discuss the types of aplastic anemia. 3.Describe the laboratory findings and diagnosis of aplastic anemia. 4.Know the treatment of thalassemia. Lecture 6: acute leukemia and chronic leukemia Objectives The students will be able to: 1.Define leukemia and its types. 2.Enumerate the risk factors of acute

				leukemia. 3.Describe pathology and pathogenesis of acute leukemia. 4.Illustrate the clinical and hematological features of acute leukemia. 5.Know FAB classification of acute leukemia. 6.Discuss CLL , its clinical and hematological features, and diagnosis. 7.Know the clinical staging of CLL. 8.Discuss CML, its clinical and laboratory features. 9.Define Philadelphia chromosome and justify its importance. Lecture 7: plasma cell dyscrasias Objectives Students will be able to: 1.Define multiple myeloma and its chracteristics.

				2.enumerate the risk factors of multiple myeloma. 3.Discuss pathogenesis of multiple myeloma. 4.Illustrate the clinical manifestations of multiple myeloma. 5. Know the Monoclonal protiens. 6.Describe hematological abnormalities of multiple myeloma. 7.List the criteria for diagnosis of multiple myeloma. Lecture 8: thrombocytopenia, vascular purpura, disorders of coagulation. Objectives Students will be able to: 1.Define thrombocytopenia. 2.compare between thrombocytopenia result from increased platelets destruction and thrombocytopenia

				caused by decreased platelet production. 3.Discuss autoimmune thrombocytopenia. 4.illustrate features of hypersplenism. 5.Enumerate diorders of blood vessels. 6.Describe the structure of factor VIII 7.Compare between haemophilia A and Von Willebrand's disease. 8.Know what is DIC and its causes.

Lymphoreticular system • Disorders of lymphoid tissues: • Reactive conditions. • Non-Hodgkin's Lymphomas. • Hodgkin's Disease • Multiple myeloma	4	4	Dr. Radhwan Al-Jammas	At the end of this lectures, the student should be able to: 1-Understand different types of non neoplastic lymphoid tissue diseases including lymphadenitis & its types. 2-Describe Hodgkin`s lymphoma and its subtypes.  3-Explain Non Hodgkin`s lymphoma, main subtypes, their pathogenesis and pathology. 4-List the neoplastic and non neoplastic disorders of the spleen. 5-Describe the most common thymic disorders including hyperplasia and thymomas.

I- Pathology of blood vessels: • Atherosclerosis. • Hypertension. • Aneurysms. • Vasculitis. • Venous & lymphatic disorders. • Vascular tumors. II- Pathology of the heart:	8	8	Dr. Ehsan Mahmood	At the end of these lectures, the students should be able to: -Discuss and compare between the pathogenesis of hypertensive vascular disease and Hypertensive Heart Diseases, their types, clinical importance and morphological changes. -Define atherosclerosis and discuss the pathogenesis, by explaining the theory of the explanation of atherosclerosis (endothelial cell dysfunction) and relate all of these to the risk factors effects. -Recognize the importance of complicated atheroma in the consequences of atherosclerosis and enumerate the main sites of its formation and exempt arteries. -Define heart failure and distinguish between the causes, pathophysiology and clinical features of left sided and right sided heart failure. -List the classification of

I- Upper Respiratory Tract: • Acute infections. • Nasal tumors. • Nasopharyngeal carcinoma. Tumors of the larynx II- Lower Respiratory Tract: • Lung collapse. • Obstructive lung diseases: Asthma, emphysema, chronic bronchitis & bronchiectasis. • Interstitial lung diseases. • Pulmonary infections: Pneumonias, lung abscess & tuberculosis. • Vascular lung diseases & embolism. • Pulmonary neoplasm: Bronchogenic carcinoma, carcinoid & mesothelioma	6	6	Dr. Arwa Riyadh	At the end of the course the student should be able to: 1.Distinguish between the most important diseases of the respiratory system 2.Describe the types of acquired atelectasis 3.Differentiate between various types of COPD 4.Demonstrate the main characteristics of different types of emphysema 5.Discuss the pathologic characteristics of chronic bronchitis 6.Verify between main histologic types of bronchogenic carcinomas

GIT pathology Oral pathology: • Inflammatory diseases. • Leukoplakia & neoplastic conditions. • Salivary gland lesions. • Oral manifestations of systemic diseases Esophageal disorders: • Congenital & common acquired conditions. • Achalasia. • Esophagitis. • Esophageal carcinoma. Gastric pathology: • Gastritis (acute & chronic). • Peptic ulcer diseases (Etiology & risk factors, morphological changes). • Gastric tumors. • Hypertrophic gastropathy. Intestinal disorders: • Congenital anomalies. • Infectious enterocolitis (Types & Pathogenesis). • Acute appendicitis. • Inflammatory towel diseases (crohn's disease & ulcerative colitis): Definition, etiology , pathogenesis & pathological changes. • Malabsorption syndrome: Definition and classification. (Celiac disease: Pathogenesis & morphological changes). • Diverticular diseases.	8	8	Dr. Radhwan Al-Jammas.	At the end of this course , the student should be able to: 1-Know Types of premalignant diseases of oral cavity. 2-Discribe types of salivary glands tumors. 3-Discuss pathogenesis and pathology of Barrett esophagus. 4-Learn about Acute and Chronic Gastritis types and pathology . 5-Discribe the pathogenesis, types and pathology of gastric tumor 6-Know types, pathology and complication of peptic ulcer. 7-Discuss the role of H. pylori in pathogenesis of peptic ulcers. 8-Know the pathophysiology and pathology of malabsorption syndromes. 9-Discribe the congenital malformations of intestine 10-Differentiate between ulcerative

Hepatobilliary system • Pathophysiology of jaundice. • Hepatic failure. • Cirrhosis: Etiology,				At the end of the course the student should be able to -List the functions of the liver and describe clinical manifestations that occur as a result of functional alterations -Relate the mechanism of bile formation and elimination to the development of cholestasis - Differentiate between intrahepatic and extrahepatic cholestasis -Discuss the pathology & clinical manifestations of cholestasis - Identify the effects of impaired liver function on body systems - Compare hepatitis A, B, C, D, and E in terms of source of infection, incubation period, acute disease manifestations, development of chronic disease, and the carrier state. -Describe the pathology of hepatitis and differentiate

Renal pathology Congenital anomalies & Cystic diseases of the kidney. Glomerular Diseases: Classification & clinical manifestations. Pathogenesis. Morphological changes. Glomerulonephritis presenting as nephritic syndrome. Nephrotic syndrome. Chronic glomeruonephritis Systemic glomerulonephritis & Diabetic Nephropathy Tubular & Interstitial Diseases: Acute tubular necrosis. Tubulointerstitia1 nephritis. Urinary tract infections. Drug-induced nephritis. .Uric acid nephropathy • Tumours of the Upper & Lower urinary systems: Renal cell carcinoma. Wilm's tumour. Transitional cell carcinoma	6	6	Dr. Zainab Waleed	At the end of the course the student should be able to describe major congenital and acquired renal disorders. Clinical Manifestations of Renal Diseases Congenital Anomalies Urinary tract infection Cystic Diseases of the Kidney Glomerular Diseases Diseases Affecting Tubules and Interstitium Urinary Tract Obstruction (Obstructive Uropathy) Tumors of the Kidney
Male genital system Penile & testicular diseases:	4	4	Dr. Radhwan Al-Jammas	At the end of this course , the student

• Inflammatory lesions. • Cryptorchidism. • Testicular neoplasia. Disorders of the prostate: • Prostatitis. • Nodular hyperplasia. • Prostatic carcinoma.				should be able to: 1-Discribe congenital anomalies of penis. 2-Differentiate between Hydrocele, Hematocele and Chylocele 3-Discribe the pathogenesis, pathology and complications of undescended testis. 4-Know the types of seminoma. 5-Discribe the pathology of non seminomatous testicular tumors. 6-Learn about the predisposing factors of benign prostatic hyperplasia. 7-Differentiate between malignant and benign prostatic hyperplasia.

Female genital system Diseases of Lower Female genital tract: • Infections of female genital tract. • Vulva1 & vaginal lesions. • Cervical intraepithelial neoplasia & carcinoma. Uterine disorders : • Dysfunctional uterine bleeding. • Adenomyosis & endometriosis. • Endometritis & endometrial polyp. • Endometrial hyperplasia. • Tumors of the uterus: Leiomyoma, endometrial carcinoma & leiomyosacoma. Ovarian & tubal disease: • Inflammatory conditions. • Functional & non-neoplastic cysts. • Ovarian tumours. Gestational disorders: • Miscarriage. • Ectopic gestation. • Toxaemia of pregnancy. • Gestational trophoblastic diseases.	6	6	Dr. Hadeel Tahseen	At the end of the course, the student will have to: 1)Know the concepts of CIN, pathogenesis, and its relation to cancer and screening programs. 2)Understand the major risk factors of cervical cancer and its morphological types. 3) Have knowledge about the pathogenesis of endometrial polyps and its clinical consequences. 4)Define endometrial hyperplasia, its risk factors, types, and clinical implications. 5) Understand the concepts of endometriosis, and adenomyosis, their pathogenesis, and clinical effects. 6) Be familiar with the pathology and clinical features of leiomyoma. 7) Recognize common gestational trophoblastic diseases. 8) Know concepts of ovarian cysts and their major types.

Pathology of Breast: Developmental disorders Inflammatory conditions: Acute mastitis, Fat necrosis & Duct ectasia Fibrocystic changes Proliferative breast disorders Benign tumours of breast Breast carcinoma Disorders of male breast	4	4	Dr. Nazar Mohammad	At the end of this course the student should be able to: -Understand various non-neoplastic mammary lesions and its relation to breast cancer -Know important risk factors of breast cancer -Describe the various morphological types of breast cancer -Know the important prognostic factors of breast cancer -Appreciate the most common diseases affecting male breast.

Endocrine system Pituitary disorders: • Hyerpituitarism and Pituitary adenomas. • Hypopituitarism. • Supracellar lesions. Pathology of the thyroid • Thyoiditis: Hashimoto's thyroiditis, • Dequervain's thyroiditis & others. • Graves' disease. Multinodular goiter. • Thyroid tumors: Adenoma, Papillary carcinoma, follicular carcinoma, medullary carcinoma & anaplastic carcinoma. Parathyroid disorders: • Parathyroid hyperplasia. • Parathyroid adenoma. Disorders of endocrine pancreas: • Diabetes mellitus: Classification, etiology, pathogenesis, complications & morphology. Disorders of adrenal glands: • Adrenal cortical hyperplasia. • Adrenal cortical neoplasia: adenoma & carcinoma. • Pheochromocytoma. • Hyperadrenalism and Hypoadrenalism • Adrenogenital Syndomes Multiple endocrine neoplasia syndrome	6	6	Dr. Shatha Thanoon	Pituitary: -Know most common causes of hypo & hyperpituitarism -Have an idea about the pituitary adenoma & their clinical pathological features. Thyroid -Know most common causes of hypo & hyperthyroidism. -To understand the pathogenesis, morphology and clinical coarse of nodular hyperplasia (goiter) -Know main types of thyroiditis and their pathogenesis -Classify thyroid neokplams and be familiar with most common types. Adrenal: -Know most common disorders affecting adrenal cortex & medulla. Parathyroid: -List the types of hyperparathyroidtis and & their major causes.

Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis	4	4	Dr. Radhwan Al-Jammas	At the end of the course the student should be familiar with common skin disorders. Definitions of macroscopic terms Definitions of microscopic terms Disorders of Pigmentation and Melanocytes Benign and malignant Epithelial Tumors Acute inflammatory dermatoses Chronic inflammatory dermatoses Infection and Infestation
Bone pathology: Hereditary & metabolic disorders Osteoporosis Fractures Osteomyelitis Bone tumors Joint Disorders: Osteoarthritis, Infectious arthritis, Rheumatoid arthritis Soft tissues Tumours: Classification, Etiology, Pathogenesis	4	4	Dr. Ehsan Mahmood	At the end of the course the student should be able to describe bone infection and tumors, to describe arthritis and joint tumors and to be familiar with the concept of soft tissue tumors.

Diseases of Skeletal Muscles: Muscle atrophy, Muscle dystrophy, Myasthenia gravis				
CNS pathology	3	4	Dr. Nazar Mohammad	At the end of the course the student should be able to describe CVA, demyelinating diseases and degenerative diseases and to be familiar with CNS tumors.

7.Instructional objectives of the practical sessions:

practical title	No. of Lab.s		Faculty member	Instructional objective
Introduction to pathology: Role of pathology in the diagnosis of diseases	**1**	1	**Dr. Arwa Riyadh**	At the end of the lecture the student should be able to: - define pathology, disease, pathogenesis - describe pathologic aspects of disease - understand importance of studying pathology - list causes of disease.

Cellular response to injury: • Cell injury (Etiology, mechanism & morphology. • Necrosis & apoptosis. • Pathologic calcification & pigmentation. • Cellular adaptation & aging.	**5**	5	**Dr. Arwa Riyadh**	At the end of studying these lectures, the student is supposed to be able to: -list causes of cell injury - describe major concepts of reversible and irreversible cell injury -list the different types of necrosis, examples of each & its features -discriminate between necrosis and apoptosis. - able to define steatosis, hyaline changes, calcification and hemochromatosis. -understand theories of cellular aging
Acute inflammation: • Definition, signs, components & mechanism • Chemical mediators of inflammation. • Outcomes. • Systemic effect of inflammation. • Defects in leukocyte function. **Chronic inflammation:** • Definition, causes, mechanism & morphology. • Granulomatous inflammation.	**6**	**6**	**Dr. Nazar Mohammad**	At the end of this course the student should be able to: - Explain the salient principle of inflammation, its type and causes - Differentiated between acute and chronic inflammation - Describe mechanism of inflammatory response and its fate - Know chemical mediators, its type and

• Morphologic patterns in inflammation. • Role of lymphatic in inflammation. • Cell Regeneration, healing & repair. Scar & keloid				role in inflammatory response - Understand granulomatous inflammation, types and causes - Know the principle of wound healing and factors affecting it
Homodynamic forces & edema: • Definition. • Pathophysiologic categories. • Hyperemia & congestion. Hemostasis & coagulation • components of hemostasis. • Thrombosis. • Embolization. • Infarction.	**4**	**4**	**Dr. Shatha Thanoon**	At the end of the course the student should be able to: To know the concept of hyperemia and congestion, & how to differentiated between them. Understand edema, & its pathogenesis. Describe thrombosis, risk factors and fates. Undestand the conept of embolism, its type and concequences. To know typs of Infarction Define shock, its type and pathogenesis
Infections pathology:	**4**	**4**	**Dr. Radhwan Al-Jammas.**	At the end of this course , the student should be able to: 1-Identify and discuss the epidemiologic aspect of infectious diseases.

				2-Undestand the pathophysiology and methodology of transmission of infectious diseases. 3-Know the pathology of Tuberculosis, syphilis and leprosy. 4-Understand the difference between bacterial and viral infection. 5-Know the relation between mycoplasma, rickettsia, spirochetes with some diseases. 6-Know the defense mechanism of the body against infection.
Immunopathology:	**6**	**4**	**Dr. Hadeel Tahseen**	At the end of the course, the student will have to:1- know & understand the basic components of immunity, molecular mechanism & differentiate between innate & adaptive immunity. 2- learn the major causes & mechanisms of immunodeficiency 3- Define hypersensitivity & differentiate between their types. 4- Recognize the mechanism of immune tolerance & its role in

				autoimmunity. 5- know the mechanism of transplantation immunology. 6- Define amyloidosis & know its mechanism, types, and sequelae.
Medical genetics: • Introduction & principles. • Mendelian disorders: types & characteristics. • Cytogenetic disorders. • Multifactorial disorders. • Investigations& diagnosis of genetic disorders	**4**	**2**	**Dr. Zainab Waleed**	At the end, the students should be able to: -To know major types of chromosomal abnormalities and genetic mutations -Know classification of genetic disorders &hereditary diseases -To describe the different mode of inheritance and expression of human diseases with examples. - To list the important genetic tests and their indication.
Neoplasia • Neoplasia: Definition, incidence, terminology & classification. • Characteristics of benign & malignant tumors. • Dysplasia & carcinoma in situ. • Epidemiology of cancer, role of heredity. • Premalignant conditions. • Molecular basis of cancer (oncogenes & tumor suppressor genes). • Biology tumor growth. • Etiology of cancer, (Chemical, radiation & viral oncogenesis).	**8**	**10**	**Dr. Nazar Mohammad**	At the end of this course the student should be able to: - Define neoplasm, its nomenclature and - Discriminate between benign and malignant tumor and describe the characteristic of each type. - Know the pathway of spread of

• Clinical effects of tumors, cachexia & paranoplastic conditions. • Grading & staging of tumors. • Laboratory diagnosis of tumors.				malignant neoplasm - Understand precancerous lesions and dysplasia - Understand the molecular basis of cancer and targets of carcinogenesis - Describe the etiological factors involved in carcinogenesis - Describe the important clinical effects of neoplasm - Know the principle of cancer grading and staging - Describe the laboratory diagnosis of cancer
Environmental & nutritional diseases	**4**	**4**	**Dr Nazar Jawhar**	1. Define pollutants and List it is effects. 2. Recognize any case with CO poisoning. 3. Explain Obesity and demonstrate obesity assessment. 4. Discuss the injury by therapeutic agents. 5. Differentiate between acute and chronic alcohol consumption and their effect on different body organs.

				6. Illustrate the toxic effects of heavy metals. 7. Distinguish between different physical injuries.
Hematopathology • Cellular elements of blood & bone marrow. • Stem Cell Disorders: • Classification • Aplastic anemia. • Myeloproliferative disorders. • Polycythemia. • Leukemias: • Acute leukemias. • Chronic leukemias. • Anemia: • Classification. • Nutritional anemia: Iron deficiency & megaloblastic anemia. • Hemolytic anemia: Hereditary hemoglobinopathies (sickle cell anemia) & thalassemias, hereditary spherocytosis, G6PD deficiency & immune hemolytic anemia. • Bleeding Disorders: • Classification. • Investigations	**10**	**10**	**Dr. Sura Obay**	Lecture 1: definition and classification of anemia, Iron deficiency anemia (IDA), and megaloblastic anemia: objectives the students will be able to: 1.Define anemia and classify it according to morphological and etiological characteristics . 2.Know the main causes of Iron deficiency anemia. 3.Enumerate the factors that affect iron absorption. 4.Describe signs, symptoms and hematological features of IDA. 5.Discuss the diagnosis of IDA. 6.Define megaloblastic anemia 7.Illustrate the causes of megaloblastic anemia. 8.Discuss the clinical and

				hematological features of megaloblastic anemia. 9.Demonstrate the sources, requirements , absorption of both vitamin B12 and folate and causes of their deficiencies. 10. Conclude the diagnostic features of megaloblatic anemia. Lecture 2: hemolysis and hemolytic anemia Objectives The students will be able to: 1.Distinguish between hemolysis and hemolytic anemia. 2. classify hemolytic anemia. 3.Compare between Warm and Cold AB types AIHA. 4.Discuss hemolytic disease of the newborn and its types. 5.Define mechanical anemia/ fragmentation anemia and illustrate its causes. Lecture 3:hereditary spherocytosis and G6PD deficiency.

				Objectives the students will be able to: 1.Illustrate the main characteristic features of hereditary spherocytosis, pathogenesis, and its diagnosis. 2.describe the mechanism of G6PD deficiency, its clinical presentation , hematological features, and diagnosis. Lecture 4: hemoglobinopathies, thalassemia syndrome, and sickle cell disease (SCD). Objectives The students will be able to: 1.Define hemoglobinopathies 2.Know the structure of hemoglobin 3.Enumerate the main types of thalassemia. 4.Classify thalassemia clinically and compare between types. 5.Discuss B- thalassemia major, its clinical and hematological features, diagnosis and

				management. 6.Define (SCD) and describe its pathogenesis , clinical and hematological features, and diagnosis. Lecture 5: aplastic anemia Objectives The students will be able to: 1.Define aplastic anemia and describe its pathogenesis. 2.Enumerate and discuss the types of aplastic anemia. 3.Describe the laboratory findings and diagnosis of aplastic anemia. 4.Know the treatment of thalassemia. Lecture 6: acute leukemia and chronic leukemia Objectives The students will be able to: 1.Define leukemia and its types. 2.Enumerate the risk factors of acute leukemia.

				3.Describe pathology and pathogenesis of acute leukemia. 4.Illustrate the clinical and hematological features of acute leukemia. 5.Know FAB classification of acute leukemia. 6.Discuss CLL , its clinical and hematological features, and diagnosis. 7.Know the clinical staging of CLL. 8.Discuss CML, its clinical and laboratory features. 9. Define Philadelphia chromosome and justify its importance. Lecture 7: plasma cell dyscrasias Objectives Students will be able to: 1.Define multiple myeloma and its chracteristics. 2.enumerate the risk factors of multiple myeloma. 3.Discuss pathogenesis of multiple myeloma. 4.Illustrate the clinical manifestations of

				multiple myeloma. 5. Know the Monoclonal protiens. 6.Describe hematological abnormalities of multiple myeloma. 7.List the criteria for diagnosis of multiple myeloma. Lecture 8: thrombocytopenia, vascular purpura, disorders of coagulation. Objectives Students will be able to: 1.Define thrombocytopenia. 2.compare between thrombocytopenia result from increased platelets destruction and thrombocytopenia caused by decreased platelet production. 3.Discuss autoimmune thrombocytopenia. 4.illustrate features of hypersplenism. 5.Enumerate diorders of blood vessels. 6.Describe the structure of factor VIII 7.Compare between haemophilia A and Von

				Willebrand's disease. 8.Know what is DIC and its causes.
Lymphoreticular system • Disorders of lymphoid tissues: • Reactive conditions. • Non-Hodgkin's Lymphomas. • Hodgkin's Disease • Multiple myeloma	**4**	**4**	**Dr. Radhwan Al-Jammas**	At the end of this lectures, the student should be able to: 1-Understand different types of non neoplastic lymphoid tissue diseases including lymphadenitis & its types. 2-Describe Hodgkin`s lymphoma and its subtypes.  3-Explain Non Hodgkin`s lymphoma, main subtypes, their pathogenesis and pathology. 4-List the neoplastic and non neoplastic disorders of the spleen. 5-Describe the most common thymic disorders including hyperplasia and thymomas.
I- Pathology of blood vessels: • Atherosclerosis. • Hypertension. • Aneurysms. • Vasculitis. • Venous & lymphatic disorders.	**8**	**8**	**Dr. Ehsan Mahmood**	At the end of these lectures, the students should be able to: -Discuss and compare between the pathogenesis of hypertensive vascular disease and Hypertensive Heart Diseases, their types,

• Vascular tumors. **II- Pathology of the heart:** • Ischemic heart diseases. • Rheumatic heart diseases. • Infective endocarditis. • Myocardial diseases. • Valvular & pericardial heart diseases.				clinical importance and morphological changes. -Define atherosclerosis and discuss the pathogenesis, by explaining the theory of the explanation of atherosclerosis (endothelial cell dysfunction) and relate all of these to the risk factors effects. -Recognize the importance of complicated atheroma in the consequences of atherosclerosis and enumerate the main sites of its formation and exempt arteries. -Define heart failure and distinguish between the causes, pathophysiology and clinical features of left sided and right sided heart failure. -List the classification of congenital heart diseases and justify the new pathogenetic factors in relation to the development of cyanotic or acyanotic congenital heart diseases. -Review a comprehensive summary of each type of them. -Differentiate between the pathogenesis of ischemic heart disease

				and myocardial infarction. -List the clinical syndromes associated with ischemic heart disease, their types, and morphological value of each type and their complications. -Describe the pathologic correlates of sudden death and its causes. Discuss the major etiologies of acquired VHD and compare the clinical presentation, etiology, and pathology of the major types
I- Upper Respiratory Tract: • Acute infections. • Nasal tumors. • Nasopharyngeal carcinoma. Tumors of the larynx **II- Lower Respiratory Tract:** • Lung collapse. • Obstructive lung diseases: Asthma, emphysema, chronic bronchitis & bronchiectasis. • Interstitial lung diseases. • Pulmonary infections: Pneumonias, lung abscess & tuberculosis. • Vascular lung diseases & embolism.	**6**	**6**	**Dr. Arwa Riyadh**	At the end of the course the student should be able to: 1.Distinguish between the most important diseases of the respiratory system 2.Describe the types of acquired atelectasis 3. Differentiate between various types of COPD 4.Demonstrate the main characteristics of different types of emphysema 5.Discuss the pathologic characteristics of chronic bronchitis

• Pulmonary neoplasm: Bronchogenic carcinoma, carcinoid & mesothelioma				6.Verify between main histologic types of bronchogenic carcinomas
GIT pathology **Oral pathology:** • Inflammatory diseases. • Leukoplakia & neoplastic conditions. • Salivary gland lesions. • Oral manifestations of systemic diseases **Esophageal disorders:** • Congenital & common acquired conditions. • Achalasia. • Esophagitis. • Esophageal carcinoma. **Gastric pathology:** • Gastritis (acute & chronic). • Peptic ulcer diseases (Etiology & risk factors, morphological changes). • Gastric tumors. • Hypertrophic gastropathy. **Intestinal disorders:** • Congenital anomalies. • Infectious enterocolitis (Types & Pathogenesis). • Acute appendicitis. • Inflammatory towel diseases (crohn's disease & ulcerative colitis): Definition, etiology , pathogenesis & pathological changes. • Malabsorption syndrome: Definition and classification. (Celiac disease: Pathogenesis & morphological changes). • Diverticular diseases.	**8**	**8**	**Dr. Radhwan Al-Jammas.**	At the end of this course , the student should be able to: 1-Know Types of premalignant diseases of oral cavity. 2-Discribe types of salivary glands tumors. 3-Discuss pathogenesis and pathology of Barrett esophagus. 4-Learn about Acute and Chronic Gastritis types and pathology . 5-Discribe the pathogenesis, types and pathology of gastric tumor 6-Know types, pathology and complication of peptic ulcer. 7-Discuss the role of H. pylori in pathogenesis of peptic ulcers. 8-Know the pathophysiology and pathology of malabsorption syndromes. 9-Discribe the congenital malformations of intestine

• Vascular diseases. • Intestinal neoplasms: Adenoma, familial polyposis coli, colonic adenocarcinoma, carcinoid tumor & lymphoma.				10-Differentiate between ulcerative colitis and Crohn`s disease. 11-Discuss the epidemiology, pathogenesis and pathology of polyposis coli. 12-Learn about colorectal cancer.
Hepatobilliary system • Pathophysiology of jaundice. • Hepatic failure. • Cirrhosis: Etiology, pathogenesis, morphology & clinical effects. • Viral hepatitis: types, clinicopathologic syndromes. • Drug-induced liver diseases. • Alcohol-induced liver diseases. • Neonatal cholestasis. • Gall stones & cholecystits (types, pathogenesis & morphologhy) • Pancreatitis (types, pathogenesis & morphologhy) • Pancreatic carcinoma	**6**	**6**	**Dr. Sura Obay**	At the end of the course the student should be able to -List the functions of the liver and describe clinical manifestations that occur as a result of functional alterations -Relate the mechanism of bile formation and elimination to the development of cholestasis - Differentiate between intrahepatic and extrahepatic cholestasis -Discuss the pathology & clinical manifestations of cholestasis - Identify the effects of impaired liver function on body systems - Compare hepatitis A, B, C, D, and E in terms of source of infection, incubation period, acute disease manifestations,

				development of chronic disease, and the carrier state. -Describe the pathology of hepatitis and differentiate between acute and chronic hepatitis - Summarize the three patterns of injury that occur with alcohol-induced liver disease - Describe the pathology, causes, clinical manifestations, and complications of cirrhosis - Discuss the incidence and etiology of liver cancer - Review the structure and function of the gallbladder - Describe the formation of gallstones. causes, composition, types, clinical manifestation &complications of gallstones. - Differentiate between acute and chronic cholecystitis with regard to etiology, pathology& signs and symptoms - Identify causes of acute & chronic pancreatitis and describe pathologic

				changes, symptoms, complications & diagnosis - List the types, causes, clinical features of pancreatic cancer &State the reason for the poor prognosis.
Renal pathology Congenital anomalies & Cystic diseases of the kidney. **Glomerular Diseases:** Classification & clinical manifestations. Pathogenesis. Morphological changes. Glomerulonephritis presenting as nephritic syndrome. Nephrotic syndrome. Chronic glomeruonephritis Systemic glomerulonephritis & Diabetic Nephropathy **Tubular & Interstitial Diseases:** Acute tubular necrosis. Tubulointerstitia1 nephritis. Urinary tract infections. Drug-induced nephritis. .Uric acid nephropathy • **Tumours of the Upper & Lower urinary systems:**	**6**	**6**	**Dr. Zainab Waleed**	At the end of the course the student should be able to describe major congenital and acquired renal disorders. Clinical Manifestations of Renal Diseases Congenital Anomalies Urinary tract infection Cystic Diseases of the Kidney Glomerular Diseases Diseases Affecting Tubules and Interstitium Urinary Tract Obstruction (Obstructive Uropathy) Tumors of the Kidney

Renal cell carcinoma. Wilm's tumour. Transitional cell carcinoma				
Male genital system **Penile & testicular diseases:** • Inflammatory lesions. • Cryptorchidism. • Testicular neoplasia. **Disorders of the prostate:** • Prostatitis. • Nodular hyperplasia. • Prostatic carcinoma.	**4**	**4**	**Dr. Radhwan Al-Jammas**	At the end of this course , the student should be able to: 1-Discribe congenital anomalies of penis. 2-Differentiate between Hydrocele, Hematocele and Chylocele 3-Discribe the pathogenesis, pathology and complications of undescended testis. 4-Know the types of seminoma. 5-Discribe the pathology of non seminomatous testicular tumors. 6-Learn about the predisposing factors of benign prostatic hyperplasia. 7-Differentiate between malignant and benign prostatic hyperplasia.
Female genital system **Diseases of Lower Female genital tract:** • Infections of female genital tract. • Vulva1 & vaginal lesions.	**6**	**6**	**Dr. Hadeel Tahseen**	At the end of the course, the student will have to: 1)Know the concepts of CIN, pathogenesis, and its relation to cancer and screening programs. 2)Understand the major

• Cervical intraepithelial neoplasia & carcinoma. **Uterine disorders :** • Dysfunctional uterine bleeding. • Adenomyosis & endometriosis. • Endometritis & endometrial polyp. • Endometrial hyperplasia. • Tumors of the uterus: Leiomyoma, endometrial carcinoma & leiomyosacoma. **Ovarian & tubal disease:** • Inflammatory conditions. • Functional & non-neoplastic cysts. • Ovarian tumours. **Gestational disorders**: .Miscarriage .Ectopic gestation Toxaemia of pregnancy. Gestational trophoblastic diseases. • placental abnormalities.				risk factors of cervical cancer and its morphological types. 3) Have knowledge about the pathogenesis of endometrial polyps and its clinical consequences. 4)Define endometrial hyperplasia, its risk factors, types, and clinical implications. 5) Understand the concepts of endometriosis, and adenomyosis, their pathogenesis, and clinical effects. 6) Be familiar with the pathology and clinical features of leiomyoma. 7) Recognize common gestational trophoblastic diseases. 8) Know concepts of ovarian cysts and their major types. 9) Have an idea about the classification of ovarian neoplasms and their morphological types.
Pathology of Breast: Developmental disorders **Inflammatory conditions:** Acute mastitis, Fat necrosis & Duct ectasia Fibrocystic changes	**4**	**4**	**Dr. Nazar Mohammad**	At the end of this course the student should be able to: -Understand various non-neoplastic mammary lesions and its relation to

Proliferative breast disorders Benign tumours of breast Breast carcinoma Disorders of male breast				breast cancer -Know important risk factors of breast cancer -Describe the various morphological types of breast cancer -Know the important prognostic factors of breast cancer -Appreciate the most common diseases affecting male breast.
Endocrine system Pituitary disorders: • Hyerpituitarism and Pituitary adenomas. • Hypopituitarism. • Supracellar lesions. Pathology of the thyroid • Thyoiditis: Hashimoto's thyroiditis, • Dequervain's thyroiditis & others. • Graves' disease. Multinodular goiter. • Thyroid tumors: Adenoma, Papillary carcinoma, follicular carcinoma, medullary carcinoma & anaplastic carcinoma. Parathyroid disorders: • Parathyroid hyperplasia. • Parathyroid adenoma. Disorders of endocrine pancreas: • Diabetes mellitus:	**6**	**6**	**Dr. Shatha Thanoon**	Pituitary: -Know most common causes of hypo & hyperpituitarism -Have an idea about the pituitary adenoma & their clinical pathological features. Thyroid -Know most common causes of hypo & hyperthyroidism. -To understand the pathogenesis, morphology and clinical coarse of nodular hyperplasia (goiter) -Know main types of thyroiditis and their pathogenesis -Classify thyroid neokplams and be familiar with most

Classification, etiology, pathogenesis, complications & morphology. Disorders of adrenal glands: • Adrenal cortical hyperplasia. • Adrenal cortical neoplasia: adenoma & carcinoma. • Pheochromocytoma. • Hyperadrenalism and Hypoadrenalism • Adrenogenital Syndomes Multiple endocrine neoplasia syndrome				common types. Adrenal: -Know most common disorders affecting adrenal cortex & medulla. Parathyroid: -List the types of hyperparathyroidtis and & their major causes.
Pathology of the skin: Disorders of Melanocytes Premalignant & Malignant disorders of epidermis	**4**	**4**	**Dr. Radhwan Al-Jammas**	At the end of the course the student should be familiar with common skin disorders. Definitions of macroscopic terms Definitions of microscopic terms Disorders of Pigmentation and Melanocytes Benign and malignant Epithelial Tumors Acute inflammatory dermatoses Chronic inflammatory dermatoses Infection and Infestation
Bone pathology: Hereditary &	**4**	**4**	**Dr. Ehsan Mahmood**	At the end of the course the student should be able to describe bone

metabolic disorders Osteoporosis Fractures Osteomyelitis Bone tumors Joint Disorders: Osteoarthritis, Infectious arthritis, Rheumatoid arthritis Soft tissues Tumours: Classification, Etiology, Pathogenesis Diseases of Skeletal Muscles: Muscle atrophy, Muscle dystrophy, Myasther gravis				infection and tumors, to describe arthritis and joint tumors and to be familiar with the concept of soft tissue tumors.
CNS pathology	**3**	**4**	**Dr. Nazar Mohammad**	At the end of the course the student should be able to describe CVA, demyelinating diseases and degenerative diseases and to be familiar with CNS tumors.

8.Tables of the Course

day	8.30-10.30	10.30-12.30	13.30.15.30
Saturday	Theory lecture	Theory lecture	discussion
Sunday	Practical session	Practical session	
Monay	Practical session	Practical session	
Tuesday			
Wensday	Theory lecture	Theory lecture	
Thursday			

9.Learning Resources

Essential books: Robbin Basic Pathology by Kumar, Cotran & Robbins 10th edition, ELSEVIER. – Philadelphia, Pennsylvania 910 pages, 2018

Recommended books: Muir' pathology, MNS series of Pathology(lat edition). –

Handouts of all lectures will be available at the department. –

Important web sites: –

http://www.pathweb.com

http://www.pathmax.com/

http://www.med.uiuc.edu/PathAtlasf/titlePage.html

http://www.medscape.com/pathologyhome

http://www.path.uiowa.edu/virtualslidebox/

http://www.virtualpathology.leeds.ac.uk/

http://histopathsho.34sp.com/index.html

http://pathology.class.kmu.edu.tw/index.htm

10.Additional Information

Contact: Dr Nazar Jawhar: nazar.jawhar@uoninevah.edu.iq
Location: Pathology department

Microbiology for the third year

1.General Information:

- **Subject**: Microbiology
- **Code**: (316)
- **Credit hours**: 8 units(90 hours theoretical + 60 hours practical).
- **Course Language**: English.

2.Syllabus:

❖ **Bacteriology**

- Introduction to Medical microbiology .
- Bacterial structure .
- Bacterial Genetics.
- Microbial Pathogenesis and Normal Flora.
- Common pathogenic Bacteria.

❖ **Immunology**

- components of the immune system
- Innate immune response
- Specific immune response
- Complement System
- Autoimmunity
- Immunodeficiency disorder
- Vaccination
- Transplantation immunology

❖ **Virology**

- viral structure, virion components,
- nucleic acid replication
- different types of viral life cycles
- DNA- virus
- RNA- virus

❖ **Mycology**

- Mycotic Infection
- Superficial mycosis
- Subcutaneous mycosis
- systemic mycosis

3.Learning Objective:

Knowledge

- Prepare a doctor with knowledge and expertise in medical microbiology (Bacteria, parasites, fungi and viruses) as well as immunity so that he can diagnose them through clinical signs and laboratory tests.
- Introducing the student to ways to prevent infection with these pathogenic organisms and explaining the diseases and epidemiology they cause and the means of control available to limit their spread.
- Providing him with information related to dangerous microorganisms that spread from time to time and cause human deaths, such as (bird flu, swine flu, mad cow disease, Ebola virus, and AIDS virus).
- Introducing the medical student to the various germs and the places and importance of their natural presence in the human body.
- Introducing the student to diseases that originate from animals and that are transmitted to humans, causing critical conditions, and knowing the methods of their transmission to limit human infection with them.
- Providing the student with information related to the immune system and its role in defending the body, in addition to introducing the various immune diseases.

Skills

- Enriching students with information related to microbiology, to provide them with experience and knowledge in their field of work in the future when they engage in society to provide their medical services, spread health awareness, and provide the best available treatment methods for the disease cases .
- Familiarizing the student with traditional laboratory methods in addition to modern diagnostic techniques and means used globally.
- Acquiring laboratory work skills.
- Learn how to deal with coworkers in the laboratory.
- Writing reports and interpreting the results.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. **Outcomes for Educational Program**

Knowledge

- the Graduates becomes familiar with microbiology and immunology and uses it for diagnosis and treatment. and distinguish between diseases caused by germs and diseases that are not caused by germs.
- understanding the optimal use of antibiotics to prevent their misuse and to enable him to distinguish between viral, bacterial and fungal infections.

Skills

- Graduates will accurately diagnose and develop management plans for a variety of diseases through clinical signs and laboratory tests.

Attitudes

- Ethical Practice: Graduates will consistently adhere to ethical principles , Respect patients and Maintaining patients' secrets.
- Accuracy and honesty in work.
- Not presenting the material aspect to the human aspect.
- Continuous Improvement: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in microbiology.

5.**Course Overview**

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: Three hours per week (first semester)
- Weekly Hours: Three hours per week (second semester)
- Total: 90 hours per academic year

For the practical part:

- Weekly----
- Weekly…..
- Total : 30

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: microbiology laboratory

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching

- *For the practical part.*
  - Lectures and Seminars.
  - Team-Based Learning (TBL).

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, …ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-Components of Assessment:

- Written Exams (65% of total grade)
- practical exam (25% of total grade)
- daily exams , Logbook and Research Project and Presentation (10% of total grade)

-*Detailed Breakdown*

- **Written Exams (65%)**:

- Midterm Exam: 20% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)

- End term Exam: 45% (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)

❖ **practical exam (25%):**
❖ mid-year practical exam 10% .
❖ Final practical exam 15% .
❖ **daily exams , Logbook and Research Project and Presentation** (10% of total grade)

-Pass/Fail Criteria

- **Pass Mark**: 50%

- **Continuous Assessment**

- **Examples**: Assignments, quizzes, presentations.

Blueprints of final exam/ 1st trial.

	Subject	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Cognitive Skill			Ass. Tool		Total no. of items
								Remembering(direct questiond)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	
1	Introduction to Microbiology	3	3	9	0.0681818	6.8	6	1	4	1			
2	Structures of Bacteria.	3	2	6	0.0454545	4.5	4	1	2	1			
3	Microbial Pathogenesis-1.	3	3	9	0.0681818	6.8	6	1	4	1			
4	Microbial Pathogenesis-2.	1	1	1	0.0075758	0.8	1	1	0	0			
5	Bacterial Genetics-1.	1	1	1	0.0075758	0.8							
6	Bacterial Genetics-2.	1	1	1	0.0075758	0.8	1	0	1	0			
7	Normal Flora.	3	3	9	0.0681818	6.8	6	0	6	0			
8	Introduction to Immunology	3	3	9	0.0681818	6.8	6	0	5	1			
9	Types of Immunity, Innate Imm	1	1	1	0.0075758	0.8	1	0	1	0			
10	Types of Immunity, Adaptive Immune Response.	1	1	1	0.0075758	0.8							
11	B-cells & T cells receptors.	3	3	9	0.0681818	6.8	6	0	6	0			
12	The Complement System.	3	3	9	0.0681818	6.8	6	0	6	0			
13	Major Histocompatibility Complex (MHC) or (HLA).	1	1	1	0.0075758	0.8	1	0	1	0			
14	Antigen Processing & Presenta	2	2	4	0.030303	3.0	3	0	3	0	68		
15	Antibody-Mediated Immunity (IgG, IgM). Immunoglobulines.	2	2	4	0.030303	3.0	3	0	3	0			
16	Antibody-Mediated Immunity (IgA, IgE, IgD) Immunoglobulines.	2	2	4	0.030303	3.0	3	0	3	0			
17	Cell Mediated Immunity and T Cell Function.	3	3	9	0.0681818	6.8	6	1	5	0			
18	Genus Staphylococcus.	2	2	4	0.030303	3.0	3	0	3	0			

19	Genus Streptococcus & Entero	1	2	2	0.0151515	1.5	1	0	1	0			
20	Genus Streptococcus & Enterococcus-2.	1	1	1	0.0075758	0.8	1	0	1	0			
21	Genus *Neisseria gonorrhoeae* .	2	2	4	0.030303	3.0	3	0	3	0			
22	Genus *Neisseria meningitis* .	2	1	2	0.0151515	1.5	1	0	0	1			
23	Corynebacterium.	2	1	2	0.0151515	1.5	1	1	0	0			
24	Genus Bacillus Spp.1	2	1	2	0.0151515	1.5	1	1	0	0			
25	Genus Bacillus Spp.2	2	2	4	0.030303	3.0	3	1	2	0			
26	Listeria Spp.	2	2	4	0.030303	3.0	3	1	2	0			
27	Clostridia & related Spp.-1	1	1	1	0.0075758	0.8	3	0	2	1			
28	Clostridia & related Spp.-2	2	2	4	0.030303	3.0							
29	Cytokine	1	1	1	0.0075758	0.8	1	0	1	0			
30	Hypersensitivity Reactions typ	1	1	1	0.0075758	0.8							
31	Hypersensitivity Reactions type III & IV.	1	1	1	0.0075758	0.8	1	0	1	0	22		
32	Immune Responses to Infectious Disease (Bacteria & Virus).	1	1	1	0.0075758	0.8							
33	Immune Responses to Infectious Disease (Fungi & Parasite).	1	1	1	0.0075758	0.8	1	0	1	0			
34	Family Enterobacteriaceae in	1	1	1	0.0075758	0.8							
35	Lactose fermenter Escherichi	1	1	1	0.0075758	0.8	1	0	1	0			
36	Lactose fermenter Klebsiella	1	1	1	0.0075758	0.8							
37	Lactose fermenter (Enterobac	2	2	4	0.030303	3.0	3	0	2	1			
38	Non lactose fermenter (Salmo	1	1	1	0.0075758	0.8	1	0	0	1			
39	Non lactose fermenter (Shige	1	1	1	0.0075758	0.8	1	0	1	0			
40	Non lactose fermenter (Prote	1	1	1	0.0075758	0.8	1	0	1	0			
41	Acinetobacter baumannii.	1	1	1	0.0075758	0.8	1	0	1	0			
42	Haemophilus spp., Bordetella	1	1	1	0.0075758	0.8	1	0	0	1			
43	Pseudomonas and pseudomor	1	1	1	0.0075758	0.8							
44	Brucella, Yersinia.	1	1	1	0.0075758	0.8	1	0	0	1			
45	Gardenella vagenalis.	1	1	1	0.0075758	0.8							
46	Vibrios	1	1	1	0.0075758	0.8	1	0	1	0			
47	Helicobacter, Campylobacter	1	1	1	0.0075758	0.8							
48	Chlamydia,	1	1	1	0.0075758	0.8	1	0	1	0	6		
49	Mycoplasma	1	1	1	0.0075758	0.8							
50	Spirochetes	1	1	1	0.0075758	0.8	1	1	0	0			
51	Introduction to Medical Virol	1	1	1	0.0075758	0.8							
52	Purification of viruses, Diagn	1	1	1	0.0075758	0.8							
53	Classification of the viruses,	1	1	1	0.0075758	0.8	1	1	0	0			
54	Reaction to physical and chen	1	1	1	0.0075758	0.8							
55	Replication of viruses.	1	1	1	0.0075758	0.8	1	0	1	0			
56	Pathogenesis of viral diseases	1	1	1	0.0075758	0.8							
57	Rhabdovirus (Rabies virus).	1	1	1	0.0075758	0.8	1	0	1	0	4		
58	Picorna viruses.	1	1	1	0.0075758	0.8							
59	Coxsackie viruses.	1	1	1	0.0075758	0.8	1	0	0	1			
60	Echo virus, Rhinoviruses, Rot	1	1	1	0.0075758	0.8							
61	Paramyxovirus, Parainfluenza	1	1	1	0.0075758	0.8	1	1	0	0			
62		1	1	1	0.0075758	0.8							
total		68	65	132	1	100	100	12	77	11	100	0	

6.Instructional Objective of the lectures:

Chapter title	Lecture Title	No. of Lecture	Faculty member	Instructional Objectives
General Microbiology	Introduction to medical microbiology	1	Dr. Ali	To describe historical, Is to introduce basic principles and application relevance of clinical disease for students who are in preparation for physicians. ... It covers all biology of bacteria, viruses and other pathogens related with infectious diseases in humans.
	Bacterial structure	1	Dr. Saba	Describe the structure of a bacterial cell. Differentiate between gram-positive and gram-negative bacteria
	Bacterial Genetics	1	Dr. Saba	Is the study of how genetic information is transferred, either from a particular bacterium to its offspring or between?
	Microbial Pathogenesis and Normal Flora	1	Dr. Saba	The immune response and disease-causing microorganisms, including aspects of the humoral, cell-mediated and non-specific immune.
Bacteriology	Gram Positive Staphylococcus	1	Dr .Mohammed	Describe the general characteristics, such as the gram stain morphology and catalase production,of the genus Staphylococcus.
	Gram Positive Streptococcus	2	Dr. Neam	Describe the general characteristics, such as the gram stain morphology and catalase production, of the genus Streptococcus
	Gram positive Bacillus/ Spore forming	2	Kawthar	Describe the general characteristics of the genus Bacillus

	Gram positive Bacillus/ Corynebacterium	1	Kawthar	Describe the general characteristics of the Corynebacterium diphtheriae, and Discuss is easily treated with antibiotics
	Gram Positive Bacillus/ Listeria	1	Kawthar	Describe the general characteristics of the Listeria spp. are a group of aerobic and non-spore forming gram-positive bacilli. They are present in the environment, soil, and water.
	Gram negative Cocci/ Neisseria	2	Dr. Saba	Describe the general characteristics of the Neisseria. State what color Gram-negative bacteria stain after the Gram stain procedure
	Anaerobic Bacteria/ *Clostridium* & related *Spp*.	2	Dr. Mohammed	Describe the general characteristics of the of Anaerobic Bacteria. State the general characteristics of the genus Clostridium, and distinguish between Bacillus and Clostridium.
	Gram positive Legionella	1	Kawthar	Describe the general characteristics of the Legionella spp. Purpose was to detect colonization of the water networks with Legionella spp.
	Mycobacterium Spp.	2	Dr. Mohammed	Describe the general characteristics of the Mycobacterium Spp. Compare the clinical manifestations of tuberculosis at different stages of the disease. Understand how tuberculosis is detected and treated. Contrast the two forms of leprosy. Relate the effect of M. leprae to the physical manifestation of the disease.
	Gram Negative/ Family of Enterobacteriaceae	1	Dr. Neam	Describe the general characteristics of the Common characteristics of family Enterobacteriaceae

	Culture media and biochemical use in identification of Enterobacteriaceae	1	Dr. Neam	Describe the general characteristics of the Common characteristics of family Enterobacteriaceae
	Lactose Fermenter *E. coli*	1	Dr. Neam	Observed student outcomes upon completion of E. coli how to prevent, treat, and eliminate e. coli infections.
	Lactose fermenter Klebsiella	1	Dr. Neam	Describe the general characteristics and the students will be able to answer the following questions: Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation.
	Lactose fermenter Enterobacter and Serratia	1	Dr. Neam	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Non Lactose fermenter Salmonella & Shigella	1	Dr. Saba	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Non-lactose fermenter Proteus & Pseudomonas.	1	Dr .Mohammed	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Haemophilus & *Bordetella Spp*.	1	Dr. Eman	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Brucella Spp. & Yersinia	1	Dr. Eman	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation

	Vibrio	1	Dr. Mohammed	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Campylobacter & Helicobacter.	1	Dr. Saba	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Gardnerella & Chlamydia	1	Kawthar	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Mycoplasma	1	Dr. Ali	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
	Spirochetes	1	Dr. Ali	Describe the general characteristics and the students will be able to Describe morphology and antigens. Describe Pathogenesis & Clinical manifestation
Immunology	Introduction	1	Dr. Eman	Define and describe the components of the immune system. What types of immune responses protect individuals?
	Innate immune response	1	Dr. Eman	Explain the components of the innate immune system.
	Specific immune response	1	Dr. Neam	Explain the components of the adaptive immunity
	Immunoglobulins	1	Dr. Eman	Describe the general characteristics of immunoglobulins and the types.

	Complement System	1	Dr. Eman	Describe the complement stimulation pathway.
	Hypersensitivity reaction type I, II, III, IV	2	Dr. Eman	Recognize how hypersensitivity and allergy derive from. Describe all types of hypersensitivity.
	Autoimmunity	2	Dr. Eman	Understand the immunologic features of autoimmune disease.
	T- Lymphocyte	1	Dr. Eman	Describe the process of T-cell maturation and thymic selection
	B- Lymphocyte	1	Dr. Eman	Describe the production and maturation of B cells; Compare the structure of B-cell receptors and T-cell receptors.
	Interleukin (Cytokine)	1	Dr. Neam	Types of Cytokines Participating in Immune Response. Distinguish between ... Interleukin: Crystallographic structure of human interleukin.
	Human Leukocyte Antigen (HLA)	1	Dr. Neam	Describe the general characteristics of The human leukocyte antigen (HLA) system (the major histocompatibility complex [MHC] in humans) is an important part of the immune system
	Immunodeficiency disorder	1	Dr. Neam	The student should be able to: • Describe the term immunodeficiency disorder.
	Tumor immunology	1	Dr. Neam	Explain the term "immune surveillance". Identify weather surveillance acts against viruses or tumours. Briefly explain the cellular responses to tumour-associated antigens.
	Vaccination	1	Dr. Eman	use examples from the history of vaccination to illustrate the conduct and outcomes of vaccine strategies to control infectious diseases.

	Transplantation immunology	1	Dr. Eman	1. Understand the immunological mechanisms responsible for first and second set allograft skin rejection 2. Conceptualize direct and indirect alloantigen recognition 3. Learn the definition and mechanism(s) associated with the mixed lymphocyte reaction (MLR)
Mycology	Introduction	1	Dr. Neam	Describe the general characteristics of the fungi and yeast
	Mycotic Infection	1	Dr. Neam	Learn vocabulary, terms, and ... Distribution of fungal species in infection varies by species
	Superficial mycosis	1	Dr. Neam	Fungal infections, also called mycoses, can be divided into classes based on their invasiveness. Mycoses that cause superficial infections of the epidermis, hair, and nails, are called cutaneous mycoses.
	Subcutaneous mycosis	2	Dr. Neam	Identify the most common fungal pathogens associated with cutaneous and subcutaneous mycoses.
	Deep Mycosis	2	Dr. Neam	Identify the most common fungal ... called subcutaneous mycoses. Mycoses that spread throughout the body are called systemic mycoses.
Virology	Introduction	1	Dr. Abdulrahman	The basic concepts of virological diagnosis.

	Structure of virus	1	Dr. Abdulrahman	Describe viral structure, virion components, nucleic acid replication and different types of viral life cycles.
	Cultivation of virus	1	Dr. Abdulrahman	The primary purpose of virus cultivation is: To isolate and identify viruses in clinical samples
	DNA- virus	2	Dr. Abdulrahman	
	Herpesviridae	2	Dr. Eman	Describe the general characteristics of the herpes virus and Summarize the epidemiology of genital herpes simplex virus infections
	Varicella zoster	1	Dr. Eman	Describe the general characteristics of the Varicella virus
	Epstein Barr virus	1	Dr. Eman	Describe the general characteristics of the Epstein Barr virus
	Poxviridae	1	Dr. Neam	Describe the general characteristics of the Poxviridae
	Picornaviridae	1	Dr. Neam	Describe the general characteristics of the Picornaviridae.
	Coronaviridae	1	Dr. Neam	Describe the general characteristics of the Coronaviridae
	Rhabdoviridae	1	Dr. Neam	Describe the general characteristics of the Rhabdoviridae
	Paramyxoviridae	1	Dr. Eman	Describe the general characteristics of the Paramyxoviridae
	Hepatitis virus	2	Dr. Eman	Describe the general characteristics of the Hepatitis virus
	Rubella	1	Dr. Eman	Describe the general characteristics of the Rubella
	Orthomyxoviridae	1	Dr. Eman	Orthomyxoviridae

	AIDS	1	Dr. Eman	Describe the general characteristics of the AIDS
	Arbo virus	1	Dr. Eman	Describe the general characteristics of the Arbo virus
	Rabies	1	Dr. Eman	Describe the general characteristics of the Rabies.

7.Instructional objectives of the practical lectures:

No.	lectures title	Faculty member	Faculty member
1.	Introduction to the Medical Microbiology Laboratory	Kawthar	we learn to recognize, isolate, and identify those microorganisms that are important in causing human infections and to differentiate them from harmless microorganisms that live in or on the body, we examine methods for guiding physicians in their choice of the most appropriate antimicrobial agent(s) for treating human infections.
2.	Methods of Sterilization and Disinfection	Kawthar	We learn methods to destroy them on animate and inanimate surfaces, such as on hands and in the hospital environment.
3.	Types of Culture Media Streaking Techniques and Pure Culture	Dr .Mohammed	we need to observe microorganisms in *culture.* If we are to cultivate them successfully in the laboratory, we must provide them with suitable nutrients, such as protein components, carbohydrates, minerals, vitamins, and moisture in the right composition. This mixture is called a *culture medium*
4.	Preparation of Specimen and Simple Staining.	Dr. Neam	we learn how to make preparations to study microbial morphology under the microscope in both stained and natural states.
5.	Compound Staining.	Dr .Mohammed	we learn how to make preparations to study microbial morphology under the microscope in

			both stained and natural states.
6.	Serological & Molecular tests.	Dr. Eman	Diagnoses can be made by detecting antibodies in a patient's serum,
7.	Biological Materials Transfer and Biosafety	Kawthar	describes the appropriate specimen collection and transport methods.
8.	*Staphylococcus Spp*.	Dr .Mohammed	Describe the general characteristics of the genus Staphylococcus.
9.	*Streptococcus Spp*.	Dr. Neam	Describe the general characteristics of the genus Streptococcus
10.	*Neisseria Spp*	Dr. Eman	Describe the general characteristics of the Neisseria.
11.	*Corynebacterium Spp*.	Kawthar	Describe the general characteristics of the *Corynebacterium diphtheriae*.
12.	*Bacillus Spp*.	Kawthar	Describe the general characteristics of the genus Bacillus.
13.	*Clostridium Spp*.	Kawthar	Describe the general characteristics of the of Anaerobic Bacteria.
14.	*Mycobacterium Spp*.	Dr. Mohammed	Describe the general characteristics of the Mycobacterium Spp. Understand how tuberculosis is detected .
15.	Culture media & biochemical used in identification of Enterobacteriaceae		Describe the general characteristics of the Common characteristics of family Enterobacteriaceae
16.	Enterobacteriaceae (*Escherichia coli*).	Dr	Describe the general characteristics of the genus Escherichia coli .

		.Mohammed	
17.	Enterobacteriaceae (*Klebsiella spp*.).	Dr. Mohammed	Describe the general characteristics of the genus Klebsiella spp.
18.	Enterobacteriaceae (Salmonella).	Dr .Mohammed	Describe the general characteristics of the genus Salmonella .
19.	Enterobacteriaceae (Shigella).	Dr. Mohammed	Describe the general characteristics of the genus Shigella .
20.	Enterobacteriaceae (Genus Proteus).	Dr .Mohammed	Describe the general characteristics of the genus Proteus .
21.	Genus *Pseudomonas Spp*.	Dr. Eman	Describe the general characteristics of the genus Pseudomonas spp.
22.	*Haemophilus spp*.	Dr. Eman	Describe the general characteristics of the genus Haemophilus .
23.	*Brucella spp*.	Dr. Eman	Describe the general characteristics of the genus Brucella spp.
24.	*Vibrio cholera*	Dr .Mohammed	Describe the general characteristics of the genus Vibrio cholera .
25.	Preparation of Fungal Smear	Dr. Neam	we learn to recognize, isolate, and identify the most common fungal pathogens.
26.	Mycology Lab.	Dr. Neam	we learn to recognize, isolate, and identify the most common fungal pathogens.

8.Tables of the Course

Table of theoretical and practical teaching

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

اليوم / الساعة	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ – ٣.٣٠
السبت	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جراثيم عملي و	جراثيم عملي ي	جراثيم عملي د	
الاحد	جراثيم عملي چ امراض عملي أ ادوية عملي ب	جراثيم عملي ب امراض عملي چ ادوية عملي أ	جراثيم عملي أ امراض عملي ب ادوية عملي چ	طفيليات عملي أ	طفيليات عملي ب	طفيليات عملي چ	
الاثنين	تدريب سريري باطنية						
الثلاثاء	جراثيم A	امراض A			طب مجتمع عملي A	الجزء النظري من الجانب العملي ادوية B	
الاربعاء	امراض B	جراثيم B			ادوية B		
الخميس	باطنية A	باطنية B			طب مجتمع عملي B	الجزء النظري من الجانب العملي ادوية A	
	ادوية B	ادوية A			جراثيم A		

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

9.Learning Resources

Textbooks:

Jawetz, Melnick, & Adelberg's Medical Microbiology, 27th Edition Copyright © 2016 by McGraw-Hill Education.

ISBN 9780-0-71-82498-9

MHID 0-07-182498-7

ISSN 1054-2744.2

Textbook of Diagnostic Microbiology) 5th Edition, Connie R. Mahon (Author), Donald C. Lehman (Author), George Manuselis (Author(

•ISBN-13: 978-0323089890

•ISBN-10: 0323089895

Up To Date

10.Additional Information

Contact: [Instructor's email and phone number]

Dr. Ali Abbas Abdulkarim

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07740853338

Location: Head of Department

Dr. Mohammed Ameer Abdullah

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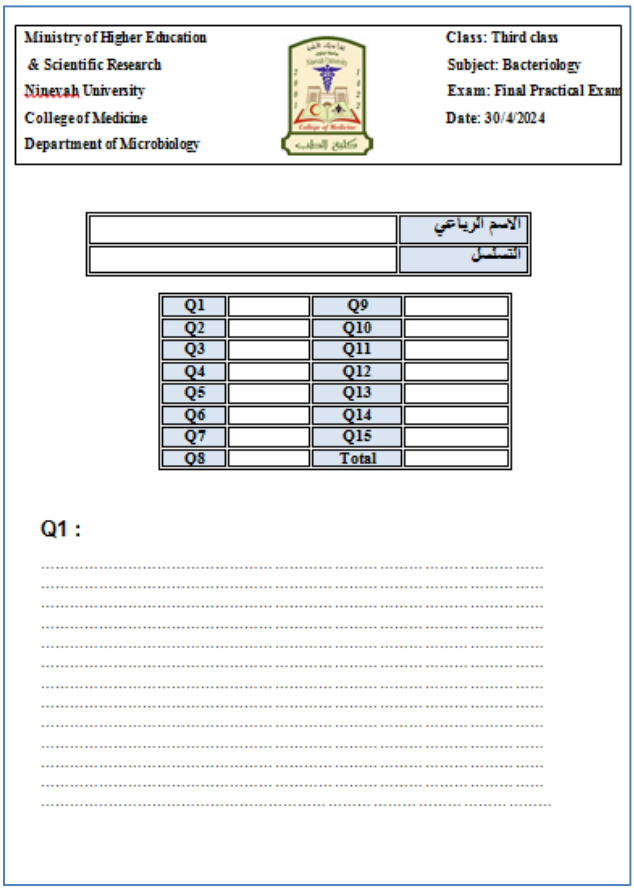
Location: Department Rapporteur

11.Appendix

Example of an exam paper for practical exam in microbiology



Ministry of Higher Education & Scientific Research
Ninevah University
College of Medicine
Department of Microbiology

Class: Third class
Subject: Bacteriology
Exam: Final Practical Exam
Date: 30/4/2024

	الاسم الرباعي
	التسلسل

Q1		Q9	
Q2		Q10	
Q3		Q11	
Q4		Q12	
Q5		Q13	
Q6		Q14	
Q7		Q15	
Q8		Total	

Q1 :

Medical Pharmacology for the third year

1.General Information

Subject: Medical pharmacology

Code: NMCO 3 17

Credit hours: 30 units(90houts theory + 60 hours practical+ 30 hours discussion)

Course Language: English

2.Syllabus:

Theory

Introduction

1.Pharmacokinetic:.absorption, distribution, metabolism, elimination

2.Pharmacodynamics : drugs response, receptors

ANS, CNS

1.Adrenergic System

2.Cholinergic System

3.Anxiolytic

4.Sedatives

5.Hypnotics

6.Local & General Anesthetics

7.Anti epileptics

8.Antipsychotics

9.Antidepressants, Antiparkinsonism

Autocoids

1.Histamine

2.anti-histamine

3.Serotonin

4.prostaglandins

5.Kinin

6.Bradykinin

7.leukotrienes

Analgesics

1.NSAIDS & Narcotic analgesics

2.gout &Migraine

GIT

1.Drugs in peptic ulcer

2.Antiemetics

3.Drugs for diarrhea & constipation

Respiratory

1.Bronchial Asthma

2.Coug

Diuretics

1.Loop diuretic

2.thiazides

3.osmotic diuretics

4.potassium sparing diuretics

CVS

1.Antihypertensive

2.Antiarrhythmics

3.Angina

4.Heart Failure Therapy

Blood

1.Antianemia & Anticoagulant drugs

Antibiotics

1.General principles of antimicrobial

2.Penicillins

3.Cephalosporin

4.Aminoglycosides

5.Sulfonamides

6.Macrolides

7.Tetracyclines

8.Clindamycine

9.Chloramphenicol

10.Quinolones

11.Metronidazole

12.Antifungal

13.Antiviral

14.Antiprotozoa

15.Anti TB

Hormones

1.Thyroid, Anti thyroid

2.drugs for diabetes mellitus

3.Steroid Drugs

4.Sex Hormones

5.Hormonal Contraception

Others

1.Cancer Chemotherapy

2.Drugs for Obesity

3.Drug-Drug Interaction

4.Herbal Medicine

3.Learning Objective

Knowledge

-Full knowledge of communication skills between the student and the professor and with colleagues in the profession

-Understanding of drugs, enabling more effective treatment of abnormal or disease states, facilitating the discovery of new treatments.

Skills

-Acquiring skills in practical laboratory application and modern scientific methods Through Practical Work application.

4.Outcomes for Educational Program

Knowledge

1. **Pharmacology Principles:** Understand drug mechanisms, therapeutic uses, side effects, and drug development processes.
2. **Communication Skills:** Master effective communication with professors and colleagues.
3. **Drug Understanding:** Gain comprehensive knowledge of drugs for effective treatment and discovery of new therapies.

Skills

1. **Patient Education:** Communicate medication information effectively to patients.
2. **Lab Skills:** Acquire practical laboratory skills and apply modern scientific methods.

Attitude

1. **Ethical Responsibility:** Uphold ethical principles in research and practice.

2. **Lifelong Learning:** Commit to continuous learning and staying current in the field.

5.Course Overview

Medical Pharmacology is **composed of** two parts as follow:

1.Theoretical Part

2.Practical part

Duration

For the theoretical part:

Weekly Hours: six hours per week (first semester)

Weekly Hours: six hours per week (second semester)

Total:90 hours per academic year

For the practical part:

-Weekly---- 6 hours per week / (one hour for each group)/ (first semester)

-Weekly---- 6 hours per week / (one hour for each group)/ second semester)(

Total : 60 hours per academic year

Location:

-For the theoretical part: Lecture Hall

-For the practical part: medical pharmacology lab

Format:

-For the theoretical part

A systematic explanation of the subject topics, giving relevance to the most important concepts. The student acquires the basic scientific knowledge of the subject in theory classes, which will be complemented by self-study of the themes of the subject program.

-For the practical part

Laboratory practices: Practical sessions for the observation and performance of procedures, the practical learning of pharmacological techniques, and their medical application. Group work and active self-learning promoted.

Assessment Methods:

Types of Assessment

Formative Assessments: practical exams

Summative Assessments: Midterm exams, Final exams

Grading System

Components of Assessment

Mid-Year practical Exam (10% of total grade)

Mid-Year Theoretical Exam (30% of total grade)

Final practical Exam (10% of total grade)

Final Theoretical Exam (50% of total grade)

Detailed Breakdown

Theoretical Exams:

Midterm Exam:30% (cover topics from first half of course,

includes multiple-choice questions (MCQs questions)

Final Exam: 50%(covering the entire course content, includes MCQs short answer question)

Practical Exams:

Midterm Exam: 10% (Assessed by practical experiments and

procedures performed)

Final Exam : 10%(Assessed by practical experiments and procedures performed)

Pass/Fail Criteria

Pass Mark: 50%

6.Instructional Objective of the lectures:

Lecture title	No. Of lectures	Faculty member	Instructional objective
Introduction Pharmacokinetic Pharmacodynamics		Dr. kassim	-At the end of this chapter the student will be able to: 1. Define various terminologies used in pharmacology. 2. Know about nature and sources of drugs. 3. Understand pharmacokinetics like Absorption, Distribution, Metabolism and Excretion (ADME) of drugs. Understand theoretical pharmacokinetics like half- life. 4. Pharmacodynamics like mechanism of drug action, dose relationship .
ANS, CNS		Dr. Shahbaa	-This chapter outlines the fundamental physiology of the ANS and describes the role of neurotransmitters in the communication between extracellular events and chemical changes within the cell. -This chapter provides an overview of the CNS, with a focus on those neurotransmitters that are involved in the actions of the clinically useful CNS drugs. These concepts are useful in understanding the etiology and treatment strategies for the neurodegenerative disorders that respond to drug therapy: Parkinson's disease,

			Alzheimer's disease, multiple sclerosis (MS), and amyotrophic lateral sclerosis
Autocoids		Dr. Kassim	1.Understanding what are the autacoids 2.Describe the major pharmacological actions of histamines 3.List some of the therapeutic uses and adverse effects of H1 antagonists
Analgesics		DR. kassim DR.Shahbaa	-Overview of the physiology of the inflammation process. Learning the generations, mechanism of action - and therapeutic effect of this group of drugs.
GIT		Dr. Shahbaa	this chapter describes drugs used to treat four common medical conditions involving the gastrointestinal tract 1.peptic ulcers and gastroesophageal reflux disease (GERD) 2.chemotherapy- induced emesis 3.Diarrhea 4.Constipation
Respiratory		Dr. Shahbaa	Diagnosis and therapeutic management of Asthma, chronic obstructive pulmonary disease (COPD), and allergic rhinitis are commonly encountered respiratory disorders
CVS & Diuretics		Dr. Shahbaa	Describe and assess the molecular and cellular actions of drugs that affect the cardiovascular system. - Classify the major cardiovascular drugs in current use by their actions at a cellular and molecular level Evaluate the pharmacological basis for the treatment of major cardiovascular diseases

			and appreciate the common side effects that these drugs can produce show understanding of the importance of personalized medicine strategies for cardiovascular disease and how these are derived Have knowledge of new and emerging pharmacological treatments for cardiovascular disease
Blood		Dr. Shahbaa	This chapter describes drugs that are useful in treating disorders of hemostasis
Antibiotics		Dr. Kassim	This chapter focuses on key pharmacologic concepts that are related to the medical use of antimicrobial drugs and microbial resistance to these drugs By the end of the chapter, you will be able to: Outline how antibiotics were discovered and what drives the discovery of new antimicrobial drugs Define and differentiate the following related terms: antibiotic, antimicrobial, anthelmintic, antiparasitic, and antifungal Describe the different mechanisms of action for antimicrobial drugs. Describe some important considerations in prescribing antimicrobial drugs to successfully treat infections without promoting microbial drug resistance
Hormones		Dr. Kassim Dr.Shahbaa	To learn the basic and advanced endocrine biochemistry, physiology and pathophysiology which provide the basis for

			understanding endocrine disorders To accumulate a critical mass of fundamental information and practical approaches for the diagnosis, management and prevention of endocrine disorders including endocrine disorders in children To acquire knowledge and skills necessary for the critical analysis of the endocrine literature
Cancer Chemotherapy , Drugs for Obesity Drug-Drug Interaction, Herbal Medicine		Dr. Kassim	In this chapter, general principles of pharmacology relevant to anticancer drugs are presented. The specific properties of the most important anticancer drugs in clinical use are reviewed, with emphasis on their structure, mechanism of action, pharmacokinetics, and toxicity. Study the traditional empirical knowledge with modern science. It uses the healing power of nature to restore the body's ability to protect, regulate and heal itself

7.Instructional objectives of the practical lectures:

Chapter title	Lectures	Instructor
Introduction	**Pharmacokinetic:**. absorption .distribution**,** metabolism**,** elimination **Pharmacodynamics :** drugs response**,** receptors	Dr. Kassim
ANS, CNS	Adrenergic System Cholinergic System Anxiolytic Sedatives Hypnotics Local & General Anesthetics Anti epileptics, Antipsychotics Antidepressants, Antiparkinsonism	Dr. Shahbaa
Autocoids	Histamine, anti histamine, Serotonin, prostglandines , Kinin, Bradykinin , leucotriens	Dr. Kassim
Analgesics	NSAIDS & Narcotic analgesics, gout & Migraine	Dr. Kassim Dr. Shahbaa
GIT	Drugs in peptic ulcer, Antiemetics , Drugs for diarrhea & constipation	Dr. Shahbaa
Respiratory	Bronchial Asthma, Cough	Dr. Shahbaa
Diuretics	Loop diutetic, thiazides, osmotic diuretics , potassium sparing diuretics.	Dr. Shahbaa
CVS	Antihypertensive , Antiarrhythmics , Angina, Heart Failure Therapy	Dr. Shahbaa

Blood	Antianaemic & Anticoagulant drugs	Dr. Shahbaa
Antibiotics	General principles of antimicrobials . Penicillins, Cephalosporin,Aminoglycosides, Sulfonamides. Macrolides, Tetracyclines, Clindamycine, Chloramphenicol.Quinolones, Metronidazole,Antifungal, Antiviral, Antiprotozoa , Anti TB	Dr. Kassim
Hormones	Thyroid, Anti thyroid , drugs for diabetes mellitus , Steroid Drugs, Sex Hormones, Hormonal Contraception	Dr. Kassim Dr. Shahbaa
Others	Cancer Chemotherapy ,Drugs for Obesity Drug-Drug Interaction , Herbal Medicine	Dr. Kassim

8.Tables of the Course

Refer to the table section at the appendix page( )

9.Learning Resources

-Lippincott Illustrated review pharmacology

-Karen Whalen, Richard Finkel and Thomas A. Panavelil,

-Wolters Kluwer, Philadelphia, 2019 7th edition

10.Additional Information

-Contact: Dr. Shahbaa Abdulrahman al bayati/ 07739019601

Shahbaa.abdulwahab@uoninevah.edu.iq

Location: medical pharmacology department

Surgery for the third year

1.General Information:

- **Subject**: surgery
- **Code**: (3 18)
- **Credit hours**: 2 units(30 hours)
- **Course Language**: English.

2.Syllabus:

Module: General surgery

1- Gangrene and Ulceration:

- Definitions.
- Clinical features.
- Causes, classifications and risk factors.
- Treatment.

2- Sterilizations:

- Methods of sterilizations.
  - Heat: - (Dry heat, Moist heat).
  - Radiation: - (UV light, Ionizing radiation).
  - Chemical: - (inorganic, organic).
- Satisfactory Disinfectant.
- Factors influencing activity of disinfectants.

3- Blood transfusion:

- **Basics of Blood Components.**
- **Blood Typing and Cross-Matching.**
- **Blood Donation and Screening.**
- **Transfusion Guidelines and Protocols.**

4- Nutrition and fluid:

- Introduction to Nutrition and Fluid Therapy.
- Nutritional Requirements.
- Nutritional Disorders.
- Enteral and Parenteral Nutrition.
- Fluid and Electrolyte Balance.
- Fluid Therapy.

- Acid –base disturbances.

5- Introduction to trauma:

- Components & stages.
- Classification.
- Epidemiology.
- Mechanism of injuries & causes of mortality.
- Organized trauma care.
- Primary survey & resuscitation.
- Secondary survey.
- Tertiary survey.

6- Disaster surgery:

- Common features of major disasters.
- Factors influencing rescue and relief efforts.
- Sequence of the relief effort in major disasters.
- Essentials of casualty evacuation.
- Principles of damage control surgery.
- Common surgical problems in disasters.
- Disaster planning.

7- Body response to injury:

- Inflammatory response.
- Neuro endocrine response.
- Factors affecting Body response to injury.

8- Lymphedema and lymphangitis:

- Overview of Lymphedema & Pathophysiology.
- acute lymphangitis.
- Acute lymphadenitis.
- Lymphedema (primary & secondary) management.

9- Lymphadenopathy:

- anatomy and physiology of the lymphatic system.
- causes of lymphadenopathy.
- pathophysiology of lymphadenopathy in various diseases.
- Clinical features.
- diagnostic tests and imaging studies.
- differential diagnosis.
- management.

10- Hemorrhage:

- Classification of hemorrhage.
- Pathophysiological response to hemorrhage.
- Clinical features.

11- Surgical infection:

- History of surgical infection.
- Microbiology of surgical infection.
- Sources of infection.
- Systemic infection.
- Presentation of surgical infection.
- Prevention of surgical infection.

12- Wounds and Scar Surgery:

- Types of Wounds.
- Basic Wound Care.
- Suturing Techniques.
- Scar Formation and Types & its management.
- Complications in Wound Healing.

13- Basic Surgical Skills:

- Surgical Instruments and Handling.
- Suture types.
- Basic Knot Tying Techniques.
- Wound Management.
- Incision and Drainage.
- Hemostasis and Tissue Handling.

14- **Perioperative Care:**

- Introduction to Perioperative Care.
- Preoperative Assessment.
- Preoperative Patient Preparation.
- Anesthesia Basics.
- Intraoperative Care.
- Monitoring and Managing Intraoperative Complications.
- Postoperative Care.
- Postoperative Complications and Management.
- Special Considerations in Perioperative Care.

15- shock:

- introduction, definition & classification.
- Hypovolemic shock.

- Cardiogenic shock.
- Anaphylactic shock.
- Septic shock.
- Multiple organ dysfunction & SIRS.

3.Learning Objective:

Knowledge

1. **Anatomy and Physiology:**
    - Understand the anatomy of the abdomen, pelvis, thorax, and extremities.
    - Comprehend the physiological processes related to the gastrointestinal system, endocrine system, and cardiovascular system.
2. **Pathophysiology:**
    - Identify common surgical diseases and conditions, including their etiology, pathogenesis, and natural history.
    - Understand the mechanisms of wound healing and the physiological response to trauma.
3. **Diagnostic Methods:**
    - Interpret basic diagnostic studies including lab results, imaging, and pathology reports.
    - Understand the use of different diagnostic modalities in the evaluation of surgical patients.
4. **Perioperative Management:**
    - Know the principles of preoperative assessment, intraoperative care, and postoperative management.
    - Understand the concepts of fluid and electrolyte balance, pain management, and infection control.

Skills

1. **Clinical Skills:**
    - Conduct thorough history taking and physical examinations specific to surgical patients.
    - Perform basic surgical procedures such as suturing, wound dressing, and insertion of catheters.

Attitude

1. **Professionalism:**
    - Demonstrate ethical behavior and integrity in all interactions with patients, families, and healthcare team members.
    - Show respect for patient confidentiality and autonomy.
2. **Teamwork:**
    - Exhibit willingness to learn from and contribute to the team.
3. **Patient-Centered Care:**
    - Show empathy and compassion in patient interactions.
    - Communicate effectively with patients and their families, providing clear explanations and addressing concerns.
4. **Lifelong Learning:**
    - Display a commitment to continuous learning and improvement.
    - Seek feedback and reflect on personal performance to improve clinical skills and knowledge.
5. **Adaptability:**
    - Demonstrate flexibility in adapting to the dynamic and unpredictable nature of surgical practice.
    - Maintain composure and professionalism in high-pressure and emergency situations.

4. Outcomes for Educational Program

Knowledge

1. **Understanding of Surgical Anatomy and Physiology**:
    - Proficiency in the anatomical structures and physiological processes relevant to common surgical procedures.
    - Knowledge of pathophysiology underlying surgical conditions.
2. **Clinical Knowledge**:
    - Familiarity with the presentation, diagnosis, and management of common surgical diseases.

- Understanding of surgical indications, contraindications, and complications.

3. **Principles of Surgery**:
    - Grasp of aseptic techniques, surgical instrumentation, and principles of wound healing.
    - Knowledge of perioperative care, including preoperative assessment and postoperative management.

Skills

- Recognize the basic knowledge of Surgery and its departments and how will corporate with clinical skills

Attitude

1. **Professionalism**:
    - Demonstration of ethical behavior, integrity, and accountability in clinical practice.
    - Commitment to patient-centered care and respect for patient autonomy and confidentiality.
2. **Teamwork and Communication**:
    - Effective communication with patients, families, and healthcare team members.
    - Ability to work collaboratively within a multidisciplinary team, including nurses, anesthetists, and other surgeons.
3. **Lifelong Learning and Improvement**:
    - Willingness to engage in continuous learning and professional development.
    - Openness to feedback and self-reflection to improve clinical practice.

5.Course Overview

- **The course is composed of:**

Theoretical Part only.

- **Duration**:

For the theoretical part:

- Weekly Hours: 2 hours per week (second semester)

- Total: 30 hours per academic year

- **Location**:

-For the theoretical part: Lecture Hall at college campus.

- **Format**:

- For the theoretical part

- Tutor-Centered.
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching.
- Case-Based Learning.

- **Assessment Methods**

Types of Assessment:

- **Formative Assessments**: quizzes.
- **Summative Assessments**: 100 mark written examination (MCQ system).
- **Continuous Feedback**:

-*Components of Assessment:*

➢ Written: end-term exam (100 mark)

-*Detailed Breakdown*

❖ **Written Exams**:

- End term Exam: composed of 60 question as multiple-choice questions (Comprehensive exam covering the entire course content).

-Pass/Fail Criteria

- **Pass Mark**: 50%

Blueprints of final exam. (Total 60)

Lecture	No. of questions
Gangrene & ulcer	4
Sterilization	2
Blood transfusion	4
Nutrition and fluid therapy	4
Body response to injury	4
Lymphedema & lymphangitis	4
Lymphadenopathy	4
Disaster surgery	2
Introduction to trauma	4
Surgical infection	4
Perioperative care	4
Wound and scar surgery	4
Basic surgical skills	4
Hemorrhage	6
Shock	6

6.Instructional Objective of the lectures:

Lecture title	No. Of lectures	Faculty member	Instructional objective
Gangrene and Ulcer	2	**Dr. Fawaz AlFaqe**	• To define gangrene and ulcers and name their characteristics • To describe the causes, symptoms, and treatment options for gangrene and ulcers • To explain the preventive measures for gangrene and ulcers • To discuss the complications associated with untreated gangrene and ulcers.
Sterilizations	2	**Dr. Fawaz AlFaqe**	• To define sterilization and name its characteristics • To describe the methods of sterilization and their advantages • To discuss the disadvantages and potential complications of sterilization • To explain the importance and applications of sterilization in various fields.
Blood transfusion	2	**Dr. Aows Mohammad**	• Understanding the different components of blood. • Learning about ABO and Rh blood typing systems. • **Indications and Contraindications for Transfusion.** • Understanding the process of blood donation. • Recognizing and managing adverse reactions to blood transfusions.

Nutrition and fluid therapy	2	**Dr. Aows Mohammad**	• Overview of the importance of nutrition and fluid therapy in maintaining health and managing diseases. • Basic concepts such as macronutrients, micronutrients, hydration, and electrolyte balance. • Nutritional requirements during different life stages. • Methods for assessing nutritional status, including anthropometric measurements, biochemical tests, clinical assessment, and dietary assessment. • Common nutritional deficiencies (e.g., iron deficiency anemia, vitamin deficiencies). • Malnutrition and its types (e.g., undernutrition, overnutrition). • Eating disorders and their management. • Nutritional support in cancer patients and those with gastrointestinal disorders. • Indications, contraindications, and complications of enteral and parenteral nutrition. • Physiology of fluid balance and electrolytes in the body. • Assessment and management of fluid and electrolyte disorders (e.g., dehydration, hyponatremia, hyperkalemia). • Types of fluid therapy (e.g., maintenance, replacement, resuscitation). • Calculations for fluid requirements in different clinical scenarios (e.g., surgery, critical illness). • Complications and monitoring of fluid therapy.
Body response to injury	2	**Dr. Saad Muwafaq Attash**	• To define the metabolic response to injury and trauma. • To understand the effect of that response.

Lymphedema and lymphangitis	2	**Dr. Bassam Khaleel Al-Abbasi**	• The students should know brief knowledge about function and Physiology of lymphatic system. • To learn what is acute lymphangitis, causes, presentation and treatment • To have good knowledge about lymphedema in relation to the followings: - - definition and its common locations. - pathogenesis and differences from usual edema. - clinical presentation and complications. - how to classify lymphedema. - how to manage lymphedema non-surgically. - what are the common surgical techniques for correction.
Lymphadenopathy	2	**Bassam Khaleel Al-Abbasi**	• The students should know when to consider lymphadenopathy. • the role of history in diagnosing the causes of lymphadenopathy. • How clinical examination and site of lymph node enlargement helps in diagnosis and management of lymphadenopathy. • What are the risk factors of malignant lymphadenopathy? • When and how to perform and types of lymph node biopsy that used to detect causes of lymphadenopathy.
Disaster surgery	2	**Dr. Mohammed Hisham**	To discuss: • The common features of various disasters, The principles behind the organization of the relief effort and of triage in treatment and evacuation. • The role and limitations of field hospitals in disaster. • The features of conditions peculiar to disaster situations and their treatment.
Introduction to trauma	2	**Dr. Mohammed Hisham**	To Discus: • Being Familiar with TimeLine concept in trauma management, and how to assess trauma problem, understand how to select early total care or damage control surgery
Surgical infection	2	**Dr. Yahya Zakaria**	• To understand: • The characteristics of the common surgical pathogens. • The factors that determine whether a wound will become infected. • The clinical presentation of surgical infections. • The management of abscesses. • The causes of reduced resistance to infection (host response). • The definitions of infection, particularly at surgical sites.

Perioperative care	2	**Dr. Ashraf M. AL shaker**	• Understand the principles of perioperative care and their application in clinical practice. • Perform comprehensive preoperative evaluations and identify risk factors. • Manage intraoperative care, including anesthesia, surgical techniques, and patient monitoring. • Implement effective postoperative care plans, including pain management, infection control, and rehabilitation. • Recognize and manage common perioperative complications. • Communicate effectively with the surgical team and patients' families.
Wounds and Scar Surgery	2	**Dr. Faysal S. Shaeer**	• Understand the biology of wound healing. • Identify different types of wounds and scars. • Apply principles of wound assessment and management. • Perform basic wound care and suturing techniques. • Recognize and manage complications related to wound healing. • Understand surgical and non-surgical options for scar management.
Basic surgical skills	2	**Dr. Faysal S. Shaeer**	• Understand and apply aseptic techniques. • Perform basic surgical hand ties and instrument ties. • Demonstrate proficiency in basic suturing techniques. • Understand the principles of wound management. • Perform basic procedures such as incision, drainage, and minor excisions.

Hemorrhage	2	**Dr. Taha H. Al-Saiegh**	• understand the definition, classification (internal vs. external, arterial vs. venous vs. capillary), and pathophysiology of hemorrhage. • Identify common causes (trauma, surgical complications, diseases like hemophilia, and conditions like aneurysms) and risk factors (anticoagulant use, bleeding disorders). • Recognize signs and symptoms of hemorrhage (hypotension, tachycardia, pallor, dizziness, and altered mental status) and understand the stages of shock related to blood loss. • Learn diagnostic techniques and tools (physical examination, laboratory tests, imaging studies) to assess the severity and source of bleeding. • Understand immediate management strategies (direct pressure, tourniquets, hemostatic agents) and definitive treatments (surgical intervention, transfusions, medications like vitamin K).
Shock	2	**Dr. Taha H. Al-Saiegh**	• Understand shock as inadequate tissue perfusion causing cellular and organ dysfunction. • identify hypovolemic, cardiogenic, distributive (septic, anaphylactic, neurogenic), and obstructive shock. • Recognize clinical signs and symptoms for each type of shock. • Understand diagnostic methods including lab tests and imaging. • Outline steps for rapid assessment and stabilization. • Describe treatment strategies for each type of shock. • Identify complications and factors affecting prognosis.

7.Tables of the Course

جدول محاضرات المرحلة الثالثة 2024-2023

Lecture name	Date	Faculty member
Gangrene and ulcer	20-2-2024	Dr. Fawaz alfaqe
Sterilizations	21-2-2024	Dr. Fawaz alfaqe
Blood transfusion	27-2-2024	Dr. Aows Mohammad
Nutrition and fluid therapy	28-2-2024	Dr. Aows Mohammad
Body response to injury	5-3-2024	Dr. Saad Attash
Lymphedema and lymphangitis	12-3-2024	Dr. Bassam Khalil
Lymphadenopathy	19-3-2024	Dr. Bassam Khalil
Disaster surgery	26-3-2024	Dr. Mohammed Hisham
Introduction to trauma	2-4-2024	Dr. Mohammed Hisham
Surgical infection	9-4-2024	Dr. Yahya Zakaria
Perioperative care	16-4-2024	Dr. Ashraf M. Alshaker
Wounds and Scar Surgery	23-4-2024	Dr. Faysal
Basic surgical skills	30-4-2024	Dr. Faysal
Hemorrhage	31-4-2024	Dr. Taha Alsaiegh
Shock	7-5-2024	Dr. Taha Alsaiegh

د. علاء جميل تركي

مقرر الفرع

8.Learning Resources

Textbooks: Baily and Love's Textbook / Short Practice of Surgery

9.Additional Information

Contact:

Dr. Alaa Jameel Turki

Email: alaa.turki@uoninevah.edu.iq

Location: surgery department.

10.Appendix

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات B	الجزء النظري من الجانب العملي طفيليات A
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جرائيم B	الجزء النظري من الجانب العملي جرائيم A	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جرائيم عملي د	جرائيم عملي ي	جرائيم عملي و	
الاثنين	جرائيم عملي ج امراض عملي أ ادوية عملي ب	جرائيم عملي ب امراض عملي ج ادوية عملي أ	جرائيم عملي أ امراض عملي ب ادوية عملي ج	طفيليات عملي ج	طفيليات عملي ب	طفيليات عملي أ	
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جرائيم A		امراض A		طب مجتمع A	جراحة A	
	امراض B		جرائيم B		جرائيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	جراحة B	
	ادوية B		ادوية A		ادوية A	جرائيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

يحيى

١/٢٥

Community Medicine for Third Year

1.General Information:

- **Subject**: Community Medicine
- **Code**: (3 19)
- **Credit hours**: 3 units(Theoretical 30 hours, Clinical 30 hours).
- **Course Language**: English.

2.Syllabus:

- **Introduction to Medical statistics**
- **Summarization and presentation of data**
- **Measurement of variability**
- **The normal distribution and its characteristics**
- **The confidence interval and limit**
- **Tests of significance**
  - **Z-test**
  - **T-test**
  - **X^2 –test.**
- **Introduction to sampling**
- **The concept of community diagnosis as an application of statistics in measuring population health**
  - **Definition of Nutritional terms**

- Define science of nutrition & food.
- Determine functions of food.
- Identify relation of nutrition to health & disease.
- Outline food constituents.
- Determine energetic value of nutrients.
- Analyze feeding behavior control.
- Determine factors affecting nutritional requirements.

  - **Nutrient metabolism and requirements**

- **Protein**
  - Determine protein constituents & its recommended allowances.
  - Classify amino-acids & proteins.
  - Identify essential amino-acids.
  - Assessment of protein nutrition status
  - Illustrate functions of proteins.
  - Discuss malnutrition disorders.
  - Outline measures & factors affecting protein requirement.
  - Protein contents of some foods.
- **Carbohydrates**
  - Determine carbohydrates constituents.
  - Classify carbohydrates.
  - Identify functions of carbohydrates.
  - Illustrate types of dietary fibers.
  - Discuss the role of dietary fibers in managing certain health problems.
- **Fats**
  - Determine fats constituents .
  - Classify fatty acids .
  - Illustrate functions of dietary & body fats .
  - Outline health problems of fats .
  - Identify functions & properties of essential fatty acids .
  - Discuss cholesterol & types of lipoproteins .
  - Enumerate indications & contraindications of weight reduction .
- **Vitamins**
  - Determine vitamins general characteristics .
  - Classify vitamins .
  - Determine essential facts about vitamins A,E,K & B complex .
  - Outline clinical presentation of vitamin A deficiency & toxicity .
  - Identify directions of action of vitamin D , clinical features of vitamin d deficiency .
  - Discuss clinical presentation of vitamins B1,B2,nicotinic acid , folic acid , B12 & vitamin C deficiency .
- **Inorganic elements**
  - Determine inorganic elements number & purposes.
  - Classify inorganic elements .
  - Determine essential facts about the macro-elements (Na , K).
  - Determine essential facts about the micro-elements (iodine , magnesium & iron).
  - Identify clinical features & preventive measures of iodine deficiency.
  - Discuss mechanism of iron balance , types & preventive measures of iron deficiency anemia.
- Nutrition and infection
- Nutrition of specific group of population
- Nutritional surveys and assessment of nutritional status of population.
- Nutritional diseases
- Diet therapy and nutritional rehabilitation.

3.Learning Objective:

Knowledge

The objective of studying biostatistics is to apply statistical methods to the analysis of biological and health data. This field combines the principles of statistics with the scientific aspects of biology and medicine to address a wide range of public health and biomedical questions. The main objectives include:

1. Designing Biological Experiments and Clinical Trials: Developing methodologies to collect data efficiently and accurately in biological research and medical studies.

2. Analyzing Biological Data: Using statistical techniques to interpret and draw meaningful conclusions from complex biological data, including genetics, epidemiology, and public health.

3. Informing Public Health Decisions: Providing the statistical foundation for decision-making in public health policy, resource allocation, and intervention strategies.

4. Evaluating Medical Treatments and Interventions: Assessing the effectiveness and safety of new drugs, treatments, and medical procedures through rigorous statistical analysis

5. Understanding Disease Patterns: Identifying trends, risk factors, and causes of diseases within populations to support disease prevention and control effort Improving Healthcare.

7. Advancing Biological Knowledge: Contributing to the broader understanding of biological processes and interactions through the application of statistical models.

By mastering biostatistics, researchers can ensure their findings are valid, reproducible, and applicable to real-world biological and medical challenges**.**

Skills

1. Statistical Analysis: Proficiency in various statistical methods and techniques, including descriptive statistics, inferential statistics, and predictive modeling.

2. Data Management: Skills in collecting, organizing, cleaning, and managing large datasets efficiently.

3. Programming and Software Proficiency: Expertise in statistical software such as, SPSS, and Python for performing complex data analyses.

4. Study Design: Knowledge of designing experiments and clinical trials, including sampling methods, randomization, and control groups

5. Communication Skills: Ability to communicate statistical concepts and findings clearly to non-statistical audiences, including researchers, clinicians, and policymakers.

6. Problem-Solving: Strong analytical and critical thinking skills to address and solve complex biostatistical problems.

7. Ethics and Confidentiality: Knowledge of ethical guidelines and practices in handling sensitive medical data and ensuring patient confidentiality.

8. Biological and Medical Knowledge: Basic understanding of biological and medical concepts to contextualize statistical analyses within the relevant scientific framework.

9. Collaborative Skills: Ability to work effectively in interdisciplinary teams, collaborating with researchers, healthcare professionals, and other stakeholders.

Attitude

1. Data Interpretation: Ability to interpret statistical results and translate them into meaningful conclusions and recommendations

2. Epidemiology: Understanding of epidemiological principles and methods to study the distribution and determinants of health and disease conditions

3. Probability Theory: Strong foundation in probability theory to model and understand random phenomena in health data.

Research Methodology: Familiarity with research methodologies and the ability to critically evaluate the quality of research studies and their statistical methods**.**

4. Outcomes for Educational Program

Knowledge

Proficiency in Statistical Techniques: Graduates will be proficient in a variety of statistical methods, including hypothesis testing, regression analysis, survival analysis, and multivariate analysis.

Ability to Design Research Studies: Graduates will be capable of designing robust and ethical clinical trials, observational studies, and other types of biomedical research.

Data Management Skills: Graduates will have the ability to efficiently manage and process large datasets, ensuring data quality and integrity.

Lifelong Learning and Adaptability: Graduates will be prepared for lifelong learning and adaptability, staying current with new statistical methods and emerging trends in biomedical research.

By achieving these outcomes, graduates of medical statistics programs will be well-equipped to contribute to the advancement of medical research and public health.

Skill

By the end of the course, students should be able to

1. Understand Fundamental Statistical Concepts: Grasp core principles such as probability, distributions, hypothesis testing, confidence intervals, and p-values.

2. Apply Statistical Methods to Biological Data: Utilize various statistical techniques, including t-tests, chi-square tests, regression analysis, and non-parametric methods, to analyze biological and medical data.

3. Design Experiments and Studies: Plan and implement biological experiments and clinical trials, including the formulation of research questions, selection of appropriate study designs, and determination of sample sizes.

4. Interpret Statistical Results: Accurately interpret and draw conclusions from statistical analyses, understanding the implications of results in a biological context.

By achieving these learning objectives, students will be equipped with the knowledge and skills necessary to apply biostatistical methods in their future biological and medical research endeavors.

Attitude

1. Use Statistical Software: Competently use statistical software (such as Excel, SPSS) to perform data analysis, including data manipulation, statistical testing, and graphical representation of data.

2. Evaluate Research Literature: Critically assess the use of statistical methods in biological and medical research papers, identifying strengths and weaknesses in study design and analysis.

3. Communicate Statistical Findings: Effectively communicate statistical results and their biological significance to both statistical and non-statistical audiences, through written reports and oral presentation

4. Explore Advanced Topics: Gain a foundational understanding of advanced biostatistical topics, such as survival analysis, longitudinal data analysis, and bioinformatics.

5. Couse Overview

- **The course is composed of two parts as follow:**

. Theoretical part 2. Practical part

- . **Duration:**

For Theoretical Teaching: Number of Weekly Hours:

-1 hour per week in the first semester (15 hours)

-1 hour per week in the second semester (15 hours)

-Grand Total: 30 hours per academic year

For Practical Teaching: Number of Weekly Hours:

-2 hours per week in the first semester (30 hours)

-Grand Total: 30 hours per academic year

• The teaching scheduled for the first semester shall be at two levels, theoretical and Practical.

• Teaching scheduled for the second semester shall be at one level, theoretical

• **Location**:

• The theoretical lecture takes place in the lecture hal

• Practical training takes place in the computer laboratory

- **Format**:

For the theoretical part and the practical part:

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching

- **Assessment method:**

Types of Assessment

- **Formative Assessments**: none.
- **Summative Assessments**: Evaluating students through conducting theoretical and practical exams in addition to allocating a special degree to students' activities represented by diaries .

Components of Assessment and -Detailed Breakdown

1.First semester degree (10%)

2.Theoretical exam in the middle of the academic year (from 20 degrees)

3.The theoretical exam at the end of the school year (from 70 degrees) includes multiple choice questions, problem-solving questions and evaluative questions(statistic).

Pass/Fail Criteria

- **Pass Mark**: 50%

Blueprint for community medicine

Written assessment exam for 3 st stage 2023-2024

Subject	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for 70questions exams(W*70)	No. of test items on each SLO	Remembering(direct question)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	Total no. of items
Statistics	L	2	1	2	0.0307692	2.1538462	2	1	1	0	2		2
general rules for forming a frequency distribution	L	1	1	1	0.0153846	1.0769231	1	0	1	0	1		1
Measurement of Variability	L	2	2	4	0.0615385	4.3076923	5	1	2	2	5		5
The normal distribution	L	2	1	2	0.0307692	2.1538462	2	2	0	0	2		2
The standard normal distribution	L	2	2	4	0.0615385	4.3076923	4	2	0	2	4		4
Testing hypothesis	L	1	2	2	0.0307692	2.1538462	2	0	1	1	2		2
Test the mean of	L	1	1	1	0.0153846	1.0769231	1	0	0	1	1		1

one sample													
The Chi square test	L	1	1	1	0.0153846	1.0769231	1	0	1	0	1		1
statistical graphs	L	1	2	2	0.0307692	2.1538462	2	1	1	0	2		2
nutrition 1 food constituent's caloric requirements	L	3	2	6	0.0923077	6.4615385	7	5	2	0	7		7
proteins and nitrogen balance.	L	2	3	6	0.0923077	6.4615385	6	3	3	0	6		6
Carbohydrates	L	2	3	6	0.0923077	6.4615385	6	4	2	0	6		6
Fats	L	3	2	6	0.0923077	6.4615385	6	5	1	0	6		6
Vitamin	L	2	2	4	0.0615385	4.3076923	5	4	1	0	5		5
inorganic nutrition, minerals	L	4	2	8	0.1230769	8.6153846	8	6	2	0	8		8
inorganic nutrition, water.	L	2	1	2	0.0307692	2.1538462	3	3	0	0	3		3
nutritional status assessment	L	2	2	4	0.0615385	4.3076923	5	3	2	0	5		5
diet therapy	L	1	2	2	0.0307692	2.1538462	2	2	0	0	2		2
nutritional therapy for GIT disorder, CVD, renal disease	L	2	1	2	0.0307692	2.1538462	2	2	0	0	2		2
Total		36	33	65	1	70	70	44	20	6	70		70

6. Instructional Objectives of lectures:

For Example

Lecture title	No. of lectures	Teaching Faculty	Topics
Introduction of statistics	1	Asst.Lect Zahraa tariq	To learn statistical terminology
general rules for forming afrequency distribution	1	Asst.Lect Zahraa tariq	Organize Data**: Systematically organize raw data into a structured format that is easy to understand and interpret. leading to more accurate and meaningful conclusions in their research or professional work..
i Measurement of Variability	2	Asst.Lec Zahraa tariq	Understand Data Spread**: Assess how spread out or dispersed the data points are in a dataset, which helps in understanding the variability or consistency within the data. leading to more robust and accurate statistical analyses and better-informed decisions.
The normal distribution	1	Asst.Lec Zahraa tariq	Understand Data Behavior**: Recognize and understand the behavior of data that follows a normal (Gaussian) distribution, which is common in many natural and social phenomena can enhance their statistical analysis capabilities, apply a wide range of statistical techniques, and make more accurate and informed decisions in research and practical applications..

The standard normal distribution	1	Asst.Lect Zahraa tariq	Recognize Patterns**: Understand the shape and properties of the normal distribution, including its bell-shaped curve, symmetry around the mean, and how data tends to cluster around the central value.
Testing hypothesis	1	Asst.Lect Zahraa tariq	Decision Making**: Equip individuals with a systematic method to make data-driven decisions and draw conclusions about a population based on sample data.
Test the mean of one sample	1	Asst.Lect Zahraa tariq	Assess Population Mean**: Determine if the sample mean provides sufficient evidence to draw conclusions about the population mean.
The Chi square test	1	Asst.Lect Zahraa tariq	Categorical Data Analysis**: Understand and apply a statistical method used to analyze categorical data and examine relationships between categorical variables.
statistical graphs	1	Asst.Lect Zahraa tariq	statistical graphs, individuals can enhance their ability to analyze and present data, facilitating better decision-making and communication in various fields such as science, business, healthcare, and social sciences.
Nutrition 1 food constituents caloric requirements	1	Dr. Sara	Define science of nutrition & food. Determine functions of food. - identify relation of nutrition to health & disease - Outline food constituents. Determine energetic value of nutrients. analyze feeding behavior - determine factors affecting nutritional requirements.

proteins and nitrogen balance.	1	Dr. Sara	-Determine protein constituents & its recommended allowances. -Classify amino acids & proteins Identify essential amino acids -Illustrate functions of proteins Outline measures & factors affecting protein requirement. -Identify nitrogen balance and factors affecting N.B.
carbohydrates	1	Dr. Sara	-Determine carbohydrates constituents - Classify carbohydrates. - Identify functions of carbohydrates. -Illustrate types of dietary fibers . -Discuss the role of dietary fibers in managing certain health problems. - know the health effect of sugars over intake.
Fats	1	Dr. Sara	-Determine fats constituents. -Classify fatty acids . - Illustrate functions of dietary and body fats -Outline health problems of fats. -Identify functions & properties of essential fatty acids. -Discuss cholesterol & types of lipoproteins.

Vitamin	1	Dr. Sara	- Determine vitamins general characteristics -Classify vitamins . - Determine essential facts about vitamins A,E,K & B c complex -Outline clinical presentation of vitamin A & toxicity . -deficiency. -Identify directions of action of vitamin D , clinical features of vitamin D deficiency . -Discuss clinical presentation of vitamins B1,B2,nicotinic acid , folic acid , B12 , & vitamin C deficiency .
inorganic nutrition, minerals	1	Dr. Sara	-Determine inorganic elements number & purposes. -Classify inorganic elements. -Determine essential facts about the macro-elements (Na, K). -Determine essential facts about the micro-elements (iodine, magnesium & iron). -Identify clinical features & preventive measures of iodine deficiency. -Discuss mechanism of iron balance, types & preventive measures of iron deficiency anemia
inorganic nutrition, water.	1	Dr. Sara	-know the percent of water in the body and the important of it . -to know the mechanism of water balance in the body and the factors affect these balance

nutritional status assessment	1	Dr. Sara	.to know the way of nutritional status assessment and its important strengths &limitations of each component include : -Anthropometric measurements. -Dietary evaluation.i -Clinical evaluation. - Lab. assessment.
diet therapy	1	Dr. Sara	-To prevent or treat malnutrition. -To control diet - related manifestations of disease. -To delay progression of chronic disease. -To provide support for other medical or surgical treatment. -To play rehabilitative and palliative role e.g. maintaining or enhancing quality of life in terminally ill patients. -Dietary advice is useful for health promotion , disease prevention , nutritional support and rehabilitation.
nutritional therapy for GIT disorder, CVD, rena disease	3	Dr. Sara	-Nutritional Therapy for GIT Disorders -Gastro esophageal Reflux Diseases, Hiatal Hernia, &Esophagitis, Nutrition Care Guidelines for Reducing Gastroesophageal Reflux: - Peptic Ulcer Disease, constipation, Celiac Disease (Gluten-Sensitive Enteropathy), and their nutritional therapy. -celiac disease and its nutritional therapy. - Nutritional Therapy in Liver Diseases. -Nutritional therapy in CVD . -Nutritional therapy in renal disease .

7. Instructional objectives of practical lectures

FOR EXAMPLE:

Applications to computerized statistical codes
View data in statistical tables

•View data visually using Excel

•Descriptive statistics (examples and weekly assignments

Represent data digitally

Calculate data deviation digitally

•Analytical statistics (examples and weekly assignments

Natural distribution and its applications in the health field, calculation of trust limits and their applications

Moral tests: X2

See SPSS

Measurement of morbidity

8. Table of the course

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الثاني للعام الدراسي (٢٠٢٣-٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

اليوم / الساعة	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ – ٣,٣٠
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات B	الجزء النظري من الجانب العملي طفيليات A
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جراثيم B	الجزء النظري من الجانب العملي جراثيم A	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي ز	امراض عملي ز ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي ز طفيليات عملي و	جراثيم عملي د	جراثيم عملي ي	جراثيم عملي و	
الاثنين	جراثيم عملي ج امراض عملي أ ادوية عملي ب	جراثيم عملي ب امراض عملي ج ادوية عملي أ	جراثيم عملي أ امراض عملي ب ادوية عملي ج	طفيليات عملي ج	طفيليات عملي ب	طفيليات عملي أ	
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جراثيم A		امراض A		طب مجتمع A	جراحة A	
	امراض B		جراثيم B		جراثيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	جراحة B	
	ادوية B		ادوية A		ادوية A	جراثيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

يحيى
١/٢٥

9.Learning Resources:

Park's textbook of preventive and social medicine
Biostatistics (Wayn W.Daniel)

Essential of Food Science, 4th Edition

10.Additional Information

Contact:Dr. Huda Abbas

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sara.abdulhameed@uoninevah.edu.iq

Location: شعبة طب الاسرة و المجتمع \ فرع الطب الباطني

Internal medicine for the third year

1.General Information:

- **Subject**: internal medicine
- **Code**: (3 20)
- **Credit hours**:5 units(theoretical 50 , practical 65).
- **Course Language**: English.

2.Syllabus:

- Cardinal manifestations of diseases:
  - History taking Chest pain
  - Manifestations of CVD disease
  - Edema & ascites
  - Jaundice
  - Manifestations of GIT diseases
  - Manifestations of CNS diseases 1
  - Manifestations of CNS diseases 2
  - Manifestations respiratory diseases
  - Manifestations renal diseases
  - Manifestations of blood disorders
  - Shock and anaphylaxis
  - Manifestations of musculoskeletal diseases
  - Manifestations of endocrine disorders
- Infectious diseases:
  - Principles of infectious diseases
  - Diagnosis of infectious diseases
  - Fever
  - Acute infective diarrhea
  - Viral haemorrhagic fevers
  - Staphylococcus infections
  - Streptococcus infections
  - Brucellosis
  - Typhoid and paratyphoid fever
  - Tetanus
  - Rabies
  - Malaria
  - Toxoplasmosis
  - Visceral Leishmaniasis
  - Amebiasis & Giardiasis
  - Helminthic infections: Nematodes, Trematodes, Cestode.

- HIV infections & AIDS
- Discussion

- Electrolytes and acid base balance
  - Disorders of water and sodium balance 1
  - Disorders of water and sodium balance 2
  - Hypokalemia
  - Hyperkalemia
  - Metabolic and respiratory acidosis
  - Discussion
- Critical illness/ acute medicine
  - Shock and anaphylaxis
  - Sepsis and septic shock

3.Learning Objective:

Knowledge

- Make the student aware of common signs and symptoms of common medical diseases
- Make the student aware of proper medical history taking
- Make the students aware of common underlying causes of medical manifestations.
- Make the students aware of common infectious diseases in our community.
- Teaching the student the diagnostic methods and the therapy to infectious diseases, make the students able to make a differential diagnosis .
- Make the students know the general preventive measures to each disease.
- Make the students aware of common electrolytes and acid-base balance abnormalities
- Make the students aware of the basic information in nutritional diseases

Skills

1. Take proper history

2. Perform physical examination, including general examination .precordial examination , abdominal examination , chest examination

3. Make a good doctor-patient relationship and here the Students will demonstrate effective communication skills with patient with variable clinical profiles.

4. Interview patients.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with medical patients and their families.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of medical patients and their families.

4. Outcomes for Educational Program

Example:

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of medical health and disease, including preventive care, common and complex conditions, and developmental disorders.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in internal medicine care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of medical assessments and interventions, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of medical conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in internal medicine care, prioritizing the well-being and rights of children.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in internal medicine.

5.Course Overview

Example :

- **The course is composed of two parts as follow:**

1.*Theoretical Part . 2. Practical part*

- **Duration**:

-For the theoretical part:

- Weekly Hours: 2 hours per week (first semester)
- Weekly Hours: 2 hours per week (second semester)
- Total 50 hours per academic year

For the practical part:

o Number of weekly hours: 3 hours

o Training duration: 23 weeks

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: al salam teaching hospital .

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning.

- *For the practical part.*
  - Clinical Rotations
  - Bedside Teaching
  - Case-Based Learning (CBL)
  - Problem-Based Learning (PBL)
  - Simulation Training
  - Skills Labs
  - Lectures and Seminars
  - Ward Rounds
  - Clinical Tutorials
  - Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course

Detailed Breakdown

Summative assessments:

- **Theoretical: 80 mark (20 marks for mid-year exam and 60 marks for final exam)**
- **(each exam consists of 80 single choice questions including problem solving cases)**
- **Clinical exam : 20 mark .at the end of clinical training course.**

- *-Pass/Fail Criteria*

  - **Pass Mark**: 50%
  - **Continuous Assessment,Examples**: Assignments, quizzes, presentations, peer evaluations.

Blueprint for 3rd year students, Medicine final exam

Cardinal manifestations of diseases:		**Percentage**	**No. of questions**	**Total questions**
1	History taking	1.66%	1	15
2	Chest pain	1.66%	1	
3	Manifestations of CVD disease	3.33%	2	
4	Edema & ascites	1.66%	1	
5	Jaundice	1.66%	1	
6	Manifestations of GIT diseases	1.66%	1	
7	Manifestations of CNS diseases 1	1.66%	1	
8	Manifestations of CNS diseases 2	1.66%	1	
9	Manifestations respiratory diseases	1.66%	1	
10	Manifestations renal diseases	1.66%	1	

11	Manifestations of blood disorders	1.66%	1	
12	Shock and anaphylaxis	1.66%	1	
13	Manifestations of musculoskeletal diseases	1.66%	1	
14	Manifestations of endocrine disorders	1.66%	1	
Infectious diseases		**Percentage**	**No. of questions**	**Total questions**
1	Principles of infectious diseases	1.66%	1	25
2	Diagnosis of infectious diseases	1.66%	1	
3	Fever	1.66%	1	
4,5	Acute infective diarrhea	3.33%	2	
6	Viral haemorrhagic fevers	1.66%	1	
7	Staphylococcus infections	3.33%	2	
8	Streptococcus infections	3.33%	2	
9	Brucellosis	3.33%	2	
10	Typhoid and paratyphoid fever	3.33%	2	
11	Tetanus	1.66%	1	
12	Rabies	1.66%	1	
13,14	Malaria	3.33%	2	
15	Toxoplasmosis	1.66%	1	
16	Visceral Leishmaniasis	1.66%	1	
17	Amebiasis & Giardiasis	1.66%	1	
18,19,20	Helminthic infections: Nematodes, Trematodes, Cestode.	5%	3	
21	HIV infections & AIDS	1.66%	1	
Obesity and nutrition		**Percentage**	**No. of questions**	**Total questions**

1	Nutritional factors in diseases	3.33%	2	8
2	Vitamin deficiency diseases	3.33%	2	
3	Mineral deficiency diseases	3.33%	2	
4	Under nutrition	1.66%	1	
5	Obesity	1.66%	1	
Electrolytes and acid base balance		**Percentage**	**No. of questions**	**Total questions**
1	Disorders of water and sodium balance 1	3.33%	2	8
2	Disorders of water and sodium balance 2	3.33%	2	
3-4	Hypokalemia / Hyperkalemia	5%	3	
5	Metabolic and respiratory acidosis	1.66%	1	
Critical illness/ acute medicine		**Percentage**	**No. of questions**	**Total questions**
1	Shock and anaphylaxis	3.33%	2	4
2	Sepsis and septic shock	3.33%	2	
total summation		100%	60	60

6.Instructional Objective of the lectures:

The lecture	objectives	Hours	Lecturer
History taking	Define the components of the medical history taking	1	Dr. Ahmed Moyaed
Chest pain	To be rapidly able to assess a patient complaining of acute chest pain To be able to formulate an accurate differential diagnosis for acute chest pain Discuss the cardiac causes of chest pain	1	Dr. Ahmed Moyaed
Manifestations of CVD disease	Discuss the common symptoms of cardiovascular diseases. Discuss the common causes and required investigations for each symptom.	1	Dr. Faris Mahmood
Edema & ascites	Definition of edema and ascites. Discuss the common causes of edema and ascites. Discuss briefly the required investigations	1	Dr. Faris Mahmood
jaundice	Define jaundice with its classification. Discuss the liver function test for establishing the cause. List the causes of jaundice	1	Dr. Ahmed Mohammed
Manifestations of GIT diseases	Discuss the common symptoms of gastrointestinal diseases. Discuss the common causes and required investigations for each	1	Dr. Ahmed Mohammed

	symptom.		
Manifestations of CNS diseases	Discuss the common symptoms of CNS diseases. Discuss the common causes and required investigations for each symptom.	2	Dr. Waseem Hashim
Manifestations respiratory diseases	Discuss the common symptoms of respiratory diseases. Discuss the common causes and required investigations for each symptom.	1	Dr. Ali Sattar
Manifestations renal diseases	Discuss the common symptoms of renal diseases. Discuss the common causes and required investigations for each symptom.	1	Dr. Ali Sattar
Manifestations of blood disorders	Discuss the common symptoms of hematological diseases. Discuss the common causes and required investigations for each symptom.	2	Dr. Bassam Ismail
Manifestations of endocrine disorders	Discuss the common symptoms of endocrine diseases. Discuss the common causes and required investigations for each symptom.	1	Dr. Alaa Mohamadl
Manifestations of musculoskeletal diseases	Discuss the common symptoms of musculoskeletal diseases. Discuss the common causes and required investigations for each symptom.	1	Dr. Abdullah Shakir
Principles of infectious diseases	Learn about the infectious agents, the chain of infection, pathogenesis of infectious	1	Dr. Jumana Khairaldeen

	disease, transmission of infection, infection prevention and control, and the treatment of infectious disease.		
Diagnosis of infectious diseases	Know the main Signs and symptoms of patients with suspected infectious disease, and the main investigations of infection.	1	Dr. Jumana Khairaldeen
Fever	Define fever, it's types ,main investigations and management Define PUO, it's etiology and how to investigate.	1	Dr. Jumana Khairaldeen
Acute infective diarrhea	Know the causes infectious diarrhea , ddx., how to assess and mange.	1	Dr. Jumana Khairaldeen
Viral haemorrhagic fevers	Know the causes and clinical features of haemorrhagic fever and how to investigate and manage a suspected patient.	1	Dr. Jumana Khairaldeen
Staphylococcus infections	Know the local and systemic infections caused by it with it's clinical manifestations and the main principles of mangement.	1	Dr. Jumana Khairaldeen
Streptococcus infections	Know the strept. related infections, clinical manifestations and main management.	1	Dr. Jumana Khairaldeen
Brucellosis	Recognize the mode of transmission, signs and symptoms , investigations and management.	1	Dr. Jumana Khairaldeen
Typhoid and paratyphoid fever	Knowtype of transmission clinical features, complications, investigations and management.	1	Dr. Jumana Khairaldeen
Tetanus	know the organism that cause the disease and it's mode of transmission, what are themain clinical features and how to manage & prevent this disease.	1	Dr. Jumana Khairaldeen
Rabies	know the organism that cause the disease & how the human get infection from it, know what are the main clinical features and	1	Dr. Jumana Khairaldeen

	how to manage& what are the pre &post exposure prophylaxis.		
Malaria	Explain the cause and pathogenesis of malaria. Point out the main clinical features and complications, demonstrate how to diagnose malaria and know the specific treatment and prevented measures.	1	Dr. Jumana Khairaldeen
Toxoplasmosis	Explain the cause and the mode of transmission. Point out the main clinical features, know the investigations and management.	1	Dr. Jumana Khairaldeen
Visceral Leishmaniasis	Know the cause of visceral leishmaniasis & how transmitted to human, know the clinical features &ddx. Of it , and the investigation with the specific management.	1	Dr. Jumana Khairaldeen
Amebiasis&Giardiasis	Know the cause and pathology , know the clinical features and investigations with the specific management.	1	Dr. Jumana Khairaldeen
Helminthic infections: Nematodes, Trematodes, Cestodes.	Know the main worms that cause disease in human , how it transmit, pathogenesis and know the clinical features & management.	1	Dr. Jumana Khairaldeen
HIV infections & AIDS	Know the mode of transmissions , risk factors of transmission, diagnosis and investigations. Know the clinical manifestations& common presenting problem in HIV infection and the clinical staging classifications.. outline the main treatment and preventive measures.	1	Dr. Jumana Khairaldeen
Nutritional factors in diseases	Describe the effect and clinical presentation of nutritional factors deficiency	1	Dr. Jumana Khairaldeen

Vitamin deficiency diseases	Describe the etiology, effect and clinical presentation of vitamins deficiency Discuss the diagnosis and management of each vitamin deficiency	1	Dr. Jumana Khairaldeen
Mineral deficiency diseases	Describe the etiology, effect and clinical presentation of minerals deficiency Discuss the diagnosis and management of each mineral deficiency	1	Dr. Jumana Khairaldeen
Under nutrition	Describe the etiology, effect and clinical presentation of Under nutrition Discuss the diagnosis and management of Under nutrition	1	Dr. Jumana Khairaldeen
Obesity	Describe the etiology, effect and clinical presentation of Obesity Discuss the diagnosis and management of it	1	Dr. Jumana Khairaldeen
Disorders of water and sodium balance	Explain general principles of disorders of water balance. Explain general principles of disorders of sodium balance. Recognize hyponatremia and hypernatremia	1	Dr. Jumana Khairaldeen
Hypokalemia	Describe the etiology and clinical presentation of hypokalemia. Describe laboratory findings Explain the treatment of hypokalemia	1	Dr. Jumana Khairaldeen
Hyperkalemia	Describe the etiology and clinical presentation of hyperkalemia. Describe laboratory findings Explain the treatment of hyperkalemia	1	Dr. Jumana Khairaldeen
Metabolic and	Explain normal acid-base	1	Dr. Jumana

respiratory acidosis	balance. Recognize metabolic and respiratory acidosis. Describe the clinical scenarios giving rise to acidosis disorders		Khairaldeen
Metabolic and respiratory alkalosis	Recognize metabolic and respiratory alkalosis. Describe the clinical scenarios giving rise to alkalosis disorders	1	Dr. Jumana Khairaldeen
Shock and anaphylaxis	Define shock. Recognize the types of shock. Correlate the pathophysiological changes with clinical features. Discuss monitoring and treatment of shock	1	Dr. Asim Abdalgani
Sepsis and septic shoch	Recognize that sepsis is medical emergency. Identify risk factors, signs and symptoms. How to recognize septic shock Discuss the management.	1	Dr. Asim Abdalgani

7.Instructional objectives of the clinical sessions:

Session title	No. Of sessions per weeks	Faculty member	Objectives
History taking	3 weeks	Medicine faculty staff	Define the components of the medical history taking, and discussing the most common symptoms that the patients can presented with it , Take a history from the patient. Report the taken history. Communicate with the patient on scientific and humanistic basis.
General examination	2 weeks	Medicine faculty staff	oAssess the temperature, pulse, respiration and blood pressure. oConduct general examination, examination of head, neck,lymph node examinaions and limbs, examination of the abdomen, chest and lung, and heart and vessels. oConduct simple neurological and locomotor

			examination examinations as tendon reflexes. oPick up the general physical signs as: pallor, cyanosis, jaundice, dyspnea, hyperventilation, clubbing, koilonychia, palmar erythema, petecheae, purpura, echymosis, edema, tremors,
CVS Examination	2 weeks	Medicine faculty staff	Educating the steps of cardiovascular system examination including inspection , palpation , auscultation
Respieratory examination	2 weeks	Medicine faculty staff	Educating the steps of Respiratory system examination including inspection , palpation ,percussion , auscultation
Abdomenal examination	2 weeks	Medicine faculty staff	Educating the steps of Abdomenal system examination including inspection , palpation ,percussion , auscultation
nervous system and locomotor system examination	2 weeks	Medicine faculty staff	Conduct simple neurological and locomotor examination examinations as tendon reflexes
procedures	2 weeks	Medicine faculty staff	o Conduct intramuscular injections, and describe the way intravenous, urethral, and nasogastric cannulation is done.
Revision and Summary	5 weeks	Medicine faculty staff	

8.Tables of the Course

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ – ٣.٣٠
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات A	الجزء النظري من الجانب العملي طفيليات B
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جراثيم A	الجزء النظري من الجانب العملي جراثيم B	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جراثيم عملي و	جراثيم عملي ي	جراثيم عملي د	الجزء النظري من الجانب العملي ادوية B
الاثنين	جراثيم عملي ج امراض عملي أ ادوية عملي ب	جراثيم عملي ب امراض عملي ج ادوية عملي أ	جراثيم عملي أ امراض عملي ب ادوية عملي ج	طفيليات عملي أ	طفيليات عملي ب	طفيليات عملي ج	الجزء النظري من الجانب العملي ادوية A
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جراثيم A		امراض A		طب مجتمع A	طب مجتمع عملي A	
	امراض B		جراثيم B		جراثيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	طب مجتمع عملي B	
	ادوية B		ادوية A		ادوية A	جراثيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

٩/١١

9.Learning Resources

Textbooks:

- Davidson's Principle and practice of Medicine
- Macleod’s clinical examination
- Kumar and clarck’s clinical medicine,
- Harrison’s principles of internal medicine,
- Up to date and Medscape website

10.Additional Information

Contact: [Instructor's email and phone number] مقرري الافرع او مسؤولي الشعب وحسب المادة

Waseem.qasim@uoninevah.edu.iq

Ali.jabbar@uoninevah.edu.iq

Location: فرع الطب الباطني

College of medicine _ Ninevah University

Fourth Year Curriculum

منهاج المرحلة الرابعة

المرحلة الرابعة								
	المادة	The Subject	النظري	العملي	السريري	المناقشة	عدد الوحدات	كود المادة
1	الجراحة	Suregery	90		96		9	421
2	الطب العدلي	Forensic Medicine	60	60			6	422
3	الطب الباطني	Internal Medicine	132		80		12	424
4	طب المجتمع	Community Medicine	105	120			11	425
5	اخلاقيات الطب	Medical Ethics	30				2	426
6	النسائية واتوليد	Gynecology &obstetric	60		80		7	427
7	العلوم السلوكية	Behavioral Sciences	30				2	428
		المجموع	**507**	**180**	**256**		**49**	

2023_2024

Surgery for the fourth year

1.General Information:

- **Subject**: surgery
- **Code**: (4 21)
- **Credit hours**: 9 units(90 theory + 96-hour practical)
- **Course Language**: English.

2.Syllabus:

Module: General surgery

1- Salivary Glands:

- Anatomy and physiology of Salivary Glands.
- Inflammatory conditions (sialadenitis, mucocele).
- Salivary gland tumors (benign and malignant).
- Salivary gland stones (sialolithiasis).
- Salivary gland infections (viral, bacterial).
- Autoimmune diseases affecting the salivary glands (Sjogren's syndrome).

2- Oral Cavity:

- Dental caries (cavities).
- Periodontal diseases (gingivitis, periodontitis).
- Halitosis (bad breath).
- Oral candidiasis (thrush).
- Oral ulcerations (canker sores).
- Tooth sensitivity.
- Infectious Diseases of the Oral Cavity.
- Cleft lip and palate.
- Oral Manifestations of Systemic Diseases.
- Oral Cancer.
- Leukoplakia.
- Erythroplakia.
- Oral lichen planus.
- Mucocele.

3- Neck Lymph Node Surgery:

- Cervical lymph nodes anatomy.

- Cervical lymphadenopathy: cause, approach.
- Acute cervical lymphadenopathy.
- Chronic cervical lymphadenopathy.
- Malignant cervical lymphadenopathy.
- Neck dissection.
- Neck lumps.
- Thyroglossal cysts.
- Cystic hygromas.
- Branchial cysts and fistula.
- Carotid body tumors.
- Neck trauma.

4- Omentum, Mesentery, and Retroperitoneal Space:

- Introduction and Anatomy.
- Peritonitis.
- Generalized.
- Localized: intraperitoneal abscesses, iliac abscess, pelvic abscess & subphrenic abscess.
- Special forms: T.B peritonitis.
- mesenteric neoplasms or cysts.
- acute mesenteric lymphadenitis.

5- Abdominal Hernias Surgery:

- General principles.
- Strangulated hernias.
- Anatomy of inguinal canal & spermatic cord.
- Inguinal hernia (direct & indirect).
- Femoral.
- Epigastric.
- Paraumbilical.
- Incisional.

6- Breast:

- Surgical anatomy of the breast.
- Investigation.
- Nipple disorders.
- Benign breast diseases.
- Breast cancer.
- Male breast disease.

7- Thyroid gland:

- Surgical anatomy of the thyroid gland.
- Investigation used in thyroid disease.
- Goiter management.
- Hyperthyroidism.
- Hypothyroidism.
- Solitary thyroid swelling.
- Thyroid surgery.
- Complications of thyroid surgery.
- Benign and malignant tumor of thyroid gland.

8- Intestinal obstruction:

- Etiology, pathology, Diagnosis.
- Acute mechanical obstruction.
- Adhesive.
- Strangulated hernia.
- Volvulus.
- Paralytic ileus.

9- Spleen:

- Anatomy & physiology.
- Congenital abnormalities.
- Rupture of spleen.
- Splenomegaly.
- Splenectomy.

10- Parathyroid glands:

- Anatomy & physiology of calcium metabolism.
- Hyperparathyroidism (types: primary, secondary, tertiary).
- Management.
- Hypoparathyroidism (causes, diagnosis, management).

11- Adrenal gland:

- Incidentaloma.
- Pheochromocytoma.
- Adrenalectomy.

12- Appendix:

- Anatomy.
- Acute appendicitis Etiology, pathology, Diagnosis, differential diagnosis, treatment & complications (appendix mass & abscess).
- Recurrent acute appendicitis.
- Appendectomy (indications and complications).
- Appendix Tumors.

13- Esophagus:

- Background (anatomy & physiology).
- Congenital abnormalities.
- Foreign bodies in the esophagus.
- Perforation.
- Mallory—Weiss syndrome.
- Corrosive injury.
- Gastro-esophageal reflux disease.
- Paraoesophageal (rolling) hiatus hernia.
- Neoplasms of the esophagus.
- Motility disorders and diverticula.
- Other no neoplastic conditions.

14- stomach & duodenum:

- Surgical anatomy& physiology.
- Investigations.
- Acute gastric dilatation.
- Peptic ulcer diseases.
- Gastric neoplasms.

15- Liver:

- Anatomy & physiology.
- Investigations.
- Traumas.
- Infections of liver
- Pyogenic abscess, Amebic abscess, Hydatid cysts.
- Tumors of liver Benign and Malignant.

16- biliary surgery:

- Anatomy & physiology.
- Congenital anomalies & variations.
- Gall stones.
- Cholecystitis.
- Post cholecystectomy syndromes.
- Obstructive jaundice.

17- Pancreas:

- Anatomy & physiology.
- Congenital anomalies.
- Injuries.
- Acute pancreatitis.
- Chronic pancreatitis.
- Tumors.

18- colon and rectum:

- Vascular anomalies angiodysplasia.
- Diverticular disease of colon.
- Inflammatory bowel diseases.
- Intestinal ischemia.
- Colorectal tumors.
- Rectum anatomy.
- Rectal prolapse.
- Proctitis.
- Rectal cancer.

19- Colostomy types & Indications.

20- War surgery.

Module: urology

1. **Urinary symptoms and investigation:**
   - symptoms of urinary tract diseases.
   - signs of urinary tract diseases.
   - investigations.
2. **Upper congenital anomalies:**

   - anomalies of renal number: unilateral and bilateral agenesis, supernumerary kidney
   - anomalies of renal ascent like horseshoe kidney

- anomalies of renal rotation
- anomalies of renal collecting system: bifid pelvis
- anomalies of renal parenchyma like polycystic kidney.
- anomalies of renal vasculature.
- anomalies of ureter: duplex ureter, ureterocele and megaureter.

3. **Renal tumor:**

- renal cyst
- benign renal tumor
- malignant renal tumor.
- transitional carcinoma of renal pelvis.

4. **Urinary stone:**

- renal stone.
- ureteric stone.
- vesical stone.
- urethral stone.

5. **Renal infection:**

- acute pyelonephritis
- tuberculosis of urinary tract.
- urinary tract in pregnancy.
- emphysematous pyelonephritis.
- xanthogranulomatous pyelonephritis.
- renal abscess.

6. **Hydronephrosis:**
   - unilateral ureteric obstruction.
   - bilateral ureteric obstruction.

7. **Upper urinary tract injury:**

- renal injury
- ureteric injury

8. **Renal transplantation:**

- renal Failure, causes, clinical features.
- types of donors for renal transplantation.
- types of rejection.

9. Bladder outlet obstruction:

- benign prostatic obstruction.

10. Prostatic cancer:

- Etiology, epidemiology, pathology, presentation, investigations, treatment.

11. Congenital anomalies of lower urinary tract:

- vesico-ureteric reflux.
- bladder exstrophy.
- hypospadias.
- epispadias.
- posterior urethral valve.
- urethral diverticulum.

12. Infection of lower urinary tract:

- Cystitis.
- Prostatitis.
- Urethritis.
- Fournier gangrene.
- Epididymio-orchitis.

13. Bladder tumor:

- transitional cell carcinomas.
- squamous cell carcinoma.
- Adenocarcinoma.

14. Urethral stricture and urinary diversion:

- indications: Temporary or Permanent.
- methods of urinary diversion.

15. Scrotal pathology:

- undescended testis.
- retractile testis.
- absent testis.
- hydrocele.

- varicocele.
- testicular torsion.
- epidydimal cyst.
- spermatocele.

16. Testicular tumor:

- Etiology, epidemiology, pathology, presentation, investigations, treatment.

17. Lower urinary tract injury:

- bladder injury.
- urethral injury.
- scrotal injury.

18. Neurogenic bladder:

- Anatomy, physiology, Classification, presentation, investigations, treatment, complications.

19. Male infertility:

- Male reproductive physiology, Epidemiology, causes, evaluation, investigations, treatment, Assisted reproductive technologies.

3.Learning Objective:

Module: General surgery

Knowledge

- Anatomy and Physiology: Understand the anatomy, physiology, and pathophysiology of common surgical conditions.
- Clinical Presentation: Recognize signs and symptoms, and distinguish between surgical and non-surgical treatments.
- Diagnostics: Identify and interpret appropriate diagnostic tests and imaging.
- Treatment Principles: Learn preoperative, intraoperative, and postoperative care principles, including complications.
- Emergency Management: Know how to manage surgical emergencies like trauma and sepsis.

- Surgical Ethics and Legal Issues: Understand ethical and legal issues, including informed consent and patient confidentiality.

Skills

- Clinical Skills: Conduct surgical histories, physical exams, and develop management plans.
- Procedural Skills: Perform basic surgical skills (suturing, wound care).
- Perioperative Care: Participate in preoperative and postoperative patient care.

Attitude

- Professionalism: Demonstrate professionalism and respect for patients and team members.
- Ethical Practice: Practice ethically with a focus on informed consent and patient confidentiality.
- Teamwork and Communication: Communicate effectively and work collaboratively with the healthcare team.
- Lifelong Learning: Commit to continuous learning and self-improvement.
- Patient-Centered Care: Prioritize patient safety, quality care, empathy, and compassion in patient interactions.

Module: Urology

Knowledge:

- Understand the anatomy and physiology of the genitourinary system, including the kidneys, ureters, bladder, urethra, and male reproductive organs.
- Explain the neural control of bladder function and micturition.
- Recognize and describe the etiology, pathophysiology, and clinical manifestations of common urological conditions such as urinary tract infections, kidney stones, benign prostatic hyperplasia, erectile dysfunction, and urinary incontinence.
- Understand the principles of diagnosis and management of urological emergencies including acute urinary retention, testicular torsion, and renal colic.
- Familiarize with the principles and indications of diagnostic tests used in urology, including urine analysis, imaging studies (ultrasound, CT, MRI), urodynamic studies, and cystoscopy.

- Understand the principles of medical and surgical management options for various urological conditions, including pharmacotherapy, minimally invasive procedures (e.g., lithotripsy), and major surgeries (e.g., radical prostatectomy, nephrectomy).

Skills:

- Develop proficiency in history taking and physical examination relevant to urology, including genitourinary examination, digital rectal examination, and scrotal examination.
- Demonstrate proficiency in interpreting common urological diagnostic tests, including urinalysis, renal ultrasound.
- Gain hands-on experience in performing basic urological procedures such as urinary catheterization.
- Develop basic procedural skills through simulation or supervised practice, including urinary catheter insertion and simple wound closure techniques.
- Enhance communication skills to effectively elicit sensitive information from patients regarding urological symptoms, sexual health, and urinary dysfunction.
- Practice clear and empathetic communication with patients, explaining urological conditions, diagnostic procedures, and treatment options in an understandable manner.

Attitude:

- Cultivate empathy and sensitivity towards patients presenting with urological conditions, recognizing the potential impact on their quality of life and emotional well-being.
- Respect patients' privacy and dignity during genitourinary examinations and procedures, ensuring a supportive and non-judgmental environment.
- Foster a patient-centered approach to urological care, involving patients in shared decision-making, respecting their preferences, values, and cultural beliefs.
- Recognize the importance of holistic care, addressing not only physical symptoms but also psychosocial and sexual health concerns of patients.
- Demonstrate professionalism in all interactions with patients, colleagues, and healthcare professionals, maintaining confidentiality, integrity, and respect for diversity.
- Adhere to ethical principles and legal regulations governing urological practice, including informed consent, patient confidentiality, and appropriate documentation.

4. Outcomes for Educational Program

Module: General surgery

Knowledge:

- **Comprehensive Understanding**: Graduates will have a thorough understanding of pediatric health and disease, including preventive care, common and complex conditions, and developmental disorders.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in surgical care.

Skills:

- **Clinical Competence**: Graduates will be proficient in performing a wide range of surgical patient assessments.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of surgical conditions.

Attitudes:

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in surgical care, prioritizing the well-being and rights of patients.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in surgery.

Module: Urology

Knowledge:

- Demonstrate comprehensive knowledge of urological anatomy, physiology, and pathology.
- Explain the etiology, pathogenesis, and clinical manifestations of common urological conditions.
- Acquire proficiency in interpreting common diagnostic tests used in urology, including urinalysis, imaging studies.
- Understand the rationale behind selecting appropriate diagnostic modalities for different urological presentations.

- Grasp the principles of both medical and surgical management options for urological conditions, including pharmacotherapy, minimally invasive procedures, and major surgical interventions.
- Comprehend the indications, contraindications, and potential complications associated with various treatment modalities.

Skills:

- Develop proficiency in conducting thorough urological history-taking and physical examinations.
- Demonstrate competency in performing basic urological procedures such as urinary catheterization and digital rectal examination.
- Enhance skills in interpreting diagnostic imaging studies and laboratory tests relevant to urology.
- Gain practical experience in recognizing common urological conditions based on clinical findings and diagnostic test results.
- Acquire basic procedural skills necessary for urological practice, including catheter insertion and wound care.

Attitude:

- Foster empathy and compassion towards patients with urological conditions, recognizing the psychosocial impact of these disorders.
- Embrace a patient-centered approach to care, prioritizing patients' preferences, values, and concerns in decision-making.
- Exhibit professionalism in all aspects of urological practice, including communication, teamwork, and ethical decision-making.
- Adhere to ethical principles and maintain patient confidentiality, respect, and dignity in interactions with patients and healthcare colleagues.
- Cultivate a commitment to lifelong learning and continuous professional development in the field of urology.
- Demonstrate readiness to engage in self-directed learning, stay updated with advancements in urological research and practice, and contribute to the improvement of patient care.

5.Course Overview

The course is composed of two parts as follow:

1. *Theoretical Part. 2. Practical part.*

- **Duration**:

For the theoretical part:

- Weekly Hours: 2 hours per week (first semester)
- Weekly Hours: 2 hours per week (second semester)
- Total: 90 hours per academic year

For the practical part:

- Weekly: 3 hour/week
- Total….96 hour

- **Location**:

-For the theoretical part: Lecture Hall at college campus.

-For the practical part: the students are divided into small groups each of 15-18 student. the clinical training in teaching hospitals (Al-Salam teaching hospital & Al-Jumhory teaching hospital) and PHC

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

-For the practical part.

- Clinical Rotations

- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Simulation Training
- Skills Labs
- Lectures
- Ward Rounds
- Clinical Tutorials
- Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams.
- **Summative Assessments**: Midterm exams, end term exams, OSCE.
- **Continuous Feedback**: Provided throughout the course.

-*Components of Assessment:*

- Written: midterm exams (20% of total grade)
- Clinical Course exam (20% of total grade)
- Written: end-term exam (60% of the total grade)

-*Detailed Breakdown*

- **Written Exams (80%)**:
  - Midterm Exam: 20% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs)
  - End term Exam: 60% (Comprehensive exam covering the entire course content, includes MCQs.
- **Clinical Examination (OSCE) (20%)**:
- Stations: Typically includes 1 station, assessing clinical skill (e.g., history taking, physical examination, communication, and procedural skills). station is scored out of 20 marks.

-Pass/Fail Criteria

- **Pass Mark**: 50%
- **Continuous Assessment**

  -Examples: Assignments, quizzes, presentations, peer evaluations.
- **Blueprints of final exam (Total 100)**

Unit	Remembering	Understanding	Problem solving	Total
General surgery	**20**	**30**	**10**	**60**
Urology	**15**	**17**	**8**	**40**

6.Instructional Objective of the lectures:

Module: General surgery:

Lecture title	No. of lectures	Faculty member	Instructional objectives
Salivary glands disorders	**2**	**Dr. Ashraf M. AL shaker**	• The surgical anatomy of the salivary glands • The presentation, pathology and investigation of salivary gland disease • The medical and surgical treatment of stones, infections and tumors that affect salivary glands
Oral cavity and tongue disorder	**4**	**Dr. Ashraf M. AL shaker**	• Understand the anatomy and physiology of the oral cavity and tongue. • Identify common and uncommon disorders of the oral cavity and tongue.

			• Describe the etiology and pathophysiology of oral cavity and tongue disorders. • Perform clinical evaluations and diagnose disorders of the oral cavity and tongue. • Develop and implement treatment plans for various oral cavity and tongue disorders. • Understand the impact of systemic diseases on oral health. • Demonstrate effective communication skills in discussing oral health issues with patients. • Stay updated with current research and advancements in the field of oral health.
Peritoneum, mesentery and retroperitoneal space	**3**	**Dr. Ashraf M. AL shaker**	• The causes and complications of localized and generalized peritonitis • The clinical features of peritonitis and intraperitoneal abscess • The principles of surgical management in patients with peritonitis and intraperitoneal abscess • The causes and pathophysiology of ascites • The pathophysiology and complications of adhesion formation.
Abdominal wall hernia	**4**	**Dr. Ashraf M. AL shaker**	To know and understand: • Basic anatomy of the abdominal wall and its weaknesses. • Causes of abdominal hernia. • Types of hernia and classifications.

			• Clinical history and examination findings in hernia. • Complications of abdominal hernia. • Non-surgical and surgical management of hernia– including mesh. • Complications of hernia surgery. • Other abdominal wall conditions.
Neck surgery	**2**	**Dr. Ashraf M. AL shaker**	• To know the anatomical relation of various neck problem. • to know how differentiate between different neck diseases that some time sharing the same complaint. • how to set up a proper plan of management.
Breast Diseases	**5**	**Dr. Yahya Zakaria**	To understand: • Appropriate investigation of breast disease • Breast anomalies and the complexity of benign breast disease The in-depth modern management of breast cancer
Thyroid diseases	**4**	**Dr. Yahya Zakaria**	To understand the development and anatomy of the thyroid gland • To know the physiology and investigation of thyroid function • To be able to select appropriate investigations for thyroid swellings • To know how to treat thyrotoxicosis and

			thyroid failure • To know when to operate on a thyroid swelling • To describe thyroid lobectomy To know the risks and complications of thyroid and parathyroid surgery.
Intestinal obstruction	**2**	**Dr. Saad Muwafaq Attash**	• To define intestinal obstruction • To describe the types, causes and management
Spleen	**2**	**Dr. Saad Muwafaq Attash**	• To define the anatomy physiology and pathologies of the spleen • To describe splenectomy.
Parathyroid gland	**2**	**Dr. Saad Muwafaq Attash**	• To define the anatomy physiology and pathologies of the parathyroid glands • To describe hyper and hypo parathyroid
Adrenal gland	**1**	**Dr. Saad Muwafaq Attash**	• To define the anatomy physiology and pathologies of the adrenal gland.
Appendix & Appendicitis	**2**	**Dr. Mohammed Hisham**	• Discuss: Incidence, pathology, clinically (Symptoms & Signs) according to positions & according to age. • Discuss: Rare Differential diagnosis, Investigations, Alvarado Score, TreatmentAppendectomy / Laparoscopic, Appendix Abscess, Postoperative complication, Appendix mass, Appendicular neoplasm.
Small Bowel, Large Bowel & Rectum	**2**	**Dr. Mohammed Hisham**	• Anatomy, Blood Supply, innervation, Preoperative preparation for elective surgery, mechanical & chemical, operative procedures, Intestinal Stomas,

			& Types.
	2	**Dr. Mohammed Hisham**	• Indication of Permanent Colostomy, Colostomy complications, Intestinal Trauma (Blunt & Penetrating), Sequelae of Intestinal Trauma, Clinical picture of intestinal trauma (Investigation & Treatment), Intestinal fistula, Failure of an intestinal anastomosis causes, classification &complication, Management & Definitive treatment, Causes of non-healing fistula.
	2	**Dr. Mohammed Hisham**	• Intestinal Diverticula, Meckel's diverticulum (clinical picture, complications & treatment, Diverticular disease of the colon, Inflammatory bowel disease, • Ulcerative colitis: (pathology, Complication, Extra-Intestinal), clinical picture, Toxic Megacolon clinical picture investigation & treatment Surgical Treatment, • Crohn's Disease (Etiology, pathology, clinically, complication, investigations) Treatment, Surgery in Crohn's Disease.
	1	**Dr. Mohammed Hisham**	• Intestinal T.B., Types & Clinical Picture. Surgical complication of Typhoid and Paratyphoid & Complications, Bilharzial Colitis, Possible Complication & Clinical Picture. • Intestinal Ischemia: Acute Intestinal Ischemia. Etiology, Pathology, Clinically, Differential, Investigation & Treatment
Anal & anal canal	**2**	**Dr. Mohammed Hisham**	• Anatomy & physiology. • Pruritus ani. • Pilonidal sinus.

			• Anal fissure. • Hemorrhoids. • Anorectal abscess. • Anal fistulae. • Malignant Anal tumors.
War Surgery	**1**	**Dr. Mohammed Hisham**	• The Aim of war surgery, The outcome, First Aid ABCDE, Basic Treatment (Airway) & Evacuation.
LIVER	**2**	**Dr. Wissam Saoud**	• The anatomy of the liver • The signs of acute and chronic liver disease • The investigation of liver disease • The management of liver trauma • The management of liver infections. • The management of hepatocellular carcinoma. • The management of colorectal liver metastasis.
Pancreas	**1**	**Dr. Wissam Saoud**	• The anatomy and physiology of the pancreas • Investigations of the pancreas • Congenital abnormalities of the pancreas • Assessment and management of pancreatitis • Diagnosis and treatment of pancreatic cancer
Gall bladder and bile ducts	**4**	**Dr. Wissam Saoud**	• To understand the anatomy and physiology of the gallbladder and bile

			ducts • To be familiar with the management of gallstones • To be aware of malignant disease of the gallbladder and bile ducts
Colon and rectum	**4**	**Dr. Wissam Saoud**	• The principles of investigation of large intestinal Symptoms • The principles of managements of colorectal benign and malignant conditions.
Esophageal disorder	**3**	**Dr. Taha alsiegh**	• To provide a thorough understanding of the anatomy, physiology, and pathology of the esophagus. • To develop proficiency in diagnostic techniques related to esophageal conditions. • To teach the principles and techniques of esophageal surgery. • To enhance skills in perioperative management and postoperative care. • To foster a commitment to continuous learning and professional development in esophageal surgery.
Stomach and duodenum	**3**	**Dr. Taha alsiegh**	To understand: • The gross and microscopic anatomy and pathophysiology of the stomach and duodenum. • The critical importance of gastritis and Helicobacter pylori in upper gastrointestinal disease. • The causes of duodenal obstruction and the presentation of duodenal tumors

Module: Urology

Lecture title	No. Of lectures	Faculty member	Instructional objective
Urinary symptomatology and investigation	**2**	**Dr. Mohammad Fawzi**	• Main urinary symptom and signs. • Types of urine examination. • Main radiological investigation used for urological problems.
Congenital anomaly of upper urinary tract	**2**	**Dr. Alaa Jameel**	• What is the main congenital anomaly of kidney and ureter. • What is the main presentation of the anomaly. • How can we diagnose the anomaly? • What is the complication of the anomaly. • What is the treatment.
Renal tumors and cystic disease of the kidney	**2**	**Dr. Moamen Junaid**	• Identify the main presentations of renal mass. • Describe the main investigations used for diagnosis of renal mass. • Identify the main types of renal masses. • Describe the staging system for renal cell carcinoma (RCC). • Identify the main indications and methods of treatment of renal cell carcinoma (RCC). • Identify the diagnosis and the main indications and methods of treatment of upper transitional cell carcinoma (UTCC). • Identify the diagnosis and the main indications and methods of

			treatment of Wilms tumor • Describe the main investigations used for diagnosis of renal cyst. • o Identify the main indications and methods of treatment of renal cystic disease.
Urinary stone disease	**3**	**Dr. Azzawi Mustafa**	• Identify the main presentations of urinary stone disease. • Describe the main investigations used for diagnosis of urinary stone disease. • Recognize the main aims of the treatment for stone disease. • Identify the main indications and methods of treatment of urinary stone diseases (renal, ureteric, and bladder). • Recognize the indications contraindications and complications of extracorporeal shock waves lithotripsy (ESWL). • o Describe the indications, advantages and complications of percutaneous nephrolithotomy (PCNL).
Renal infection	**2**	**Dr. Moamen Junaid**	• What are the main precipitation factors for UTI. • What is the main defense mechanism against UTI. • types of renal infections. • What is the clinical picture of acute pyelonephritis. • o What are the investigations and treatment of patient with acute pyelonephritis.
Hydronephrosis	**2**	**Dr. Azzawi**	• What is the definition and types of hydronephrosis.

		Mustafa	• What is the cause of unilateral and bilateral hydronephrosis. • o What are the investigations used for the diagnosis of hydronephrosis?
Renal and ureteric injury	**2**	**Dr. Alaa Jameel**	• the causes of renal and ureteric injury. • Grading of renal injury and types of ureteric injury. • the presentations of injury. • the diagnostic procedures for detection and grading for injury. • o Management of different types of renal and ureteric injury.
Renal transplantation	**1**	**Dr. Mohammed Fawzi**	• Definition, causes and management of end stage renal disease (ESRD) • Evaluation of donor and recipient in renal transplantation • Types of donors • Brief description of surgical procedures • Types of post-transplant rejection and management • Complication of renal transplantation
Bladder outlet obstruction and benign prostatic hyperplasia	**1**	**Dr. Mohammed Fawzi**	• Identify the main presentations of prostatic disease. • Describe the main investigations used for diagnosis of prostatic disease. • Recognize the main aims of the treatment for benign prostatic hyperplasia. • Identify the main indications and methods of treatment of benign prostatic hyperplasia. Medical, surgical, non-medical non-surgical. • o Recognize the indications

			contraindications and complications of transurethral prostatectomy (TURP).
Carcinoma of prostate	**1**	**dr. Azzawi Mustafa**	• Recognize the main aims of the treatment for prostatic cancer. • Describe the main investigations used for diagnosis of prostatic cancer. • Describe the staging system for prostatic cancer. • Identify the main indications and methods of treatment of prostatic cancer. • o Outline the presentation and management of prostatitis (acute and chronic).
Congenital anomaly of lower urinary tract	**2**	**Dr. Moamen Junaid**	• Types of congenital anomaly in lower urinary tract. • Types of hypospadias and treatment. • Definition of bladder exstrophy and management. • Definition of undescended testis, complications and its management. • o Definition of VUR, investigation and treatment option available for management.
Lower urinary tract infection	**2**	**Dr. Alaa Jameel**	• Definitions. • Factors That Suggest a Complicated Urinary Tract Infection. • Routes of Infection. • Urinary Pathogens. • Symptoms, examination, diagnosis. • Risk Factors for Urinary Tract Infections • Cystitis, prostatitis, urethritis.

bladder tumor	**1**	**Dr. Mohammad Fawzi**	• What is the predisposing factor for bladder tumor. • What are the pathological types of bladder tumor. • What is the main presentation of bladder tumor. • What the investigation needed for the patient suspected to have bladder tumor. • What is the staging of bladder tumor. • o What is the treatment of superficial and deep type bladder tumor.
Urethral stricture and retention of urine and urinary diversion	**1**	**Dr. Mohammad Fawzi**	• Cause, presentations, diagnosis and treatment of urethral strictures. • Types and complications of urinary diversion. • Causes of acute retention of urine. • the differences between acute and chronic urinary retention. • o Treatment of retention of urine.
Scrotal swelling	**1**	**Dr. Alaa Jameel**	• What are the painful and painless scrotal swelling. • Define hydrocele, what types you know, how to firm the diagnosis and treatment of each types. • Define varicocele, complication and treatment method and indication of surgery. • Describe a patient with testicular torsion. • o How would you confirm the diagnosis of testicular torsion and its treatment.
Testicular tumor	**1**	**Dr. Alaa Jameel**	• What is the classification of testicular treatment.

			• What is the presentation of testicular tumor. • What is investigation should be send for patient with testicular tumor. • o What is the treatment for each types of testicular tumor.
urethral and bladder injury	**1**	**Dr. Mohammad Fawzi**	• Anatomy of male urethra and bladder. • Types of urethral injury and bladder injury. • Main cause of urethral and bladder injury. • How to confirm the diagnosis of urethral and bladder injury. • o Management of urethral and bladder injury.
Neurogenic bladder And incontinence	**2**	**Dr. Alaa Jameel**	• Identify the anatomy and physiology of bladder neural control. • Identify the main presentations of neurogenic bladder. • Describe the main investigations used for diagnosis of neurogenic bladder. • Recognize the main indications and methods of treatment of neurogenic bladder. • o Outline complications and health burden of neurogenic bladder.
Male infertility	**1**	**Dr. Mohammad Fawzi**	• Definition of male infertility and main causes. • Investigations needed for patient with infertility. • Medical management of male infertility. • o Surgical management of male infertility.

7.Instructional objectives of the clinical sessions:

Session title	No. Of sessions	Faculty member	Instructional objective
History taking	**First week**	Surgery department member	• Understand the purpose and components of a medical history. • Develop effective communication and active listening skills. • Conduct and document thorough patient histories. • Analyze patient information for diagnosis and management. • Demonstrate professionalism, empathy, and ethical conduct. • Engage in continuous improvement through feedback and reflection.
General examination	**Second week**	Surgery department member	Basic Skills of physical examination • Pulse examination & Blood pressure examination • Signs of anemia • Signs of dehydration • Signs of cyanosis • Signs of jaundice • Level of consciousness

Abdominal examination	**Third week** **And** **Fourth week**	Surgery department member	• ensure they understand the purpose and components of the examination, including inspection, auscultation, percussion, and palpation. • Students should identify normal and abnormal findings, such as masses, scars, distension, and abnormal sounds. • They need to practice effective percussion to assess for gas and fluid, check liver size, and identify splenic enlargement. • Proficiency in light and deep palpation to detect tenderness, guarding, organ enlargement, and masses is essential. • Students should also perform special tests like Murphy's sign for cholecystitis and assess for appendicitis and ascites. • Ensuring patient comfort and clear communication is crucial. • students should accurately document findings and begin interpreting them within clinical contexts. • Surgical incisions. • Stomas and colostomies • Palpate for hepatomegaly and how to measure liver span

			• Palpate for splenomegaly • Palpate for kidneys
Chest examination	**fifth week**	Surgery department member	• Undergraduate students in a surgery course should learn to perform a chest examination by understanding anatomical landmarks and recognizing normal and abnormal findings. • They should be able to systematically inspect, palpate, percuss, and auscultate the chest, identifying any abnormalities in breath. **Discuss important point in** Position of trachea, Chest deformity desertion, Chest expansion, Signs of pneumothorax, Signs of pleural effusion
Head & neck examination **Lymph node examination**	**sixth week**	Surgery department member	• should learn to perform a head and neck examination. This involves understanding the anatomy of the head and neck, recognizing normal and abnormal findings, and demonstrating effective examination techniques. Students must be able to systematically inspect, palpate, percuss (if applicable), and auscultate the head and neck,

			identifying abnormalities in structures such as the skull, face, neck, and thyroid gland. • Cervical lymph nodes. • Examination of other neck masses (parotid, submandibular).
Breast examination	**seventh week**	Surgery department member	• Understand breast anatomy and examination techniques. • Perform a systematic breast examination, including inspection, palpation, and assessment of lymph nodes.
Vascular examination	**eighth week**	Surgery department member	Ulcers • Describe shape and deformity • Signs of chronic ischemia • Peripheral pulsations • Examination for foot ulcers • Examination for super facial and deep sensations. • Signs of DVT • Signs of varicose veins • Physical examination of lower limbs
Scrotum & hernia exam	**Ninth week**	Surgery department member	• Signs of hernia • Inguinal masses • Examination of genitalia • Physical examination of abdomen and genitalia • Inspection for hernia

					orifices and cough impulse
instruments **And stoma** **And surgical incision**	**Tenth week**	Surgery department member	• Describe colostomy (stoma) and its types • Describe the types of drains. • Describe the types of surgical incision.		

8.Tables of the Course

جدول الدوام العملي للصف الرابع للعام الدراسي 2023 - 2024

Topic	G8	G7	G6	G5	G4	G3	G2	G1	wk
History	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	.1
General ex.	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	.2
Abdominal ex	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	د. أحمد الصراف	.3
Chest exam	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	.4
Head and neck exam	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	.5
Breast exam	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	.6
Vascular exam	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	.7
Lymph nodes	د.طه حسن	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	.8
Scrotum and hernia	د. رغد رياض	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	.9
DRE	د. أحمد الصراف	د. اشرف مزاحم	د.محمد هشام	د. سعد موفق	د.وسام سعود	د.يحيى ضبيان	د.طه حسن	د. رغد رياض	.10

Objectives:

1. **Perform a Grand Tour in the surgical words.**
2. **Apply the proper history taking.**
3. **Demonstration of proper physical examination.**
4. **Description of physical signs.**
5. **Recognize the significance of presence or absence of physical signs that could be detected by examination.**
6. **Apply the clinical skills by the students.**
7. **Discuss the significance of the findings and its relation to the disease progression.**

الكتاب المعتمد للتدريب هو

Browse's Introduction To The Symptoms And Signs Of Surgical Disease.

9.Learning Resources

Textbooks: Baily and Love's Textbook / Short Practice of Surgery

Brows Textbook of Clinical examination.

10.Additional Information

Contact: Dr. Alaa Jameel Turki

Alaa.turki@uoninevah.edu.iq

Location: surgery department

11.Appendix

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠- ٣,٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ٢				طب مجتمع ٢	طب مجتمع عملي٢	
	طب مجتمع ١		طب مجتمع عملي١	باطنية ١			
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ١		طب عدلي ١		اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢	باطنية ٢		
الخميس	جراحة ١		باطنية ١		توليد ١		اخلاقيات الطب ٢
	توليد ٢		جراحة ٢		طب عدلي ٢		

يكون الدوام في القاعات الدراسية كالاتي :

يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .

يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر

يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

Chick list ✔ ☑ for history taking / 6th year **ألأسم الثلاثي:**

Analysis of abdominal pain

Question should be asked	score	Mark
1-Introduce yourself, take permission		1
2- start with, name, age, occupation, etc.		1
3-Chief complaint (how to ask about it)		2
4-analysis of chief complaint including: Duration of pain (precise times, hrs, days before admission)		1
5-Site of maximum pain (which quadrant)		1
6-Onset (sudden, gradual)		1
7-Severity (how to assess severity)		1
8-Character of pain (stab, dull, colicky...etc)		1
9-Associated symptoms (vomiting, fever, diarrhoea, etc)		1
10-Aggravating factors (what increase pain as patient describe)		1
11-Relieving factors (what relieve the pain, not relieved...etc)		1
12-Radiation (stay in same place, start in place then radiate to another site.)		1
13-Fate (how the ends, spontaneous, surgery, treatment...etc.)		1
14-Review of other system (GUS, respiratory system, CVS, CNS...etc.)		1
15- past medical history.		1
16- past surgical history		1
17- drug history.		1
18- Social history		1
19-end history, thank the patient.		1
Total		20

Examiner: - **Examiner: -**

Forensic Medicine and toxicology curriculum for fourth year

1.General Information:

- **Subject**: Forensic medicine and Toxicology
- **Code**: (4 22)

  Credit hours: 6 units:(For the theoretical part: 60 total hours (45 hours Forensic medicine , 15 Toxicology) and For the practical part:Total 60 hours)
- **Course Language**: Forensic Medicine : Arabic / Toxicology : English

2.Syllabus:

-Introduction with a Historical Overview of Forensic Medicine

- Forensic Medical Systems

- Death and its Signs

- Confirmatory Signs of Death

- Biochemical Changes in Blood and Other Fluids

- Wounds and Their Types

- Consequences of Wounds

- Causes of Death in Wounds

- Road Accidents

- Train Accidents

- Distinctive Features of Injuries in Different Body Areas

- Head Injuries

- Injuries to Head Appendages

- Heat Injuries and Burns

- Electrical Injuries

- Asphyxiation

- Suffocation and Strangulation

- Hanging

- Drowning

- Sudden Death

- Deaths from Surgical Operations and General Anesthesia

- Pediatric Forensic Medicine

- Identification

- Identification of Thread Marks

- Age Estimation

- Paternity Tests and DNA Fingerprinting

- Sexual Assaults

- Bloodstains

- Forensic Medical Reports

-Introduction To Toxicology

-Divisions of toxicology

-Toxicokinetic

-How Does Toxicity Develop, How Does The Poisoned Patient Die

-Management of the Poisoned Patient

-Toxic Potential of Over-the-Counter Agents

-Drug Toxicity In Pregnancy

-Acetaminophen (Paracetamol) toxicity

-Salicylate Toxicity

-Tricyclic Antidepressants Toxicity

-Benzodiazepine Toxicity

-Alcohol Intoxication

3.Learning Objective:

Knowledge:

1. Understand the principles and scope of forensic medicine and toxicology, including identification, death investigation, and injury analysis.
2. Explain the mechanisms and forensic implications of toxicological substances such as alcohol, paracetamol, aspirin, TCA, and organophosphates.
3. Comprehend the forensic investigation of special cases like sudden death, sexual offenses, and child abuse.

Skills:

1. Perform forensic dissection methods and evidence collection accurately.
2. Prepare and interpret forensic medical reports.
3. Apply techniques for the forensic estimation of age and identification of individuals.

Attitudes:

1. Maintain professionalism and objectivity in forensic investigations.
2. Commit to ethical practices and accuracy in forensic reporting.
3. Show empathy and respect for victims while conducting forensic investigations.

4. Outcomes for Educational Program

Knowledge:

1. **Foundational Knowledge in Forensic Medicine:**

- Graduates will possess the foundational knowledge required of a newly graduated doctor in forensic medicine, understanding the principles, history, and applications of the field.

2. **Specialized Knowledge in Toxicology:**

- Graduates will be equipped with the necessary information in specialized branches such as toxicology, including the mechanisms of toxicity, toxicokinetics, and the toxic potential of various substances.

3. **Forensic Medical Ethics:**

- Graduates will understand the forensic aspects of medical ethics, ensuring they can navigate the ethical dilemmas that may arise in forensic practice.

Skills:

1. **Forensic Medical Reports:**

- Graduates will be able to explain and apply the main principles of writing comprehensive and accurate forensic medical reports, documenting findings clearly and objectively.

2. **Age Estimation and Identification Techniques:**

- Graduates will be proficient in the principal techniques used for the forensic estimation of age and the identification of individuals, utilizing methods such as dental analysis, skeletal assessment, and DNA profiling.

Attitudes:

1. **Empathy and Compassion:**

- Graduates will exhibit empathy and compassion in their interactions with patients and their families, particularly in sensitive situations involving trauma or death.

2. **Professionalism:**

- Graduates will demonstrate professional behavior, including punctuality, respect, and ethical decision-making, maintaining the highest standards of integrity in their forensic practice.

3. **Cultural Sensitivity:**

- Graduates will show cultural sensitivity and respect for the diverse backgrounds of patients and their families, ensuring that their forensic practice is inclusive and respectful of all individuals.

These outcomes ensure that graduates are well-prepared for careers in forensic medicine and toxicology, equipped with the necessary knowledge, skills, and attitudes to perform their duties effectively and ethically.

5.Course overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- 60 total hours (45 hours Forensic medicine , 15 Toxicology)

For the practical part:

- Total 60 hours

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: Lecture halls

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

-For the practical part.

- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Simulation Training
- Lectures and Seminars
- Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, …ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System .**

-*Components of Assessment:*

- Written Exams (80% of total grade)

- Practical exam and quizzes (20% of total grade)

-Detailed Breakdown

- **Written Exams (80%)**:
  - Midterm Exam: 37.5% (Covers topics from the first half of the course, includes mainly multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
  - End term Exam: 62.5 % (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)
- **Practical Exams (20%)**:
  - Midterm50%
  - End term practical exam 50%

-Pass/Fail Criteria

- **Pass Mark**: 50%
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations, peer evaluations.
- **Blueprints Forensic Medicine and toxicology blue print for final exam 2023-2024 (First Trial :**

MCQ= Total 100 MCQ

Subject	Remembering questions	Understanding questions	Problem solving questions
Forensic Medicine	50	15	5
Toxicology	20	8	2
Total	70	23	7

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Introduction with a Historical Overview of Forensic Medicine	1	**Dr. Sura Obey**	Provide students with a comprehensive understanding of the concept of forensic medicine and its historical development, the lecture aims to clarify the basics and key concepts of forensic medicine. It will highlight the most significant historical milestones that have influenced its evolution and review the role of forensic medicine in the legal and judicial system throughout the ages.
	- Forensic Medical Systems	**1**	**Dr. Sura Obey**	introduce students to the systems and procedures adopted in forensic medicine, the lecture aims to explain how forensic medicine is organized and applied within different legal systems. clarify the legal and regulatory frameworks governing the practice of forensic medicine. The lecture will also highlight the role of forensic medicine in criminal investigations and judicial procedures, as well as review how forensic evidence and medical reports are handled in a legal context.
	- Death and its Signs	**2**	**Dr. Sura Obey**	Introduce students to the fundamental concepts related to death and the associated medical signs, the lecture aims to teach how to determine the time and causes of death by examining various physical and chemical indicators. It will review postmortem changes such as rigor mortis, livor mortis, and the

				decrease in body temperature. The lecture will also highlight the importance of these signs in forensic investigations and their role in determining the circumstances surrounding death.
	- Confirmatory Signs of Death	**3**	**Dr. Sura Obey**	Highlight the signs that appear after death and assist in its diagnosis, the lecture will cover postmortem changes such as livor mortis, which manifests as discoloration in the lower, dependent parts of the body after death. This information helps confirm the occurrence of death and guides forensic medical investigations.
	- Biochemical Changes in Blood and Other Fluids	**2**	**Dr. Sura Obey**	Highlight the chemical reactions that occur in the human body after death, the lecture will cover changes in the concentrations of biochemical substances such as glucose, urea, enzymes, and proteins. This knowledge is crucial for a better understanding of biological processes and forensic medical analysis.
	- Wounds and Their Types	**4**	**Dr. Hadeel Tahseen**	highlight the different types of wounds and how to manage them, the lecture will cover various wound classifications, including incised, lacerated, puncture, and abrasion wounds. It will also address the appropriate medical and forensic approaches for treating and documenting these injuries.
	- Consequences of Wounds	**1**	**Dr. Hadeel Tahseen**	Highlight the physical changes that occur in the body after an injury, the lecture will discuss the physiological and pathological responses, such as inflammation, swelling, bruising, and tissue damage. It will also cover

				the healing process and the factors that can influence the severity and recovery of injuries.
	- Causes of Death in Wounds	**1**	**Dr. Hadeel Tahseen**	Understand the factors that can lead to a person's death after sustaining injuries, the lecture will examine various critical aspects such as the severity and location of the wounds, blood loss, infection, and the body's physiological response to trauma. It will also cover how pre-existing medical conditions and the timely and adequacy of medical intervention can influence the outcome.
	- Road Accidents	**1**	**Dr.Shatha Thanon**	To understand the causes and challenges related to traffic accidents, the lecture will analyze injuries and determine the causes of death associated with road accidents. It will cover the mechanics of injuries, the impact of speed and safety measures, and the role of alcohol and drugs. The lecture will also address the challenges in investigating and reconstructing traffic accidents for forensic purposes.
	- Train Accidents	**1**	**Dr.Shatha Thanon**	Understand the causes and challenges related to railway accidents, the lecture will analyze injuries and determine the causes of death associated with train accidents. It will cover the mechanics of injuries, the impact of speed and collision, and the role of human error and mechanical failure. The lecture will also address the challenges in investigating and reconstructing train accidents for forensic purposes.

	- Distinctive Features of Injuries in Different Body Areas	**1**	**Dr.Shatha Thanon**	Highlight the unique characteristics of injuries in different parts of the human body, this lecture will help recent graduates in identifying the cause of injuries and provide the necessary guidance for treatment and medical reporting. It will cover the specific anatomical and physiological aspects of various body regions, the typical injury patterns associated with each area, and the implications for diagnosis and forensic analysis.
	- Head Injuries	**1**	**Dr.Shatha Thanon**	Understand the forensic medical aspects related to injuries in the head and its appendages, the lecture will cover the anatomy and physiology of the head, common types of head injuries such as concussions, skull fractures, and brain injuries, and the mechanisms of these injuries. It will also address the forensic implications, including the assessment of injury severity, determination of cause, and the role of head injuries in legal and criminal investigations.
	- Injuries to Head Appendages	**1**	**Dr.Shatha Thanon**	Understand the forensic medical aspects related to injuries in the head and its appendages, the lecture will cover the anatomy and physiology of the head, common types of head injuries such as concussions, skull fractures, and brain injuries, and the mechanisms of these injuries. It will also address the forensic implications, including the assessment of injury severity, determination of cause, and the role of head injuries in legal and criminal

				investigations.
	- Heat Injuries and Burns	**2**	**Dr.Shatha Thanon**	Explore the specific effects of heat-related injuries and burns on the human body from a forensic perspective, the lecture will examine the various degrees and types of burns, the physiological and pathological responses to thermal injuries, and the mechanisms of heat damage. It will also discuss the forensic investigation of burn injuries, including determining the cause and origin of burns, differentiating between accidental and intentional burns, and the role of heat-related injuries in legal and criminal contexts.
	- Electrical Injuries	**1**	**Dr.Arwa Albarhawi**	Understand the specific effects of heat-related injuries and burns on the human body from a forensic perspective, the lecture will cover the different degrees and types of burns, the physiological and pathological responses to thermal injuries, and the mechanisms of heat damage. It will also address the forensic investigation of burn injuries, including determining the cause and origin of burns, distinguishing between accidental and intentional burns, and the implications of heat-related injuries in legal and criminal contexts.
	- Asphyxiation	**1**	**Dr.Arwa Albarhawi**	Highlight asphyxiation, its definition, and types from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Asphyxiation:** An overview of

				what constitutes asphyxiation and its basic mechanisms. 2. **Types of Asphyxiation:** - **Mechanical Asphyxiation:** Including strangulation, suffocation, and compression of the chest. - **Chemical Asphyxiation:** Caused by inhalation of toxic substances like carbon monoxide or cyanide. - **Environmental Asphyxiation:** Resulting from lack of oxygen in the environment, such as in confined spaces. 3. **Medical Perspective:** - **Pathophysiology:** How asphyxiation affects the body, including hypoxia and organ damage. - **Signs and Symptoms:** Physical indicators that suggest asphyxiation, such as petechial hemorrhages, cyanosis, and congestion. 4. **Legal Perspective:** - **Determining Cause of Death:** How forensic experts determine asphyxiation as the cause of death. - **Criminal Investigation:** The role of forensic medicine in investigating potential

				homicide, suicide, or accidental deaths involving asphyxiation. - **Evidence Collection:** Gathering and analyzing evidence, such as marks on the body, toxicological tests, and environmental factors. 5. **Case Studies:** Reviewing real-life cases to illustrate the application of medical and legal principles in asphyxiation-related investigations.
	- Suffocation and Strangulation	**1**	**Dr.Arwa Albarhawi**	Understand suffocation as a type of asphyxiation and define it from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Suffocation:** - **Medical Definition:** Suffocation occurs when airflow to the lungs is obstructed, leading to oxygen deprivation and potentially death. - **Legal Definition:** Suffocation as a cause of death or injury within the context of criminal, accidental, or suicidal scenarios. 2. **Types of Suffocation:** - **Smothering:** Obstruction of the external airways, such as covering the mouth and

				nose. - **Choking:** Internal airway obstruction, typically by a foreign object lodged in the throat. - **Overlay:** Accidental suffocation, often seen in cases where infants are unintentionally smothered by bedding or co-sleeping parents. 3. **Medical Perspective:** - **Pathophysiology:** The physiological process by which suffocation leads to hypoxia, brain damage, and death. - **Signs and Symptoms:** Physical indicators of suffocation, including cyanosis, petechiae, and possible signs of struggle. 4. **Legal Perspective:** - **Determining Cause of Death:** Techniques used by forensic pathologists to identify suffocation as the cause of death. - **Criminal Investigation:** The role of forensic medicine in cases where suffocation may be the result of foul play, such as in homicide. - **Evidence Collection:** Collecting and interpreting evidence, such as bruising

				around the nose and mouth, fibers or materials in the airways, and witness statements. 5. **Case Studies:** Real-life examples to illustrate the medical and legal aspects of investigating suffocation, highlighting the challenges and methodologies used in such cases.
	- Hanging	**2**	**Dr.Arwa Albarhawi**	Understand hanging as a type of asphyxiation, define it, and explore its types from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Hanging:** - **Medical Definition:** Hanging occurs when a ligature is placed around the neck and tightened by the weight of the body, leading to obstruction of blood flow and/or airflow, resulting in asphyxiation. - **Legal Definition:** Hanging as a cause of death, which can be classified as suicidal, homicidal, or accidental. 2. **Types of Hanging:** - **Complete Hanging:** The entire body is suspended with no part touching the ground. - **Incomplete (Partial) Hanging:** The body is partially supported by the ground or other

				objects, with only part of the weight causing the constriction. - **Judicial Hanging:** A method of execution involving a drop to cause neck fracture and rapid death. 3. **Medical Perspective:** - **Pathophysiology:** The mechanisms of death in hanging, including compression of the airway, blood vessels, and potential neck injuries. - **Signs and Symptoms:** Indicators of hanging, such as ligature marks, petechial hemorrhages, and cervical spine injuries. - **Autopsy Findings:** Detailed examination of the neck tissues, hyoid bone, and other relevant structures to confirm hanging. 4. **Legal Perspective:** - **Determining Cause and Manner of Death:** Methods used by forensic experts to distinguish between suicidal, homicidal, and accidental hanging. - **Criminal Investigation:** Procedures for investigating hanging cases, including scene analysis, witness interviews, and examination of the ligature. - **Evidence Collection:** Gathering and analyzing evidence, such as the ligature

				material, positioning of the body, and any signs of a struggle or foul play. 4. **Case Studies:** Reviewing real-life cases to illustrate the application of medical and legal principles in hanging investigations, highlighting common challenges and forensic methodologies.
	- Drowning	**1**	**Dr.Arwa Albarhawi**	Define drowning, explore different types, including wet drowning, where water enters the lungs; dry drowning, caused by laryngospasm preventing water entry; secondary drowning, where inhaled water causes delayed respiratory issues; and near drowning, a non-fatal event with potential respiratory complications. The lecture will address the pathophysiology, signs, and forensic investigation of drowning cases.
	- Sudden Death	**2**	**Dr.Arwa Albarhawi**	Define sudden death and its significance in forensic medicine, identify its major types and common causes, explain the forensic investigation procedures including autopsy and toxicological analysis, and discuss the public health implications and preventive measures related to sudden death.
	- Deaths from Surgical Operations and General Anesthesia	**1**	**Dr.Arwa Albarhawi**	1. Define surgical and anesthesia-related deaths and understand their significance in forensic medicine. 2. Identify and describe the common causes of deaths related to surgical procedures and

				general anesthesia. 3. Explain the forensic investigation procedures used to determine the cause of death in surgical and anesthesia-related cases, including autopsy and toxicological analysis. 4. Discuss the implications of these deaths for medical practice and patient safety, and outline preventive measures that can be implemented to reduce their occurrence.
	- Pediatric Forensic Medicine	**1**	**Dr.Zainab waleed**	Cover the forensic medical issues related to children, focusing on battered child syndrome and sudden infant death syndrome (SIDS). It will provide definitions and explanations of these conditions, identify their clinical signs and symptoms, and discuss the risk factors and causes. Additionally, the lecture will explore the legal and forensic aspects, including the roles of medical examiners and the legal process involved. It will also cover the diagnostic techniques used in investigations and discuss preventive strategies and interventions to mitigate these conditions.
	- Identification	**2**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary for identifying individuals in the context of forensic medicine. It will explain the methods and techniques used in the identification process, such as fingerprint analysis, dental examination, and DNA analysis, as well as other methods like photographic analysis and recognizing distinctive physical features. The lecture will

				also emphasize the importance of identification in forensic investigations, its role in solving criminal cases, and its significance in identifying missing persons or unknown deceased individuals.
	- Identification of Thread Marks	**1**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary to analyze and interpret trace evidence collected from crime scenes. It will cover the different types of trace evidence, such as fibers, hair, and microscopic tissues, and explain how to collect, preserve, and analyze these materials using modern scientific techniques. The lecture will also highlight the importance of trace evidence in linking suspects to crime scenes or victims and its role in enhancing criminal investigations and achieving justice.
	- Age Estimation	**1**	**Dr.Zainab waleed**	Provide students with the knowledge and skills needed to accurately estimate the ages of individuals. It will explain various scientific methods used in age estimation, such as dental analysis, bone growth examination, and the evaluation of biological changes associated with aging. The lecture will also highlight the importance of age estimation in identifying individuals, understanding the circumstances of death, and its application in criminal investigations and legal cases that require precise age determination.
	- Paternity Tests and DNA Fingerprinting	**1**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary to use genetic techniques for determining familial relationships and solving forensic cases. It will explain the scientific

				principles behind paternity tests and DNA fingerprinting, including how to collect samples, analyze them, and interpret the results. The lecture will also highlight the significance of these tests in criminal investigations, identification processes, and legal cases requiring the establishment of familial relationships. Practical examples will be provided to demonstrate how these tests are applied in different forensic contexts.
	- Sexual Assaults	**3**	**Dr.Radhwan Aljamas**	Aims to equip students with the knowledge and skills necessary to understand and evaluate sexual assault cases in the context of forensic medicine. It will cover the medical and forensic methods used to diagnose and document sexual assaults, including the collection and accurate analysis of biological and physical evidence from victims. The lecture will also highlight the psychological and social aspects of sexual assaults, emphasizing the importance of treating victims with sensitivity and respect and providing necessary support. Additionally, it will clarify the role of forensic medicine in collaborating with legal authorities to ensure justice for victims and accountability for perpetrators.
	- Bloodstains	**3**	**Dr.Radhwan Aljamas**	Provide students with the knowledge and skills needed to analyze and interpret bloodstain patterns in forensic medicine. It will explain the different types of bloodstains, how they form, their spread patterns, and the methods for collecting and analyzing them using modern scientific techniques. The

				lecture will also highlight the importance of bloodstain pattern analysis in reconstructing crime scenes, determining the movements of perpetrators and victims, and providing strong evidence to support criminal investigations. Additionally, practical examples and case studies will be included to demonstrate the application of this knowledge in real-life scenarios.
	- Forensic Medical Reports	**2**	**Dr.Radhwan Aljamas**	ims to equip students with the knowledge and skills necessary to prepare and write accurate and comprehensive forensic medical reports. It will emphasize the importance of these reports in documenting medical information related to injuries or deaths within a legal framework and how to write them clearly and objectively to support criminal investigations and legal cases. The lecture will also highlight the role of forensic medical reports in providing scientific evidence for court use, supporting or refuting witness testimonies, and clarifying the circumstances surrounding incidents or crimes. Practical guidelines and real-life examples will be provided to illustrate how to independently and objectively prepare these reports to ensure justice.
	-Introduction To Toxicology	**1**	**Dr. Labeeb**	-Understand the fundamental principles and concepts of toxicology, including its history and development. - Apply knowledge to comprehend the significance of toxicology in medical and forensic contexts.

				- Maintain a critical and ethical approach to the study and application of toxicology.
	-Divisions of toxicology	**1**	**Dr. Labeeb**	- Learn the different divisions of toxicology and their specific roles. - Apply this knowledge to differentiate between various types of toxins and their effects. - Appreciate the importance of each division in the comprehensive understanding of toxicology.
	-Toxicokinetic	**1**	**Dr. Labeeb**	- Understand the principles of toxicokinetics and how toxins move within the body. - Apply knowledge to analyze the absorption, distribution, metabolism, and excretion of toxins. - Maintain accuracy and objectivity when interpreting toxicokinetic data.
	-How Does Toxicity Develop, How Does The Poisoned Patient Die	**1**	**Dr. Labeeb**	- Comprehend the mechanisms through which toxicity develops and leads to fatal outcomes. - Apply knowledge to identify the progression of toxic effects in poisoned patients. - Show empathy and respect for the patients while conducting toxicological assessments.
	-Management of the Poisoned	**2**	**Dr. Labeeb**	- Understand the procedures and best

	Patient			practices for managing poisoned patients. - Apply knowledge to effectively treat and support patients suffering from poisoning. - Maintain a high standard of care and professionalism in patient management.
	-Toxic Potential of Over-the-Counter Agents	**1**	**Dr. Labeeb**	- Identify the toxic potential of common over-the-counter medications. - Apply knowledge to assess and mitigate the risks associated with these agents. - Promote safe usage and educate patients about the potential dangers of over-the-counter drugs.
	-Drug Toxicity In Pregnancy	**1**	**Dr. Labeeb**	- Understand the impact of drug toxicity during pregnancy and its effects on the fetus. - Apply knowledge to manage and prevent drug-related complications in pregnant patients. - Show sensitivity and care when dealing with pregnant patients and potential toxic exposures.
	-Acetaminophen (Paracetamol) toxicity	**2**	**Dr. Labeeb**	- Learn the causes, symptoms, and treatment of acetaminophen toxicity. - Apply knowledge to diagnose and manage cases of acetaminophen overdose. - Ensure ethical and accurate reporting and treatment of toxicity cases.
	-Salicylate Toxicity	**1**	**Dr. Labeeb**	- Understand the symptoms and effects of salicylate toxicity.

				- Apply knowledge to effectively treat and manage salicylate poisoning. - Maintain a comprehensive approach to patient care in toxicity cases.
	-Tricyclic Antidepressants Toxicity	**1**	**Dr. Labeeb**	- Comprehend the toxic effects and treatment of tricyclic antidepressant overdose. - Apply knowledge to identify and manage cases of tricyclic antidepressant toxicity. - Ensure thorough and accurate treatment protocols for affected patients
	-Benzodiazepine Toxicity	**1**	**Dr. Labeeb**	- Understand the signs, symptoms, and management of benzodiazepine toxicity. - Apply knowledge to diagnose and treat benzodiazepine overdose. - Maintain a professional and ethical approach in the management of these cases.
	-Alcohol Intoxication	**2**	**Dr. Labeeb**	- Learn about the effects and treatment of alcohol intoxication. - Apply knowledge to manage and support patients with alcohol poisoning. - Promote awareness and education on the risks of excessive alcohol consumption

7.Instructional objectives of the practical sessions:

	Lab title	No. Of Labs	Faculty member	Instructional objective
	Introduction with a Historical Overview of Forensic Medicine	1	**Dr. Sura Obey**	Provide students with a comprehensive understanding of the concept of forensic medicine and its historical development, the lecture aims to clarify the basics and key concepts of forensic medicine. It will highlight the most significant historical milestones that have influenced its evolution and review the role of forensic medicine in the legal and judicial system throughout the ages.
	- Forensic Medical Systems	**1**	**Dr. Sura Obey**	introduce students to the systems and procedures adopted in forensic medicine, the lecture aims to explain how forensic medicine is organized and applied within different legal systems. clarify the legal and regulatory frameworks governing the practice of forensic medicine. The lecture will also highlight the role of forensic medicine in criminal investigations and judicial procedures, as well as review how forensic evidence and medical reports are handled in a legal context.
	- Death and its Signs	**2**	**Dr. Sura Obey**	Introduce students to the fundamental concepts related to death and the associated medical signs, the lecture aims to teach how to determine the time and causes of death by examining various physical and chemical indicators. It will review postmortem changes

				such as rigor mortis, livor mortis, and the decrease in body temperature. The lecture will also highlight the importance of these signs in forensic investigations and their role in determining the circumstances surrounding death.
	- Confirmatory Signs of Death	**3**	**Dr. Sura Obey**	Highlight the signs that appear after death and assist in its diagnosis, the lecture will cover postmortem changes such as livor mortis, which manifests as discoloration in the lower, dependent parts of the body after death. This information helps confirm the occurrence of death and guides forensic medical investigations.
	- Biochemical Changes in Blood and Other Fluids	**2**	**Dr. Sura Obey**	Highlight the chemical reactions that occur in the human body after death, the lecture will cover changes in the concentrations of biochemical substances such as glucose, urea, enzymes, and proteins. This knowledge is crucial for a better understanding of biological processes and forensic medical analysis.
	- Wounds and Their Types	**4**	**Dr. Hadeel Tahseen**	highlight the different types of wounds and how to manage them, the lecture will cover various wound classifications, including incised, lacerated, puncture, and abrasion wounds. It will also address the appropriate medical and forensic approaches for treating and documenting these injuries.
	- Consequences of Wounds	**1**	**Dr. Hadeel Tahseen**	Highlight the physical changes that occur in the body after an injury, the lecture will discuss the physiological and pathological responses, such as inflammation, swelling,

				bruising, and tissue damage. It will also cover the healing process and the factors that can influence the severity and recovery of injuries.
	- Causes of Death in Wounds	**1**	**Dr. Hadeel Tahseen**	Understand the factors that can lead to a person's death after sustaining injuries, the lecture will examine various critical aspects such as the severity and location of the wounds, blood loss, infection, and the body's physiological response to trauma. It will also cover how pre-existing medical conditions and the timely and adequacy of medical intervention can influence the outcome.
	- Road Accidents	**1**	**Dr.Shatha Thanon**	To understand the causes and challenges related to traffic accidents, the lecture will analyze injuries and determine the causes of death associated with road accidents. It will cover the mechanics of injuries, the impact of speed and safety measures, and the role of alcohol and drugs. The lecture will also address the challenges in investigating and reconstructing traffic accidents for forensic purposes.
	- Train Accidents	**1**	**Dr.Shatha Thanon**	Understand the causes and challenges related to railway accidents, the lecture will analyze injuries and determine the causes of death associated with train accidents. It will cover the mechanics of injuries, the impact of speed and collision, and the role of human error and mechanical failure. The lecture will also address the challenges in investigating and reconstructing train accidents for forensic purposes.

	- Distinctive Features of Injuries in Different Body Areas	**1**	**Dr.Shatha Thanon**	Highlight the unique characteristics of injuries in different parts of the human body, this lecture will help recent graduates in identifying the cause of injuries and provide the necessary guidance for treatment and medical reporting. It will cover the specific anatomical and physiological aspects of various body regions, the typical injury patterns associated with each area, and the implications for diagnosis and forensic analysis.
	- Head Injuries	**1**	**Dr.Shatha Thanon**	Understand the forensic medical aspects related to injuries in the head and its appendages, the lecture will cover the anatomy and physiology of the head, common types of head injuries such as concussions, skull fractures, and brain injuries, and the mechanisms of these injuries. It will also address the forensic implications, including the assessment of injury severity, determination of cause, and the role of head injuries in legal and criminal investigations.
	- Injuries to Head Appendages	**1**	**Dr.Shatha Thanon**	Understand the forensic medical aspects related to injuries in the head and its appendages, the lecture will cover the anatomy and physiology of the head, common types of head injuries such as concussions, skull fractures, and brain injuries, and the mechanisms of these injuries. It will also address the forensic implications, including the assessment of injury severity, determination of cause, and the role of head injuries in legal and criminal

				investigations.
	- Heat Injuries and Burns	**2**	**Dr.Shatha Thanon**	Explore the specific effects of heat-related injuries and burns on the human body from a forensic perspective, the lecture will examine the various degrees and types of burns, the physiological and pathological responses to thermal injuries, and the mechanisms of heat damage. It will also discuss the forensic investigation of burn injuries, including determining the cause and origin of burns, differentiating between accidental and intentional burns, and the role of heat-related injuries in legal and criminal contexts.
	- Electrical Injuries	**1**	**Dr.Arwa Albarhawi**	Understand the specific effects of heat-related injuries and burns on the human body from a forensic perspective, the lecture will cover the different degrees and types of burns, the physiological and pathological responses to thermal injuries, and the mechanisms of heat damage. It will also address the forensic investigation of burn injuries, including determining the cause and origin of burns, distinguishing between accidental and intentional burns, and the implications of heat-related injuries in legal and criminal contexts.
	- Asphyxiation	**1**	**Dr.Arwa Albarhawi**	Highlight asphyxiation, its definition, and types from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Asphyxiation:** An overview of what constitutes asphyxiation and its basic

				mechanisms. 2. **Types of Asphyxiation:** - **Mechanical Asphyxiation:** Including strangulation, suffocation, and compression of the chest. - **Chemical Asphyxiation:** Caused by inhalation of toxic substances like carbon monoxide or cyanide. - **Environmental Asphyxiation:** Resulting from lack of oxygen in the environment, such as in confined spaces. 3. **Medical Perspective:** - **Pathophysiology:** How asphyxiation affects the body, including hypoxia and organ damage. - **Signs and Symptoms:** Physical indicators that suggest asphyxiation, such as petechial hemorrhages, cyanosis, and congestion. 4. **Legal Perspective:** - **Determining Cause of Death:** How forensic experts determine asphyxiation as the cause of death. - **Criminal Investigation:** The role of forensic medicine in investigating potential homicide, suicide, or accidental deaths involving asphyxiation. - **Evidence Collection:** Gathering and analyzing evidence, such as marks on the body, toxicological tests, and environmental

				factors. 5. **Case Studies:** Reviewing real-life cases to illustrate the application of medical and legal principles in asphyxiation-related investigations.
	- Suffocation and Strangulation	**1**	**Dr.Arwa Albarhawi**	Understand suffocation as a type of asphyxiation and define it from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Suffocation:** - **Medical Definition:** Suffocation occurs when airflow to the lungs is obstructed, leading to oxygen deprivation and potentially death. - **Legal Definition:** Suffocation as a cause of death or injury within the context of criminal, accidental, or suicidal scenarios. 2. **Types of Suffocation:** - **Smothering:** Obstruction of the external airways, such as covering the mouth and nose. - **Choking:** Internal airway obstruction, typically by a foreign object lodged in the throat. - **Overlay:** Accidental suffocation, often seen in cases where infants are unintentionally smothered by bedding or co-sleeping parents.

				3. **Medical Perspective:** - **Pathophysiology:** The physiological process by which suffocation leads to hypoxia, brain damage, and death. - **Signs and Symptoms:** Physical indicators of suffocation, including cyanosis, petechiae, and possible signs of struggle. 4. **Legal Perspective:** - **Determining Cause of Death:** Techniques used by forensic pathologists to identify suffocation as the cause of death. - **Criminal Investigation:** The role of forensic medicine in cases where suffocation may be the result of foul play, such as in homicide. - **Evidence Collection:** Collecting and interpreting evidence, such as bruising around the nose and mouth, fibers or materials in the airways, and witness statements. 5. **Case Studies:** Real-life examples to illustrate the medical and legal aspects of investigating suffocation, highlighting the challenges and methodologies used in such cases.
	- Hanging	**2**	**Dr.Arwa Albarhawi**	Understand hanging as a type of asphyxiation, define it, and explore its types from a legal and medical perspective, the lecture will cover the following: 1. **Definition of Hanging:**

				- **Medical Definition:** Hanging occurs when a ligature is placed around the neck and tightened by the weight of the body, leading to obstruction of blood flow and/or airflow, resulting in asphyxiation. - **Legal Definition:** Hanging as a cause of death, which can be classified as suicidal, homicidal, or accidental. 2. **Types of Hanging:** - **Complete Hanging:** The entire body is suspended with no part touching the ground. - **Incomplete (Partial) Hanging:** The body is partially supported by the ground or other objects, with only part of the weight causing the constriction. - **Judicial Hanging:** A method of execution involving a drop to cause neck fracture and rapid death. 3. **Medical Perspective:** - **Pathophysiology:** The mechanisms of death in hanging, including compression of the airway, blood vessels, and potential neck injuries. - **Signs and Symptoms:** Indicators of hanging, such as ligature marks, petechial hemorrhages, and cervical spine injuries. - **Autopsy Findings:** Detailed examination of

				the neck tissues, hyoid bone, and other relevant structures to confirm hanging. 4. **Legal Perspective:** - **Determining Cause and Manner of Death:** Methods used by forensic experts to distinguish between suicidal, homicidal, and accidental hanging. - **Criminal Investigation:** Procedures for investigating hanging cases, including scene analysis, witness interviews, and examination of the ligature. - **Evidence Collection:** Gathering and analyzing evidence, such as the ligature material, positioning of the body, and any signs of a struggle or foul play. 5. **Case Studies:** Reviewing real-life cases to illustrate the application of medical and legal principles in hanging investigations, highlighting common challenges and forensic methodologies.
	- Drowning	**1**	**Dr.Arwa Albarhawi**	Define drowning, explore different types, including wet drowning, where water enters the lungs; dry drowning, caused by laryngospasm preventing water entry; secondary drowning, where inhaled water causes delayed respiratory issues; and near drowning, a non-fatal event with potential respiratory complications. The lecture will address the pathophysiology, signs, and forensic investigation of drowning cases.
	- Sudden Death	**2**	**Dr.Arwa**	Define sudden death and its significance in

			Albarhawi	forensic medicine, identify its major types and common causes, explain the forensic investigation procedures including autopsy and toxicological analysis, and discuss the public health implications and preventive measures related to sudden death.
	- Deaths from Surgical Operations and General Anesthesia	**1**	**Dr.Arwa Albarhawi**	1. Define surgical and anesthesia-related deaths and understand their significance in forensic medicine. 2. Identify and describe the common causes of deaths related to surgical procedures and general anesthesia. 3. Explain the forensic investigation procedures used to determine the cause of death in surgical and anesthesia-related cases, including autopsy and toxicological analysis. 4. Discuss the implications of these deaths for medical practice and patient safety, and outline preventive measures that can be implemented to reduce their occurrence.
	- Pediatric Forensic Medicine	**1**	**Dr.Zainab waleed**	Cover the forensic medical issues related to children, focusing on battered child syndrome and sudden infant death syndrome (SIDS). It will provide definitions and explanations of these conditions, identify their clinical signs and symptoms, and discuss the risk factors and causes. Additionally, the lecture will explore the legal and forensic aspects, including the roles of medical examiners and the legal process involved. It will also cover the diagnostic techniques used in

				investigations and discuss preventive strategies and interventions to mitigate these conditions.
	- Identification	**2**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary for identifying individuals in the context of forensic medicine. It will explain the methods and techniques used in the identification process, such as fingerprint analysis, dental examination, and DNA analysis, as well as other methods like photographic analysis and recognizing distinctive physical features. The lecture will also emphasize the importance of identification in forensic investigations, its role in solving criminal cases, and its significance in identifying missing persons or unknown deceased individuals.
	- Identification of Thread Marks	**1**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary to analyze and interpret trace evidence collected from crime scenes. It will cover the different types of trace evidence, such as fibers, hair, and microscopic tissues, and explain how to collect, preserve, and analyze these materials using modern scientific techniques. The lecture will also highlight the importance of trace evidence in linking suspects to crime scenes or victims and its role in enhancing criminal investigations and achieving justice.
	- Age Estimation	**1**	**Dr.Zainab waleed**	Provide students with the knowledge and skills needed to accurately estimate the ages of individuals. It will explain various scientific methods used in age estimation, such as

				dental analysis, bone growth examination, and the evaluation of biological changes associated with aging. The lecture will also highlight the importance of age estimation in identifying individuals, understanding the circumstances of death, and its application in criminal investigations and legal cases that require precise age determination.
	- Paternity Tests and DNA Fingerprinting	**1**	**Dr.Zainab waleed**	Equip students with the knowledge and skills necessary to use genetic techniques for determining familial relationships and solving forensic cases. It will explain the scientific principles behind paternity tests and DNA fingerprinting, including how to collect samples, analyze them, and interpret the results. The lecture will also highlight the significance of these tests in criminal investigations, identification processes, and legal cases requiring the establishment of familial relationships. Practical examples will be provided to demonstrate how these tests are applied in different forensic contexts.
	- Sexual Assaults	**3**	**Dr.Radhwan Aljamas**	Aims to equip students with the knowledge and skills necessary to understand and evaluate sexual assault cases in the context of forensic medicine. It will cover the medical and forensic methods used to diagnose and document sexual assaults, including the collection and accurate analysis of biological and physical evidence from victims. The lecture will also highlight the psychological and social aspects of sexual assaults, emphasizing the importance of treating victims with sensitivity and respect and

				providing necessary support. Additionally, it will clarify the role of forensic medicine in collaborating with legal authorities to ensure justice for victims and accountability for perpetrators.
	- Bloodstains	**3**	**Dr.Radhwan Aljamas**	Provide students with the knowledge and skills needed to analyze and interpret bloodstain patterns in forensic medicine. It will explain the different types of bloodstains, how they form, their spread patterns, and the methods for collecting and analyzing them using modern scientific techniques. The lecture will also highlight the importance of bloodstain pattern analysis in reconstructing crime scenes, determining the movements of perpetrators and victims, and providing strong evidence to support criminal investigations. Additionally, practical examples and case studies will be included to demonstrate the application of this knowledge in real-life scenarios.
	- Forensic Medical Reports	**2**	**Dr.Radhwan Aljamas**	ims to equip students with the knowledge and skills necessary to prepare and write accurate and comprehensive forensic medical reports. It will emphasize the importance of these reports in documenting medical information related to injuries or deaths within a legal framework and how to write them clearly and objectively to support criminal investigations and legal cases. The lecture will also highlight the role of forensic medical reports in providing scientific evidence for court use, supporting or refuting witness testimonies, and clarifying the

				circumstances surrounding incidents or crimes. Practical guidelines and real-life examples will be provided to illustrate how to independently and objectively prepare these reports to ensure justice.
	-Introduction To Toxicology	**1**	**Dr. Labeeb**	-Understand the fundamental principles and concepts of toxicology, including its history and development. - Apply knowledge to comprehend the significance of toxicology in medical and forensic contexts. - Maintain a critical and ethical approach to the study and application of toxicology.
	-Divisions of toxicology	**1**	**Dr. Labeeb**	- Learn the different divisions of toxicology and their specific roles. - Apply this knowledge to differentiate between various types of toxins and their effects. - Appreciate the importance of each division in the comprehensive understanding of toxicology.
	-Toxicokinetic	**1**	**Dr. Labeeb**	- Understand the principles of toxicokinetics and how toxins move within the body. - Apply knowledge to analyze the absorption, distribution, metabolism, and excretion of toxins. - Maintain accuracy and objectivity when interpreting toxicokinetic data.
	-How Does Toxicity Develop,	**1**	**Dr. Labeeb**	- Comprehend the mechanisms through

	How Does The Poisoned Patient Die			which toxicity develops and leads to fatal outcomes. - Apply knowledge to identify the progression of toxic effects in poisoned patients. - Show empathy and respect for the patients while conducting toxicological assessments.
	-Management of the Poisoned Patient	**2**	**Dr. Labeeb**	- Understand the procedures and best practices for managing poisoned patients. - Apply knowledge to effectively treat and support patients suffering from poisoning. - Maintain a high standard of care and professionalism in patient management.
	-Toxic Potential of Over-the-Counter Agents	**1**	**Dr. Labeeb**	- Identify the toxic potential of common over-the-counter medications. - Apply knowledge to assess and mitigate the risks associated with these agents. - Promote safe usage and educate patients about the potential dangers of over-the-counter drugs.
	-Drug Toxicity In Pregnancy	**1**	**Dr. Labeeb**	- Understand the impact of drug toxicity during pregnancy and its effects on the fetus. - Apply knowledge to manage and prevent drug-related complications in pregnant patients. - Show sensitivity and care when dealing with pregnant patients and potential toxic

				exposures.
	-Acetaminophen (Paracetamol) toxicity	**2**	**Dr. Labeeb**	- Learn the causes, symptoms, and treatment of acetaminophen toxicity. - Apply knowledge to diagnose and manage cases of acetaminophen overdose. - Ensure ethical and accurate reporting and treatment of toxicity cases.
	-Salicylate Toxicity	**1**	**Dr. Labeeb**	- Understand the symptoms and effects of salicylate toxicity. - Apply knowledge to effectively treat and manage salicylate poisoning. - Maintain a comprehensive approach to patient care in toxicity cases.
	-Tricyclic Antidepressants Toxicity	**1**	**Dr. Labeeb**	- Comprehend the toxic effects and treatment of tricyclic antidepressant overdose. - Apply knowledge to identify and manage cases of tricyclic antidepressant toxicity. - Ensure thorough and accurate treatment protocols for affected patients
	-Benzodiazepine Toxicity	**1**	**Dr. Labeeb**	- Understand the signs, symptoms, and management of benzodiazepine toxicity. - Apply knowledge to diagnose and treat benzodiazepine overdose. - Maintain a professional and ethical approach in the management of these cases.
	-Alcohol	**2**	**Dr. Labeeb**	- Learn about the effects and treatment of

	Intoxication			alcohol intoxication. - Apply knowledge to manage and support patients with alcohol poisoning. - Promote awareness and education on the risks of excessive alcohol consumption

8.Tables of the Course

Day	**12.30-2.30**
Saturday	
Sunday	
Monday	
Tuesday	
Wednesday	Theory lecture
Thursday	Practical labs

9.Learning Resources

١- الكتب المقررة المطلوبة	Essential books: الكتاب النهجي للطب العدلي والسموم لجامعة الدول العربية, الطب الشرعي اطلس الطب العدلي للدكتور عبد الوهاب الجلبي
الكتب و المجلات و التقارير	The American Journal of Forensic Medicine and Pathology. Forensic science international. Journal of medical ethics. Egyptian journal of forensic sciences.
المراجع الالكترونية	١- كتاب الاخلاقيات الطبية . صادر عن منظمة الأطباء العالمية ومتوفرة شبكيا ٢- الموقع العالمي : عالم الطب الشرعي

10.Additional Information

Contact: Arwa.khalil@uoninevah.edu.iq

Location: Pathology department1.Appendix

Internal medicine for the fourth year

1.General Information:

- **Subject**: internal medicine
- **Code** 424
- **Credit hours**: 12 units(theoretical 132 hours , practical 80 hours)
- **Course Language**: English.

2.Syllabus:

- Ischemic heart disease
- Cardiac arrhythmia
- Heart failure/ acute pulmonary oedema
- Hypertension
- Rheumatic valve/Valve heart disease
- Pulmonary embolism/DVT
- Congenital heart disease
- Upper GIT Bleeding/peptic ulcer
- Jaundice
- Gastroenteritis / GIT infection
- Approach to Ascites
- Liver cirrhosis/hepatic encephalopathy
- Diabetic Ketoacidosis
- Thyrotoxicosis/ hypothyroidism
- Dyslipidaemia
- Chronic complication of DM
- Asthma
- COPD
- ARDS/COVID19/pneumonia
- Acute kidney injury
- Chronic renal disease
- Electrolyte disturbances
- Shock management

3.Learning Objective:

Example: Learning Objectives for internal medicine Curriculum

Knowledge

- **1. Cardiovascular medicine :** Classification, etiology, clinical features, investigations, differential diagnosis, treatment and prognosis of cardiovascular disease like Ischemic heart disease ,Cardiac arrhythmia , Heart failure/ acute pulmonary oedema ,Hypertension Rheumatic valve/Valve heart disease ,pericardial disease ,peripheral arterial disease ,Pulmonary embolism/DVT ,Congenital heart disease

- **2. Gastroenterology and hepatology:** Classification, etiology, clinical features, investigations, differential diagnosis, treatment and prognosis of GIT disorders Upper GIT Bleeding/peptic ulcer , eseophageal disease, inflammatory bowel disease ,GIT malignancy Jaundice ,Gastroenteritis / GIT infection ,Approach to Ascites ,Liver cirrhosis/hepatic encephalopathy, autoimmune hepatitis drugs and liver , hepatobiliary investigation viral hepatitis , acute and chronic pancreatitis
- **3. respiratory:** Classification, etiology, clinical features, investigations, differential diagnosis, treatment and prognosis of respiratory disorders • introduction to respiratory disease ,Asthma ,COPD ,ARDS/COVID19/pneumonia,interstitial lung disease, pleural disease and effusion ,bronchiectasis, malignancy
- **4. Renal system :** Classification, etiology, clinical features, investigations, differential diagnosis, treatment and prognosis Acute kidney injury ,Chronic renal disease ,glomerular disease ,Electrolyte disturbances ,Shock management
- **5.Endocrine disorders** Classification, etiology, clinical features, investigations, differential diagnosis, treatment and prognosis of Diabetic Ketoacidosis ,Thyrotoxicosis/ hypothyroidism Dyslipidaemia ,Chronic complication of DM, Adrenal disease , pituitary disease

Skills

- **Clinical Examination**: Students will perform comprehensive internal medicine physical examinations, including general examination .precordial examination , abdominal examination , chest examination

- **Communication**: Students will demonstrate effective communication skills with patient with variable clinical profiles.

- **Procedures**: Students will competently perform basic medical procedures such as psrscentasis, venipuncture, and lumbar puncture under supervision.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with medical patients and their families.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of medical patients and their families.

4. Outcomes for Educational Program

Example:

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of medical health and disease, including preventive care, common and complex conditions, and developmental disorders.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in internal medicine care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of medical assessments and interventions, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of medical conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in internal medicine care, prioritizing the well-being and rights of children.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in internal medicine.

5.Course Overview

- **The course is composed of two parts as follow**:

1.*Theoretical Part . 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: five hours per week (first semester) 14 weeks(about 72 hours)
  - Weekly Hours: five hours per week (second semester) 12 weeks(60 hours)
  - Total: 132 hours per academic year

  For the practical part:

- Weekly 8 hours
- Total 80 hours

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: al salam teaching hospital , mosul cardiac center .

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

-For the practical part.

- Clinical Rotations
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Simulation Training
- Skills Labs
- Lectures and Seminars
- Ward Rounds
- Clinical Tutorials
- Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-*Components of Assessment:*

- Written Exams (40% of total grade)
- Objective Structured Clinical Examination (OSCE) (30% of total grade)
- Clinical Performance and Logbook (20% of total grade)
- Research Project and Presentation (10% of total grade)

-*Detailed Breakdown*

- **Written Exams (40%)**:
  - Midterm Exam: 15% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
  - End term Exam: 25% (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)
- **Objective Structured Clinical Examination (OSCE) (30%)**:
  - Stations: Typically includes 10-15 stations, each assessing different clinical skills (e.g., history taking, physical examination, communication, and procedural skills). Each station is scored out of 10 marks. Total OSCE Score: Sum of scores from all stations.
- **Clinical Performance and Logbook (20%)**:
  - Clinical Performance: 10% (Assessed by supervisors during clinical rotations based on direct observation, clinical skills, professional behavior, and participation)
  - Logbook: 10% (Students maintain a logbook documenting clinical cases, procedures performed, and reflective entries. The logbook is reviewed and scored by faculty based on completeness, accuracy, and depth of reflection)
- **Research Project and Presentation (10%)**:
  - Research Project: 7% (Assessment of the research project, including the clarity of objectives, methodology, analysis, and conclusions. Scored by faculty members based on a standardized rubric)
  - Presentation: 3% (Students present their research findings to peers and faculty. Evaluation is based on presentation skills, ability to answer questions, and quality of visual aids)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations, peer evaluations.
- **Blueprints of mid-year, final exam or any other exam if available**.

Cardiology		Percentage	No. of questions	Total questions
1	Anatomy and physiology of cardiovascular system	1%	1	25
2	Basic investigation of cardiovascular system	1%	1	
3	ECG	1%	1	
4,5,6	Atherosclerosis and coronary artery diseases	3%	3	
7-11	Cardiac arrhythmia	2%	2	
12,13	Heart failure	2%	2	
14,15	Hypertension	2%	2	
16	Myocardial diseases	1%	1	
17	Pericardial diseases	1%	1	
18	Rheumatic heart disease	1%	1	
19,20,21	Valvular heart disease	3%	3	
22	Infective endocarditis	1%	1	
23	Congenital heart disease	1%	1	

24	Peripheral artery disease and diseases of aorta	1%	1	
25	Venous thromboembolism and pulmonary HT	1%	1	
GIT		**Percentage**	**No. of questions**	**Total questions**
1,2	Investigations of gastrointestinal diseases	2%	2	24
3	The diseases of Esophagus	1%	1	
4	Acute and chronic gastritis	1%	1	
5	Tumors of the esophagus and stomach	1%	1	
6,7	Peptic ulcer disease	2%	2	
8	Malabsorption syndrome	1%	1	
9	Other diseases of the small intestine	1%	1	
10	irritable bowel syndrome	1%	1	
11,12	Inflammatory bowel disease	2%	2	
13	Tumours of the colon and rectum	1%	1	
14	Investigations of hepatobiliay disease	1%	1	
15	Acute liver disease	1%	1	
16	Jaundice	1%	1	
17,18	Chronic liver disease and portal hypertension	2%	2	
19	Upper gastrointestinal bleeding	1%	1	

20	Viral hepatitis	1%	2	
21	Non-alcoholic fatty liver disease	1%	2	
22	Autoimmune liver and biliary disease	1%	2	
23	Inherited liver diseases	1%	1	
24	Diseases of the pancreas	1%	2	
Respiratory		**Percentage**	**No. of questions**	**Total questions**
1	Investigations of respiratory diseases	1%	1	22
2,3	Asthma	2%	2	
4,5	COPD	2%	2	
6	Bronchiectasis and cystic fibrosis	1%	1	
7,8	Community acquired pneumonia	2%	2	
9	Hospital-acquired pneumonia and lung abscess	1%	1	
10,11	Tuberculosis	2%	2	
12,13	Lung cancer	2%	2	
14,15	diseases of pleura (pleural effusion, pneumothorax, empyema)	2%	2	
16,17	Interstitial lung disease (IPF and sarcoidosis)	2%	2	
18,19	Respiratory failure and ARDS	2%	2	
20	obstructive sleep apnea (OSA)	1%	1	
21,22	COVID-19 disease	2%	2	

Endocrinology /DM		Percentage	No. of questions	Total questions
1-5	Pituitary gland disorders (5 lectures):	5%	5	16
6-8	Thyroid gland disorders	2%	2	
9-10	Adrenal gland disorders	2%	2	
11	Pheochromocytoma	1%	1	
12	Congenital Adrenal Hyperplasia	1%	1	
13	parathyroid glands diseases	1%	1	
14-18	DM	14-18	4	
Nephrology		**Percentage**	**No. of questions**	**Total questions**
1	Investigations of renal disease	1%	1	13
2,3	Acute kidney injury	2%	2	
4,5	Chronic kidney disease	2%	2	
6	Renal replacement therapy	1%	1	
7-9	Glomerulonephritis	2%	2	
10	Renal vascular disease	1%	1	
11	Interstitial nephritis	1%	1	
12	Renal cystic disease	1%	1	
13	Infection of the kidneys and urinary tract	1%	1	
total summation		100%	100	100

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Anatomy and physiology of cardiovascular system	2 lect	Dr. Ahmed Moayad Husain	• Memorizing the clinical anatomy and physiology of cardiovascular system as an introduction to the pathophysiology of cardiovascular diseases
	Basic investigation of cardiovascular system	2 lect	Dr. Ahmed Moayad Husain	• Identify the most used investigation and its indications. • Recognize the advantage of each investigation
	ECG	2 lect	Dr. Ahmed Moayad Husain	•To learn how to interpret ECG and identify ECG changes in common diseases (this is newly added lecture as requested by students)
	atherosclerosis and coronary artery diseases	2 lect	Dr. Ahmed Moayad Husain	•To identify pathophysiology and Impact of Atherosclerosis •Identify clinical classification of coronary artery diseases •Learn the most used investigations and treatment options

	Cardiac arrhythmia	4 lect	Dr. Ahmed Moayad Husain	•To identify pathophysiology and Impact of arrhythmias •Identify clinical presentation, investigation and treatment modalities
	Heart failure	2 lect	Dr. Faris Mahmood Lolan	•To know the types of heart failure •To memories the pathophysiology of heart failure, Clinical presentation of heart failure •Outline the management of acute heart failure •Outline the management of decompensated failures
	Hypertension	2lect	Dr. Faris Mahmood Lolan	•Definition of hypertension • To know the risk for essential hypertension •Types of hypertension •Causes of 2nd hypertension •Management strategy of new patient
	Myocardial diseases	2 lect	Dr. Faris Mahmood Lolan	• To differentiate the types of

				cardiomyopathy • Identify Complicating of dilated cardiomyopathy • Recognize Types of cardiomyopathy • Define myocarditis
	Pericardial diseases	2 lect	Dr. Faris Mahmood Lolan	• Identify Causes of pericarditis • Clinical feature of pericarditis • Investigation needed in pericardial dis • Define pericardial tamponade
	Rheumatic heart disease	1 lect	Dr. Ahmed Mohammed Saeed	• To define rheumatic fever • To understand pathology and prevention od RF • To identify clinical presentation and diagnostic criteria • To discuss treatment and preventive measures
	Valvular heart disease	4 lect	Dr. Ahmed Mohammed Saeed	• To understand pathophysiology of VHD • To discuss clinical features and identify

				diagnostic investigations • To discuss outlines of treatment options
	Infective endocarditis	2 lect	Dr. Ahmed Mohammed Saeed	• To discuss definition and risk factors of SBE • To know clinical criteria and diagnostic tools • To know treatment approach and preventive measures
	Adult Congenital heart disease	2lect	Dr. Ahmed Mohammed Saeed	• To identify pathophysiology and clinical presentation • To recognize diagnostic and management options
	Peripheral artery disease and diseases of aorta	1 lect	Dr. Ahmed Mohammed Saeed	• To know prevalence and risk factors of PAD • To know clinical presentation and complications • To understand diagnostic and management options
	Venous thromboembolism and pulmonary HT	2 lect	Dr. Faris Mahmood Lolan	• To know definition, classification and clinical presentation • To know main

				investigations and diagnostic approach • To discuss treatment lines and preventive measures

7.Instructional objectives of the clinical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	Investigations of gastrointestinal diseases	1	Dr. Ahmed Moayad Husain	Outline of main investigation in GIT Indication of each diagnostic tools To understand the basic principles of invasive tools
	esophagus the of Diseases	2	Dr. Ahmed Moayad Husain	Explain main esophageal pathology To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Acute and chronic gastritis	2	Dr. Ahmed Moayad Husain	Explain main esophageal pathology To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Tumours of the oesophagus and	2	Dr. Ahmed Moayad	To know pathophysiology of each disease

	stomach		Husain	To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Peptic ulcer disease	2	Dr. Ahmed Moayad Husain	To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Malabsorption syndrome	3	Dr. Ahmed Moayad Husain	To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Other diseases of the small in intestine	2	Dr. Ahmed Moayad Husain	Discuss some rare disorders Outlines diagnostic and main treatment lines
	irritable bowel syndrome	1	Dr. Ahmed Moayad	To know pathophysiology of each disease

			Husain	To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Inflammatory bowel disease	3	Dr. Faris Mahmood Lolan	To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Tumors of the colon and rectum	2	Dr. Faris Mahmood Lolan	To know pathophysiology of each disease To identify risk factors To know clinical manifestation To discuss main diagnostic tests Outlines management plans To know complications of disease and surveillance
	Investigations of hepatobiliay disease	1	Dr. Faris Mahmood Lolan	To know what investigations are required to make a diagnosis in patients presenting with hepatobilary diseases To be able to interpret liver function test to differentiate obstructive and non-obstructive diseases. To understand the basic principles of imaging of

				the liver including the chest X-ray, CT scan, CTPA, VQ scan, etc.
	Acute liver disease	4	Dr. Ahmed Mohammed Saeed	List common causes of acute liver failure conditions seen with it. To know common clinical symptom To know physical signs Overview the method of diagnosis and describe the major treatment options.
	Jaundice	2	Dr. Ahmed Mohammed Saeed	Define jaundice Define types of jaundice Methods of differentiations Outline the clinical sign How to manage the patient
	Chronic liver disease and portal hypertension	3	Dr. Ahmed Mohammed Saeed	Define chronic liver failure List Causes of chronic liver failure Discuss Pathophysiology chronic liver failure List complications of chronic liver failure Identify causes of portal hypertension Explain pathophysiology of portal hypertension Complicating of portal hypertension Emergency management portal hypertension
	upper gastrointestinal bleeding	2	Dr. Ahmed Mohammed Saeed	What are causes of upper gastrointestinal bleeding Types of upper gastrointestinal bleeding Cardinal manifestation of upper gastrointestinal

				bleeding Circulatoy support of patient with upper gastrointestinal bleeding
	Viral hepatitis	3	Dr. Ahmed Mohammed Saeed	Types of viral hepatitis Clinical presentation Mode of transmission Methods of protection How to mange
	Non-alcoholic fatty liver disease	2	Dr. Ahmed Mohammed Saeed	Definition of Non-alcoholic fatty liver disease Types of Non-alcoholic fatty liver disease Investigation of patient with Non-alcoholic fatty liver disease Outline the mangment of Non-alcoholic fatty liver disease
	Autoimmune liver and biliary disease	3	Dr. Ahmed Mohammed Saeed	Recognize the abnormalities in hereditary clinical features & complications, diagnostic methods & treatment Identify how to manage patient
	Inherited liver diseases	2	Dr. Ahmed Mohammed Saeed	Recognize Types of Inherited liver diseases List named of Inherited liver diseases Discuss Pathophysiology of Wilson disease Review mangment of Wilson disease Define alpha one antitrypsin defciency Explain management lines

	Diseases of the pancreas	2	Dr. Ahmed Mohammed Saeed	Definition of acute pancreatitis To know common clinical symptom acute pancreatic To know physical signs acute pancreatitis Overview the method of diagnosis and describe the major treatment options.
	Investigations of respiratory diseases	2	Dr. Alaa Mohammed Ali	To know what investigations are required to make a diagnosis in patients presenting with respiratory symptoms and signs. To be able to interpret pulmonary function test to differentiate obstructive and restrictive lung diseases. To understand the basic principles of imaging of the lung, including the chest X-ray, CT scan, CTPA, VQ scan, etc.
	Bronchial asthma	3	Dr. Alaa Mohammed Ali	To know the definition of asthma. To understand risk factors and triggers of asthma. To know the pathophysiology of asthma. To know how to diagnose asthma. To understand the management of chronic asthma. To understand the management of acute asthmatic attack.
	Chronic obstructive pulmonary disease 1(COPD)	2	Dr. Alaa Mohammed Ali	Introduction and definition of COPD. Discuss the incidence and prevalence. Review the pathophysiology. Discuss the diagnosis and management of COPD. Discuss the prevention and treatment of COPD

				exacerbation
	Bronchiectasis and cystic fibrosis	2	Dr. Alaa Mohammed Ali	To Define bronchiectasis and to identify common risk factors and causes of bronchiectasis. Discuss major clinical features and management. Identify the key difference regarding cystic fibrosis as a cause of bronchiectasis
	Community acquired pneumonia (CAP)	2	Dr. Alaa Mohammed Ali	Discuss the definition and pathophysiology of CAP. Recognize the clinical presentations associated with CAP. Discuss the diagnosis and management of CAP. Identify common microbial etiological agents causing CAP and discuss their laboratory work
	Tuberculosis (TB)	2	Dr. Alaa Mohammed Ali	Overview the epidemiology, transmission and pathogenesis of tuberculosis. Discuss the clinical presentation and testing for TB infection and disease. Discuss the management and complications of TB infection
	Lung cancer	2	Dr. Alaa Mohammed Ali	Describe the risk factors for lung cancer. Describe the classification of lung cancer types and the cellular features of common lung cancer types. Discuss the clinical presentations of lung cancer types
	diseases of pleura (pleural effusion, pneumothorax, empyema)	2	Dr. Alaa Mohammed Ali	Explain the signs and symptoms of pleural effusion. Describe the diagnostic investigations for pleural

				effusion. Summarize the management of pleural effusion. To define and classify pneumothorax. Describe the clinical features of pneumothorax. Overview the emergency treatment and definite treatment of pneumothorax. To define and identify the causes of empyema. Explain the diagnosis and method of treatment.
	Interstitial lung disease (IPF and sarcoidosis) ILD	2	Dr. Alaa Mohammed Ali	review the spectrum of ILD. Identify clues on clinical presentations to diagnose ILD. Review common radiographic findings in ILD. List and describe some common types of ILD
	Respiratory failure and ARDS	1	Dr. Alaa Mohammed Ali	To define and discuss the types of respiratory failure. Discuss diagnosis, management and complications of respiratory failure. Review the causes and discuss the pathophysiology of ARDS. Discuss and diagnostic criteria and evidence-based management of ARDS.
	Obstructive sleep apnea OSA	1	Dr. Alaa Mohammed Ali	List the symptoms and associated comorbid conditions seen with OSA. Overview the method of diagnosis and describe the major treatment options.
	COVID-19 disease	2	Dr. Alaa	Overview the clinical features of COVID-19.

			Mohammed Ali	Discuss the management according to the level of severity. Discuss the prevention and Vaccinations in COVID-19 disease
	Thyroid disease	4	Dr. Nabil Najeeb	Introduction: To state the physiology of thyroid gland function, TSH, T4 and T. To mention the effects of drugs on thyroid function and hormones. To state the pathological classified of thyroid gland diseases. To state the cause of simple goiter. To define multinodular goiter To state the types of thyroiditis To highlight Hashimoto's disease in regard to pathophysiology, clinical manifestations and treatment of Hashimoto's thyroiditis To define De Quervain's thyroiditis, pathophysiology, clinical manifestations and treatment of it To discuss Riedel's thyroiditis in regarding to pathophysiology, clinical manifestations and treatment of To discuss clinical manifestations and treatment of solitary thyroid nodule To functionally classify thyroid disorders, and the hormonal levels in it. Hypothyroidism instructional objectives To state definition, classification and prevalence

				of hypothyroidism. To remember the etiology and pathology of each cause of hypothyroidism. To define spontaneous atrophic hypothyroidism, state its prevalence and pathology, To define Hashimoto's thyroiditis, its prevalence, pathology, and clinical presentation. To discuss Drug-induced hypothyroidism. To discuss iodine deficiency endemic goiter and hypothyroidism. To report congenital hypothyroidism and dyshormonogenesis. To describe the pathogenesis of hypothyroidism: To state clinical features of hypothyroidism. To describe investigations of hypothyroidism. To discuss management of hypothyroidism
	Pituitary gland disorders	3	Dr. Nabil Najeeb	To define the term endocrinology and its etymology. To define the term hormone and its subtypes. To enumerate the ways of action of hormones. To outline the functions of hypothalamus. To state the functions of the pituitary gland. To make clear the control and feedback function of the pituitary gland with examples. To explain the forms of endocrine disorders. To outline the diseases that affect the endocrine glands.

				To define the types of autoimmune poly glandular failure or syndromes. To discuss multiple endocrine neoplasia. To discuss the pituitary gland tumors and the way by which they cause disease. To make clear how each of pituitary hormone disorder causes disease. To outline the management of pituitary adenomas. To define craniopharyngioma, manifestations and treatment. To define hypopituitarism To list the causes of hypopituitarism To outline the pathophysiology of hypopituitarism i.e. how hypopituitarism produces disease. To describe what clinical features do deficiency of each of the pituitary hormones produces? To enumerate some of the specific forms of hypopituitary syndromes
	Adrenal gland disorders	4	Dr. Nabil Najeeb	To describe the structural components of the adrenal gland. Explain the functions of these components and the hormones they produce. Do Discuss the hormonal regulation of cortisol secretion in the adrenal cortex. How does cortisol secretion relate to the feedback loop involving CRH and ACTH? What factors can stimulate or inhibit cortisol release? To explain the significance of the circadian rhythm in cortisol secretion. How does cortisol levels fluctuate throughout the day, and why is it

				important to consider these fluctuations when diagnosing conditions like hypoadrenalism or Cushing's syndrome? To understand the role that cortisol binding globulin play in the circulation of cortisol in the body? Describe the importance of the free fraction of cortisol in its biological activity. To know how do glucocorticoids, particularly cortisol, exert their effects on target cells? Discuss the role of glucocorticoid receptors and their impact on gene transcription. To explain the dual function of cortisol, including its ability to activate mineralocorticoid receptors. How does this relate to the regulation of blood pressure? To describe the role of 11-beta hydroxy steroid dehydrogenase in regulating cortisol activity. How does liqorice affect this enzyme, and what are the consequences for blood pressure? To discuss the physiological effects of cortisol on the body, including its impact on protein catabolism, fat and glycogen deposition, sodium retention, renal potassium loss, and the host response to infection. To compare the regulation of aldosterone secretion with that of cortisol. Explain the factors that stimulate renin secretion and its subsequent effects on aldosterone production. To elaborate on the actions of aldosterone in the body. How does increased potassium in the distal tubules lead to metabolic alkalosis? To explore the significance of adrenal androgens in the initiation of puberty. How are these

				androgens related to the secretion of ACTH and the process of adrenarche? To define Hypoadrenalism and categorize it. Explain the key differences in etiology between forms, including the role of ACTH in each.
	Pheochromocytoma	1	Dr. Nabil Najeeb	To understand the key characteristics of Pheochromocytoma, including its definition as a tumor of chromaffin tissue, its rarity, and the "rule of 10" associated with it. To recognize the clinical features of Pheochromocytoma, including paroxysmal hypertension, associated symptoms like pallor, palpitations, sweating, headache, and anxiety, as well as possible gastrointestinal disturbances, weight loss, glucose intolerance, and familial syndromes such as MEN type II. To learn about the investigations used to diagnose Pheochromocytoma, including the measurement of catecholamines in plasma and their metabolites in urine, the use of a suppression test with clonidine, abdominal CT scans, radiolabeled metaguanidine uptake, and selective venous sampling for noradrenaline. To understand the management of Pheochromocytoma, including the importance of surgery as the ultimate treatment, the use of alpha-receptor
	Congenital Adrenal Hyperplasia	2	Dr. Nabil Najeeb	To comprehend the synthesis of adrenal steroids and the enzymatic steps involved in steroidogenesis. To recognize the clinical features of Congenital Adrenal Hyperplasia, including the autosomal recessive nature of enzyme defects, the most common defect (21-hydroxylase), the potential

				effects on cortisol and aldosterone synthesis, and the possible consequences in infancy and later in life. To understand the other enzyme defects associated with Congenital Adrenal Hyperplasia, such as 17-OHase and 11-beta OHase, and their potential role in causing hypertension.
	parathyroid glands diseases	2	Dr. Nabil Najeeb	To understand the anatomy of the parathyroid gland: Identify the number and location of the parathyroid glands in relation to the thyroid gland. To comprehend the primary function of the parathyroid gland: Explain the role of the parathyroid gland in regulating serum calcium levels. Describe the mechanisms, both direct and indirect, through which the parathyroid gland regulates calcium levels, including its effects on the renal tubules, osteoclastic activity, and vitamin D activation. To distinguish between different forms of calcium in the body: Differentiate between ionized calcium and total calcium. Understand the significance of protein-bound calcium and its impact on total calcium levels. To calculate corrected serum calcium levels: Learn the formula for calculating corrected serum calcium in the presence of reduced proteins.

				To explain the role of calcitonin: 1Describe the secretion and function of calcitonin, including its
	Investigations of renal disease	1	Dr. Ali Sattar	To know what investigations are required to make a diagnosis in patients presenting with renal symptoms and signs
	Acute kidney injury	2	Dr. Ali Sattar	To know the definition of Acute kidney injury To understand risk factors and triggers of Acute kidney injury. To know the pathophysiology of Acute kidney injury To know how to diagnose Acute kidney injury To understand the line of management of Acute kidney injury
	Chronic kidney disease	2	Dr. Ali Sattar	Introduction and definition of CKD Discuss the incidence and prevalence Review the pathophysiolog Discuss the diagnosis and management of CKDDiscuss the prevention and treatment of CKD
	Renal replacement therapy	2	Dr. Ali Sattar	To Define Renal replacement therapy and to identify common types of Renal replacement therapy , as hemodialysis and peritoneal dialysis
	Glomerulonephritis	3	Dr. Ali Sattar	Discuss the definition and pathophysiology of GN Recognize the clinical presentations associated with GN Discuss the diagnosis and management of GN Identify common etiologies
	Renal vascular	2	Dr. Ali Sattar	To define Renal vascular disease

	disease			Discuss risk factors and methods of diagnosis of Renal vascular disease Discuss the clinical feature and management of Renal vascular disease
	Interstitial nephritis	2	Dr. Ali Sattar	Overview the epidemiology and pathogenesis of Interstitial nephritis Discuss the clinical presentation and testing Interstitial nephritis Discuss the management and complications of Interstitial nephritis
	Renal cystic disease	2	Dr. Ali Sattar	Describe the risk factors for Renal cystic disease Describe types and the cellular features of common Renal cystic disease Discuss the clinical presentations of Renal cystic disease
	Infection of the kidneys and urinary tract	2	Dr. Ali Sattar	Explain the signs and symptoms of Infection of the kidneys and urinary tract Describe the diagnostic investigations for Infection of the kidneys and urinary tract Summarize the management of Infection of the kidneys and urinary tract Explain the diagnosis and method of treatment.discuss the clinical aspects of pharmocoogy Identify the lines of management and prognosis

8.Tables of the Course

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ -٣.٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ١			طب مجتمع ١		طب مجتمع عملي١	
	طب مجتمع ٢		طب مجتمع عملي٢	باطنية ٢			
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ١			طب عدلي ١	اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢		باطنية ٢	
الخميس	جراحة ١		توليد ١			باطنية ١	اخلاقيات الطب ٢
	توليد ٢		جراحة ٢			طب عدلي ٢	

يكون الدوام في القاعات الدراسية كالاتي :

يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .

يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر

يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

تعلن لاحقا

٩/١١

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جامعة نينوى / كلية الطب

جدول التدريب السريري المرحلة الرابعة للعام الدراسي ٢٠٢٣- ٢٠٢٤ .

يكون التدريب ألسريري في كل مادة عشرة أسابيع فقط ، ويكون التدريب حسب تنسيب التدريسي

يبدأ الكورس الأول من ١٧ / ٩ / ٢٠٢٣ ويستمر لغاية ١٩ / ١١ / ٢٠٢٣ وكما مبين أدناه :

أ- الطب الباطني

ب- نسائية

ج - جراحة

يبدأ الكورس الثاني من ٢٦ / ١١ / ٢٠٢٣ ويستمر لغاية ٢٥ / ٢ / ٢٠٢٤ وكما مبين أدناه :

(تم احتساب فترة امتحانات نصف السنة والعطلة الربيعية ضمن هذا الكورس)

أ- جراحة

ب- الطب الباطني

ج - نسائية

٩/١١

يبدأ الكورس الثالث من ٣ / ٣ / ٢٠٢٤ ويستمر لغاية ٥ / ٥ / ٢٠٢٤ وكما مبين أدناه :

أ- نسائية

ب- جراحة

ج - الطب الباطني

9.Learning Resources

Textbooks:

- Davidson's Principle and practice of Medicine
- Macleod’s clinical examination
- Kumar and clarck’s clinical medicine,
- Harrison’s principles of internal medicine,
- ABC of clinical hematology
- Up to date and Medscape website

10.Additional Information

Contact: Dr. Waseem Hashim

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ahmed.muhammed@uoninevah.edu.iq

Location: فرع الطب الباطني

Community medicine for fourth year

1.General Information:

- **Subject**: Community Medicine
- **Code**: (425)
- **Credit hours**: 11 units(Theoretical 90 hours, 120 practical hours).
- **Course Language**: English.

2.Syllabus:

-General Epidemiology 8hrs

- components of a rate, ratio and proportion
- fertility, morbidity and mortality
- major epidemiological studies (cross-sectional, longitudinal, case-control and cohort)
- association and causation and list causal criteria
- Screening

-Epidemiology of communicable diseases 29 hrs

- Prevention and control of the infectious diseases
- Chicken pox, small pox and (Measles)
- Rubella & Mumps
- Sexually transmitted diseases (STDs), AIDS
- Cholera & dysentery and Streptococcal diseases
- Poliomyelitis, Rabies
- Diphtheria
- Tetanus Anthrax & plaque
- Meningitis &TB
- Whooping cough, Typhoid & paratyphoid fever
- Toxoplasmosis, Nosocomial infections
- Influenza, Avian flu
- Corona viruses
- Brucellosis, malaria
- Arthropod borne diseases
- Hemorrhagic fevers & Viral hepatitis (types)

-Medical sociology 8hrs

- Medical Sociology, definitions and illuminations
- Social organization and Social Psychology
- Sick Role, Healing Role and Health Seeking Behavior

- Socio- Cultural
- Factors in Health and Disease
- Social Pathology
- Modern Medicine

-Epidemiology of non-communicable diseases 7 hrs

- Diabetes mellitus
- Coronary heart disease
- Elderly (Geriatrics)
- Cancer
- Osteoarthritis (OA)
- Rheumatic Heart Disease
- Mental health

-PHC center 2 hrs

- The concept of Health care services, planning
- Evaluation & concept of systems

-Maternal child health 10 hrs

- Reproductive health
- Risk screening, Nutrition, tetanus immunization and health education natal and post natal care, Breast feeding
- Mortality indicators in MCH
- Young child clinic
- -Family Planning, Food Supplementation,Female Education, Low Birth Weight
- Immunization, Integrated Management of Childhood Illness (IMCI)

-Environmental health 8 hrs

- Type of environments
- Water pollution, purification, treatment measures
- Air pollution, Health effects
- Light and Noise
- Radiation, Principles of arthropod control
- Mosquito control measures

Green house phenomenon and ozone layer depletion

-Occupational health 5 hrs

- Introduction, objectives, health hazards Safety measures

Occupational lung diseases
Occupational skin diseases,
Occupational cancer
Lead poisoning
Mercury Poisoning

-Evidence based medicine 4 hrs

Approach, models, contents , principles and practice of health education

-School health services 2hrs

- Health problems of the school child, Objectives of school health service
- Aspects of School Health Service

-Health care administration 4 hrs

- The concept of Health care services, planning
- Evaluation & concept of systems

3.Learning Objective:

Knowledge

General Epidemiology: At the end of the course the student should be able to Interpret the distribution of disease in a population in terms of person, place and time, Describe the components of a rate, ratio and proportion, measure fertility, morbidity and mortality in community, Describe major epidemiological studies and Define sensitivity, specificity and predictive values and compute these measures given the necessary data

Control of communicable Diseases: At the end of the course the student should be able to list the steps of investigating and managing an epidemic of a communicable disease, identify the major communicable diseases prevalent in Iraq, Demonstrate the main epidemiological features, specific preventive measures and control measures of common communicable diseases in Iraq.

Control of non-communicable Diseases: At the end of the course the student should be able to describe the main epidemiological features, risk factors and preventive measures of major non-communicable disease, appreciate the role of primary health care approach in dealing with mental health

Occupational health: At the end of the course the student should be able to describe major effects of work on health, Recall major occupational disease, list major groups of carcinogens with special reference to the situation in Iraq

Maternal and child health: At the end of studying these lectures the student supposed to be able to define reproductive health and its elements, Identify the health services available for

mothers, describe the objectives of FP, ANC, delivery, PNC, understand the role of FP, ANC, delivery, PNC in preventing MMR,IMR, Identify the problems related to delivery of maternal health service delivery

Medical sociology: At the end of studying these lectures the student supposed to be able to define and classify social sciences, define community and its characteristics, set apart between classification of social differentiation, identify sick role and health seeking behaviors

Environmental health: At the end of the course the student should be able to define environmental health and list its main concerns, list major risks associated with environmental exposures

Primary health care: At the end of the course the student should be able to define PHC, elements of primary healthcare Levels of care, identify obstacles to PHC, Principles of primary health care

Health care administration: At the end of studying these lectures the student should be able to understand the concept of Health care services, planning, Evaluation & concept of systems

Evidence based medicine and health education: At the end of studying these lectures the student supposed to able to understand the concept of evidence based medicine

School health services: The At the end of studying these lectures the student supposed to be able to define school health ,knowing how to solve the health problems of the school child

- **lifelong learning**: Students will be encouraged for lifelong learning, by
    - **Critical Thinking:**

Encourage students to question assumptions, analyze information, and evaluate evidence critically.

Incorporate case studies, problem-solving exercises, and discussions that require thoughtful analysis.

- **Independent Learning**:

Foster self-directed learning by providing resources such as updated textbooks, online courses, and research articles.

Encourage students to explore topics beyond the curriculum and pursue their interests.

- **Technology Integration:**

Using technology tools for learning, such as educational apps, virtual simulations, and online platforms.

Teach digital literacy skills, including effective internet searching and evaluating

- **objectives:**

1. Develop theoretical and practical scientific knowledge among the students of the Faculty of Medicine regarding the preventive, curative, social and psychological aspects of diseases that are common in our society

2.Teaching students the methods and arts of preventive and social medicine and providing students with theoretical and practical applied information in all aspects of preventive medicine because of the great importance of this subject in predicting diseases and preventing their risks before they occur before and then studying their epidemiology and methods of controlling them

3. Awareness of the elements of the environment,

4. Develop and equip communication, health education and health management skills efficiently

5.Understand the strategies of primary health care programs applied in the health institutions of the country

6. Alert the student to the role of medical sociology in health and disease in integration with the unit of Psychiatry

7. The concept of evidence-based medicine

Skills:

Students will perform Full practice and clear practical knowledge of all communication skills with all types of patients through the practice of all types of basic and special skills with patients

Communication:

Students will demonstrate effective Strategies for teaching communication skills Doctor-patient interpersonal skills

- **Skills objectives of the program includes**

Doctor-patient interpersonal skills

Information gathering skills

Information giving skills

Dealing with angry patients

Attitudes:

Empathy and Compassion:

Students will exhibit empathy and compassion in their interactions with angry patients and their families.

They will understand the emotional impact of illness on children and caregivers

Professionalism:

Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

They will uphold professional standards in their clinical practice

Cultural Sensitivity:

Students will show cultural sensitivity and respect for diverse backgrounds.

They will recognize cultural differences and adapt their approach accordingly.

- **Ethical Practice**: students will consistently adhere to ethical principles in emergency department prioritizing the well-being and rights of children.
- **Patient-Centered Care**: students will provide patient-centered care that involves families in decision-making and respects their preferences and needs.

lifelong learning:

Continuous Improvement: Students will engage in lifelong learning and continuous professional development to stay current with advances in dealing with patients

4. Outcomes for Educational Program

Knowledge:

- **Outcome 1:** Students will be able Interpret the distribution of disease in a population in terms of person, place and time.

Describe the components of a rate, ratio and proportion

List, define and compute common rates used to measure fertility, morbidity and mortality in community

Define absolute risk, relative risk and attributable risk. Interpret their use in epidemiological situation

Make a simple design of an epidemiological study to identify risk factors for a given disease

Analyze and interpret results obtained from relevant epidemiological studies.

Screening (Define sensitivity, specificity and predictive values and compute these measures given the necessary data)

- **Outcome 2:** Students will be able to Identify the major communicable diseases prevalent in Iraq

  Demonstrate the main epidemiological features, specific preventive measures and control measures of common communicable diseases in Iraq

  Describe the main epidemiological features, risk factors and preventive measures of major non-communicable diseases (CHD, DM, and Cancer)

  Appreciate the role of primary health care approach in dealing with mental health

- **Assessment:** Students will be assessed through formative and summative theoretical and practical examinations

Skills:

- **Outcome 3:** Students will effectively communicate with Full practice and clear practical knowledge of all communication skills with all types of patients through the practice of all types of basic and special skills with patients
- **Outcome 4:** Students will be able to Interpret the distribution of disease in a population in terms of person, place and time, Describe the components of a rate, ratio and proportion, measure fertility, morbidity and mortality in community, Describe major epidemiological studies and Define sensitivity, specificity and predictive values and compute these measures given the necessary data

  Outcome 5: Students will be able to make students know how to write a scientific paper, collect, analyze, interpret the data, write and present data and discussion

- **Assessment:** Students will be assessed through formative and summative practical examinations

Attitudes:

- **Outcome 6:** Students will be able Experiential learning in core communication skills
- **Outcome 7:** Students will be able to know the Protocol for breaking bad news, Dealing with angry patients, The very short contact
- **Assessment:** Students will be assessed through formative and summative practical examinations regarding communication skills

Evidence-Based Practice:

  - **Outcome**: Graduates will be proficient in identifying evidence-based guidelines and best practices in prevention og communicable diseases

Assessment: Students will critically evaluate clinical guidelines during theoretical analytic MCQ questions and through case-based clinical small group clinical discussions to inform their practice

Lifelong learning

- **Critical Thinking Enhancement**:
- **Outcome:** Graduates will demonstrate improved critical thinking skills by analyzing complex problems, evaluating evidence, and making informed decisions.
- **Assessment**: Students will participate in analysis of case scenarios in theoretical MCQ questions and also in clinical case-based discussions, debates, and critical analysis exercises.
- **Independent Learning Proficiency:**
- **Outcome:** Graduates will be adept at self-directed learning, seeking out relevant resources beyond the classroom.
- **Assessment:** Students will create personalized learning plans, explore additional readings, and engage in independent seminars and student researches
- **Digital Literacy Development:**
- **Outcome:** Graduates will effectively use technology for learning, research, and communication.
- **Assessment:** Students will demonstrate proficiency in online searching, evaluating sources, and using educational apps through engaging in independent seminars and student researches

Additional Considerations:

Feedback and Revision:

Gather feedback from students and instructors throughout the program.

Feedback delivered to students by the college regarding students' opinions of teaching staff and educational program

Use feedback to identify areas for improvement, update content, and revise teaching methods to continuously enhance the curriculum**.**

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**: Academic year

For the theoretical part:

- Weekly Hours: Three hours per week (first semester)

- Weekly Hours: Three hours per week (second semester)
- Total: 45 hours per academic year

For the practical part:

- Weekly Hours: 4 hours per week first semester
- 4 hours per week second semester
- Total: 120 hours for each group in the academic year

- **Location**:

-For the theoretical part: Lecture Hall in the college campus

-For the practical part: Skill hall in the college and AL QUDUS primary health care center

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Evidence-based learning
- Case-Based Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching theoretical part :

The lecture is conducted by the lecturer in the lecture hall with the

commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.

2. Adopting the Google classroom approach, in downloading lectures

few days prior to date of lecture, also downloading pictures and

videos if needed, in order to assist the student in understanding

3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.

4. Supporting the lecture with educational techniques through the

computer and data display device.

5. Make a short **formative exam** at the end of each lecture on the topic of the

lecture. The examination has several forms including a few MCQ

displayed at the end of power point presentation, or case scenarios

and problem-solving questions delivered to the student orally or

through power point presentation

-For the practical part.

- Small group teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Ward Rounds
- Peer Teaching and Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching practical part :

During the practical course, students will receive the following training:

- Preparation and discussion of medical research
- To make students know how to write a scientific paper, collect, analyze, interpret the data, write and present data and discussion
- Weekly practical exercises that feed into the topic of communication skills between the doctor and the patient

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams

In the theoretical part

- Make a short **formative examination** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation
- Sending MCQ by google format

In the practical part

Formative assessment of students during the course through history presentation, clinical examination and discussion

- **Summative Assessments**:
  - **Theoretical:** Midterm exams, end term exams
  - **Practical:** OSCE
- **Continuous Feedback**: Provided throughout the course

Components of Assessment:

Evaluating students through conducting theoretical and practical exams in addition to allocating a special degree to students' activities represented by diaries as follows:

1.First semester degree (10%)

- 8% practical first semester exam and includes questions to solve epidemiological dilemmas
- 1% practical diary
- 1% Theoretical Diary Short Exam Coz

2.Theoretical exam in the middle of the academic year (from 20 degrees)

3.Second semester degree (10%)

5%Practical Second Semester Exam The practical OSCE exam in Communication Skills subject includes 6 stations covering the subject in a balanced and complete manner

1% Theoretical Diary Short Exam Coz

4% Research

(40%) of Annual pursuit

4.The theoretical exam at the end of the school year (from 60 degrees) includes multiple choice questions, problem-solving questions and evaluative questions

- **Pass Mark**: 50%

-*Detailed Breakdown*

❖ **Written Exams (90%)**:

- Midterm Exam: 20% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), and case-based questions
- End term Exam: 60% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs
    - **Pass Mark**: 50%
    - Students must achieve a combined score of at least 50% from all components to pass the course.
    - **Continuous Assessment**
    - **Examples**: formative MCQ After each lecture

Assessment mark/fourth stage

Annual quest	Mid-year(theoretical)	Final year theoretical	Total
20 mark	**20 mark**	**60 mark**	**100**
Epidemiological exercise **Communication skill** **Research**	**MCQ** **Categorized according to blue print**	**MCQ** **Categorized according to blue print**	
20	**20**	**60**	**100**

Blue print final exam -1st trial

Blueprint for community medicine

…….. **Group No.:** **College/ Department: college of medicine/Ninevah univ**

Unit/ Course/ Subject: ……final assessment exam for fourth

			Cognit				Ass. Tool	
	Unit LOs	mode of teachings	No. of test	Remembering(direct question	Understanding(indirect question	Appl./ Problem solving	MCQ	EMQ
1	Infectious diseases	L	20	20	0	0	20	
2	Epidemiology		8	2	3	3	8	
3	Occupational Health	L	3	3	0	0	3	
4	EBM	L	2	2	0	0	2	
5	Adminstration	L	2	1	1	0	2	
6	Reproductive health	L	20	10	10	0	20	
7	MEDICAL SOCIOLOGY	L	11	8	3	0	11	
8	Non Communicable		20	14	6	0	20	
9	Environment and health	L	10	9	1	0	10	
10	Primary Health Care	L	4	2	2	0	4	
66	Total		100	71	26	3	100	

6.Instructional Objective of the lectures:

Lecture title	No. of lecture	Faculty member	Instructional objectives
Epidemiological course	9		
Introduction, epidemiological uses and approaches	**1**	د. هدى عباس	**At the end of this lecture the student should be able to:** • Define epidemiology • Enumerate the function of epidemiology • Describe the characteristic of epidemiology(place, person and time) • Understand source of data for epidemiological studies • Understand natural history of diseases and ice berg phenomenon
-The concept of association	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Define **Association** (negative and positive association) • Identify types of **causation** • Enumerate criteria of causal association • Put the studies in order according to power

Measurements (Rates, Ratios And Proportion) Morbidity& Mortality Rates	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Calculate certain epidemiological measurements like rate, proportion and ratio • Morbidity measurements like incidence and prevalence • Enumerate the uses of incidence and prevalence • Identify types of prevalence • Relationship between incidence and prevalence
Screening and quality control of diagnostic tests	2	د.هدى عباس	**At the end of this lecture the student should be able to:** • Define the **validity** (internal and external) • Define **reliability** • Identify **screening** (types of screening) • Identify the **criteria** of a good screening test • Define **gold standard test** • Calculate **(sensitivity, specificity, PPV, NPV, LR and accuracy)** • Identify uses of **sensitive** and **specific tests**

			• **Evaluate** screening program • **Criteria** of screening program • **Combination** of screening tests
-Investigation of epidemics	1	د.هدى عباس	**At the end of this lecture the student should be able to:** • Define **Epidemic** • Identify types of **epidemic(point source and propagated)** • How are **outbreak detected** (steps of detection)
Epidemiological studies (Case report and case series, cross-sectional study, Case Control study and cohort)	2	د. هدى عباس	**At the end of this lecture the student should be able to:** • Identify the types of epidemiological studies • Classify the descriptive studies • **Case report and series** (definition, objectives, advantage and disadvantage) • **Ecological studies**(definition, objectives, advantage and disadvantage) • **Cross sectional study** (definition, objectives, advantage and disadvantage) • Classify the analytic studies • **Case control studies** (definition, objectives, advantage and

			disadvantage) • Source of selection of cases • Selection of control(types of control) • Factors affecting validity (confounding, bias) • Define cohort study (objective, advantage and disadvantages) • Calculate (relative risk, attributable risk and attributable risk percent) •
(Randomized control trial)	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Identify the differences between experimental and analytic studies • Classify the **clinical trial study** • **Randomized Controlled Clinical Trial (RCCT) (**definition, objectives, strength and limitation) • Define **random selection** • How Select the study groups (reference population, experimental population) • Identify the causes of exclusion from the study • Define **Volunteer Bias**, **Randomization** • How to maintain compliance

			• Identify Causes of non –compliance • Define **placebo,** identify the limitation of placebo
Infectious diseases course	29		
-Prevention and control of the infectious diseases	3	د.ظلال احمد	• At the end of the lecture the student would be able to :- • Define infectious disease • Point out the occurrence of the disease. • Define the methods of assessment for infectious diseases • List the main preventive measures.
-Chicken pox, small pox and (Measles)	2	د.ظلال احمد	At the end of this lecture students will be able to: • Define measles • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main type of infectious agents for measles. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of measles and explain how infectious agents are

			transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of measles • Describe the stages in the natural history of measles
-Rubella & Mumps	2	د. احمد البكري	At the end of this lecture students will be able to: • Define Rubella and mumps • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main type of infectious agents for Rubella and mumps. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of mumps and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of Rubella and mumps • Describe the stages in the natural history of Rubella
-Sexually transmitted diseases (STDs), AIDS	3	د. ظلال احمد	At the end of this lecture students will be able to: • Define AIDS • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main type of infectious agents

			for AIDS. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of AIDS and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of AIDS • Describe the stages in the natural history of AIDS
schistosomiasis	1	د. احمد البكري	At the end of this lecture students will be able to: • Define schistosomiasis • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for schistosomiasis. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of schistosomiasis and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of schistosomiasis • Describe the stages in the natural history of schistosomiasis

-Cholera & dysentery	3	د احمد. ظلال	At the end of this lecture students will be able to: • Define dysentery • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for dysentery. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of dysentery and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of dysentery. • Describe the stages in the natural history of dysentery
Rabies	1	د. احمد البكري	At the end of this lecture students will be able to: • Define rabies • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main type of infectious agents for rabies. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of rabies and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible

			hosts and the main risk factors for development of rabies • Describe the stages in the natural history of rabies
Poliomyelitis, -	1	د. ظلال احمد	At the end of this lecture students will be able to: • Define poliomyelitis • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for poliomyelitis. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of poliomyelitis and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of poliomyelitis • Describe the stages in the natural history of poliomyelitis
Diphtheria Tetanus -Anthrax & plaque	3	د. احمد البكري	At the end of this lecture students dents will be able to: • Define Diphtheria and anthrax • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for diphtheria • Describe the main reservoirs of infectious

			agents. • Describe the chain of transmission of diphtheria and anthrax and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of diphtheria • Describe the stages in the natural history of diphtheria and anthrax
Meningitis &TB	2	د. ظلال احمد	At the end of this lecture students will be able to: • Define meningitis • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for meningitis. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of meningitis and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of meningitis • Describe the stages in the natural history of meningitis
-Whooping cough, Typhoid & paratyphoid fever	1	د. احمد البكري	At the end of this lecture students will be able to: • Define whooping cough

			• Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for whooping cough and typhiod • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of whooping and typhoid and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of typhoid and whooping • Describe the stages in the natural history of whooping
-Corona viruses	1	د. ظلال احمد	At the end of this lecture students will be able to: • Define corona • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for corona • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of corona and typhoid and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of corona

			• Describe the stages in the natural corona
- Nosocomial infections	2	د. احمد البكري	• Define nosocomial infection • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for nosocomial infection . • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of nosocomial infection and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of nosocomial infection • Describe the stages in the natural history of nosocomial infection
-Influenza, Avian flu Brucellosis, malaria	1	د. ظلال احمد	At the end of this lecture students will be able to: • Define malaria, brucella • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for malaria.brucella • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of malaria and explain how infectious agents are transmitted by direct and indirect modes.

			• Describe the characteristics of susceptible hosts and the main risk factors for development of malaria • Describe the stages in the natural history of malaria
-Arthropod borne diseases	1	د. احمد حكمت	At the end of this lecture students will be able to: • Define arthropod borne infection • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for arthropod borne infection. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of arthropod borne infection and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of arthropod borne infection • Describe the stages in the natural history of arthropod borne infection
-Hemorrhagic fevers & Viral hepatitis (types)	1	د. ظلال احمد	At the end of this lecture students will be able to: • Define hemorrhagic fever • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for hemorrhagic fever.

			• Describe the main reservoirs of infectious agents. • Describe the chain of transmission of hemorrhagic fever and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of hemorrhagic fever • Describe the stages in the natural history of hemorrhagic fever
foodborne diseases	1	د. احمد البكري	At the end of this lecture students will be able to: • Define foodborne diseases • Use correctly all of the key terms regarding epidemiology of communicable diseases • Identify the main types of infectious agents for foodborne diseases. • Describe the main reservoirs of infectious agents. • Describe the chain of transmission of foodborne diseases and explain how infectious agents are transmitted by direct and indirect modes. • Describe the characteristics of susceptible hosts and the main risk factors for development of foodborne diseases. • Describe the stages in the natural history of foodborne diseases

Non communicable disease course	6		
-coronary heart disease	1	د. احمد حکمت	By the end of this lecture the student will be able to: .Define IHDs .Identify burden of the problem .High light most common types of IHDs .Explain main risk factors of IHDs .Determine best way of prevention and control
-elderly (Geriatrics)	1	د. احمد حکمت	By the end of this lecture the student will be able to: .Define the elderly and their diseases .Identify burden of the problem .High light most common types of elderly diseases .Explain main risk factors of elderly diseases .Determine best way of prevention and control
-cancer	1	د. احمد حکمت	By the end of this lecture the student will be able to: .Define cancer .Identify burden of the problem .High light most common types of cancer .Explain main risk factors of cancer .Determine best way of prevention and control
Osteoarthritis (OA)	1	د. احمد حکمت	By the end of this lecture the student will be able to:

			.Define OA .Identify burden of the problem .High light most common types of OA .Explain main risk factors of OA .Determine best way of prevention and control
-Rheumatic Heart	1	د. احمد حكمت	By the end of this lecture the student will be able to: .Define RHDs .Identify burden of the problem .High light most common types of RHDs .Explain main risk factors of RHDs .Determine best way of prevention and control
Diabetes Mellitus	1	د. احمد حكمت	By the end of this lecture the student will be able to: .Define DM .Identify burden of the problem .High light most common types of DM .Explain main risk factors of DM .Determine best way of prevention and control
Occupational medicine course	5		
-Introduction, objectives, health hazards Safety measures	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Define occupational disease and occupational environment. • Understand Interactions at work

			environment • Understand Types of occupational hazards and diseases • How to prevent occupational diseases
-Occupational lung diseases	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Enumerate Four main categories of OLD can be identified: • Define Occupational asthma. • Define Chemical pneumonitis. • Define Pneumoconiosis [fibrotic and non-fibrotic]. • Define Granulomata.
-Occupational skin diseases, Occupational cancer	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Define occupational skin disease • Classify the agents causing occupational skin diseases • Determine frostbite , erythema abigne and vetilligo • Define occupational; cancer • Prevention and control
-Lead poisoning	1	د. هدى عباس	**At the end of this lecture the student should be able to:**

			• Define lead poising • Identify the types of lead poising • Causes and mode of absorption • Distribution and excretion of lead • Prevention and control
-Mercury Poisoning	1	د. هدى عباس	**At the end of this lecture the student should be able to:** • Define mercury poising • Identify the types of mercury poising • Causes and mode of absorption • Distribution and excretion of mercury • Prevention and control
Reproductive health course	9		
-Reproductive health	2	د. ظلال احمد	At the end of this lecture the student should be able to: • to make quality maternal and reproductive health services accessible to the people living in rural areas. • To enhance the prevention of diseases that might affect maternal health. • To broaden the institutional and human resource capacities of local governments, health centers, communities, and men and women involved in reproductive health. • To improve the health of women and

			children to guarantee safe maternity and child survival, with the intermediate goal of lowering IMR and MMR.
-Risk screening, Nutrition, tetanus immunization and health education natal and post natal care, Breast feeding	2		At the end of this lecture the student should be able to identify the integration of existing maternal tetanus immunization programs within antenatal care (ANC) services for pregnant women i
-Mortality indicators in MCH	1	د. ظلال احمد	At the end of this lecture the student should be able to Measure the mortality indicators MCH
-Young child clinic	1	د.ظلال احمد	At the end of this lecture the student should be able to Provide assistance for maladjusted children. • Providing care and guidance for mentally retarded children • Providing care and assistance for children with academic disorders like learning disabilities, ADHD, and slow learners • Helping parents and families in caring and upbringing of maladjusted children • Providing guidance and counseling to parents and families to deal with the children in need
-Family Planning, Food	1	د. ظلال	At the end of this lecture the student should

Supplementation,Female Education, Low Birth Weight		احمد	be able to Define FP Measure low birth weight
-Immunization, Integrated Management of Childhood Illness (IMCI)	1	د. ظلال احمد	At the end of this lecture the student should be know the schedule of Iraqi program of immunization
Sociology course	8		
-Medical Sociology, definitions and illuminations	1	د.هدى عباس	• **At the end of this lecture the student should be able to Define to** • Differentiate between; socialism, capitalism and socialization • Identify; norms, deviance and social control. • Recognize; authority, culture, race & ethnicity. • Spot; standard of living, social defense, social problems. • Mark systems of society
Social organization and Social Psychology	1	د. هدى عباس	**At the end of this lecture the student should be able to**: • Define community and its characteristics. • Set apart between classification of social differentiation. • Identify occupational social classification.

			• Recognize factors of social class differences. • Describe life styles and their relations to health.
-Social organization and Social Psychology	1	د. هدى عباس	**-At the end of this lecture the student should be able to** • Define social organization • Classify social group • Define the family and its importance • Recognize Family life cycle and family phases • Identify types of family and its function
-Social organization and Social Psychology	1	د. هدى عباس	**At the end of this lecture the student should be able to** • Define. Sick Role and health seeking behavior • Identify Types of medical belief system • Identify Reasons for the power of traditional (folk) medicine • Define status and its types. • Describe Characteristics of Sick Role • Describe Preferable Attitudes for Doctors • Identify CONFLICTS IN THE DOCTOR'S LIFE:
-Sick Role, Healing Role and Health Seeking Behavior -Socio- Cultural Factors in Health and Disease	2	د. هدى عباس	**At the end of this lecture the student should be able to** • Define. Social psychology • Identify scope of psychology • Identify behavior

			• Identify types of behavior • Define motivation, attitudes and perception, learning, conflict • Identify types of personality
-Social Pathology	1	د. هدى عباس	**-Identify Behavioral problems in school aged children** • Define Juvenile Delinquency • Identify Preventive Measures of Juvenile Delinquency • Define Battered Baby Syndrome • Define child street and abuse and child labor
Modern medicine	1		**At the end of this lecture the student should be able to** • :Identify Characteristics of Doctors in Modern Medicine • Identify Roles and Functions of Hospitals in the Community • Identify Problems of Modern Medicine • Identify The guidelines for good doctor- nurse relationships • Identify Autism and its causes
Environmental health course	8		
Introduction of Environmental health	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Define the terms environment , sanitation , environmental sanitation & environmental health • Identify main components of environment. • Enumerate ecological factors . • Categorize the scope of environmental health .

			• Describe specific problems facing environmental health . • Outline types of environment . • Arrange the addressing health problems .
-Type of environments	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Describe hydrologic cycle , uses & requirements of water . • Identify sources of drinking water .
-Water pollution, purification, treatment measures	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Identify advantages & disadvantages of each water source • .Discuss water pollution types , indicators & water related diseases . • Specify water purification plant purposes , methods & steps . • Identify sources & treatment measures of bad odor & hardness Arrange laboratory examinations of water
-Air pollution, Health effects	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • -Determine functions of air . • Identify sources of air impurity . • Discuss the self cleansing mechanisms of outdoor air . • Describe characteristics of occupied room air & factors affecting comfort feeling of

			individuals. • Specify meteorological factors affecting atmospheric pollution levels . • Determine air pollution (definition , sources effect , disinfection methods and preventive & control measures
-Light and Noise and radiation	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • 1-Describe the requirements of good lighting . • Discuss suggestions for improving daylight illumination . • Define the terms noise and noise pollution . • Determine important properties for noise . • Specify basic instruments used in noise studies . • Identify effects of noise exposure . • Arrange control measures for noise
Principles of arthropod control	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • 1-Define relevant terms used in medical entomology . • Identify arthropods of medical importance & its distinctive characters . • Enumerate arthropod-borne diseases . • Determine methods of transmission of arthropod-borne diseases . • Specify principles of arthropod

			control
Mosquito control measures	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Describe groups of mosquitoes related to disease transmission . • Discuss habits of mosquitoes . • Classify mosquito-borne diseases . • Determine mosquito control measures . • Specify house flies habits & ways of disease transmission . • Arrange fly control measures
- green house phenomenon and ozone layer depletion	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Classify sources of radiation . • Identify types of radiation . • Enumerate biological effects of radiation & radiation protection . • Determine elements of meteorological environment . • Specify effects of atmospheric pressure on health • .Discuss effect & preventive measures of air temperature . • Clarify climate related terms & parameters
PHC care course	5	د. هدى عباس	
Introduction to Primary	1	د. هدى	**At the end of this lecture the student should be able to:**

health care		عباس	Health care– Definition, Levels of health care & characteristics. Primary Health Care – Definition (Human services , includes, depending upon(Essential Components/Services
principles and rationale-Obstacles to PHC center	2	د. هدى عباس	**At the end of this lecture the student should be able to:** Principles of Primary Health Care Primary Health Care – Benefits, Reform, Involves, Relies on, Aims & Global Target
-ARI control program-ORT Programs	1	د. هدى عباس	**At the end of this lecture the student should be able to know:** • Staff for PHC Number of Posts • Indicators of Health(Characteristics, comes from, classification • WHO Programs organization • ARI control program; Strategy to control ARI, Objectives of ARI, Organization of ARI, Classification of illness • ORT Programs organization ; Component, objective
Health care administration course	4		
-The concept of Health care services, planning	2	د. امنة عامر	**At the end of this lecture the student should be able to:** • Definition and steps • Essential Factors in Medical Administration:

			• Purposes of Administration • Relative Factors Of Administration • Elements of Administration • Planning (Criteria, Types, Stages) • Stages of health planning
Evaluation & concept of systems	2	د. امنة عامر	**At the end of this lecture the student should be able to:** • Definition and activities of Organization structure • Organization types • Motivation • Stages of Needs that are essential to the development of human • items can induce strong motivation in human being • Evaluation of health program • Scientific Hospital administration
Evidence based medicine course	4		
Introduction to EBM	2	د. امنة عامر	**At the end of this lecture the student should be able to:** • Definition of Evidence-Based Medicine (EBM) • The integration of Evidence-Based Medicine (EBM)

			• Problems of Modern Medicine • The evolution of information resources for evidence-based decisions • Why we should use EBM? • Methodology in EBM • Access to current clinical evidence ranges from • SIGN classification for grading evidence • Searching Tools for evidence-based decisions :
-Health education, approach, models, contents , principles	2	د. امنة عامر	**At the end of this lecture the student should be able to identify:** Health education, approach, models, contents , principles
School health services course	2		
-Health problems of the school child, Objectives of school health service	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • Identify common dental health problems among children . • Determine essential elements for dental carries development . • Discuss epidemiology of dental carries in developed & developing countries .
-Aspects of School Health Service	1	د. امنة عامر	**At the end of this lecture the student should be able to:** • preventive measures for dental carries . Specify activities of school health services in Iraq

7.Instructional objectives of the clinical sessions:

Topics	Week	Faculty member	Instructional objective
Introduction	**1st**	**د. هدى عباس**	At the end of studying this practical lesson the student supposed to be able to describe the components of a rate, ratio and proportion
Measurements of morbidity	**2nd**	**د. امنة عامر**	At the end of studying this practical lesson the student supposed to be able to list, define and compute common rates used to measure fertility, morbidity and mortality in community
Morbidity measures	**3rd**	**د.هدى عباس**	At the end of studying this practical lesson the student supposed to be able to calculate incidence and prevalence
Antenatal care	**4th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to calculate ANC coverage
Case report and series	**5th**	**د. هدى عباس**	At the end of studying this practical lesson the student should be able to describe major epidemiological studies
Ecological study	**6th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to describe major epidemiological studies
Case control study	**7th**	**د. هدى عباس**	At the end of studying this practical lesson the student should be able to define and calculate odd ratio and Interpret its use in epidemiological situations
Cohort study	**8th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to define and calculate relative risk and attributable risk and interpret their use in epidemiological situations
Interventional studies	**9th**	**د. هدى عباس**	At the end of studying this practical lesson the student should be able to calculate and analyze (NNT) and interpret results obtained from relevant epidemiological

			studies
Screening of diseases	**10th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to define sensitivity, specificity and predictive values and compute these measures given the necessary data
Screening of diseases	**11th**	**د. هدى عباس**	At the end of studying this practical lesson the student should be able to define sensitivity, specificity and predictive values and compute these measures given the necessary data
Revision	**12th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to differentiate types between epidemiological studies
Food poisoning	**13th**	**د. هدى عباس**	At the end of studying this practical lesson the student should be able to describe the main epidemiological features, risk factors and preventive measures with food poisoning and how outbreak investigated
Food poisoning	**14th**	**د. امنة عامر**	At the end of studying this practical lesson the student should be able to describe the main epidemiological features, risk factors and preventive measures with food poisoning and how outbreak detected
Evaluation	**15th**	**د. هدى عباس**	

Topics	**Faculty member**	**week**
Strategies for teaching communication skills	**د. سارة عبد الحميد**	**1st**
Experiential learning in core communication skills	**د. جمانة خير الدين**	**2nd**
Doctor-patient interpersonal skills	**د. سارة عبد الحميد**	**3rd**

Information gathering skills	**د. جمانة خير الدين**	**4th**
Information giving skills	**د. سارة عبد الحميد**	**5th**
Advanced communication skills	**د. جمانة خير الدين**	**6th**
Skills for motivating patient adherence to treatment and management plan and health education	**د. سارة عبد الحميد**	**7th**
Protocol for breaking bad news	**د. جمانة خير الدين**	**8th**
Dealing with angry patients	**د. سارة عبد الحميد**	**9th**
The very short contact	**د. جمانة خير الدين**	**10th**
Special medical situation	**د. سارة عبد الحميد**	**11th**
Disclosing medical errors and side effect of treatment	**د. جمانة خير الدين**	**12th**
Follow through the student's projects	**د. سارة عبد الحميد**	**13th**
Follow through the student's projects	**د. جمانة خير الدين**	**14th**
Evaluation	**د. سارة عبد الحميد**	**15th**

	Session title	**No. Of sessions**	**Faculty member**	**Instructional objective**
1	Practical sessions	30	د. هدى عباس د. امنة عامر د. سارة عبد الحميد د. جمانة خير الدين	At the end of the training period, the student should be able to: • Interpret the distribution of disease in a population in terms of person, place and time. Describe the components of a rate, ratio and proportion List, define and compute common rates used to measure fertility, morbidity and mortality in

				community Define absolute risk, relative risk and attributable risk. Interpret their use in epidemiological situation Distinguish between association and causation and list causal criteria • Strategies for teaching communication skills

Scientific Research Activities:

Instructional objectives:

The Community Medicine Unit teaches students the principles of scientific research and the concepts of medical statistics, where it divides Students into groups and each group is tasked with completing research. Outstanding research allows it to participate at the annual conference of student research.

The teachers of the unit of Family and Community Medicine supervise the students' research and the titles of the research are discussed between teachers and students and after agreeing on the titles, the students are divided into small groups, each group does not exceed five students and the students collect data under the supervision of the teachers.

Note that a complete and detailed theoretical lecture on how to write a scientific research was given, and special groups were made on the telegram site to help students answer their inquiries, and after completion it is discussed by professors and make some amendments if any, in addition to that the Division of Family and Community Medicine conducts a student conference to discuss student research annually

8.Tables of the Course

جامعة نينوى – كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ -٣.٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ١			طب مجتمع ١		طب مجتمع عملي١	
	طب مجتمع ٢		طب مجتمع عملي٢	باطنية ٢			
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ١			طب عدلي ١	اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢		باطنية ٢	
الخميس	جراحة ١		توليد ١			باطنية ١	اخلاقيات الطب ٢
	توليد ٢		جراحة ٢			طب عدلي ٢	

يكون الدوام في القاعات الدراسية كالاتي :

يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .

يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر

يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

تعلن لهنا

٩/١١

9.Learning Resources

Document describing the methodological book adopted in the teaching of community medicine

Park's textbook of preventive and social medicine

Author: K Park

942Number of pages of the book:

Year of Printing: 1/Jan /2015

Country of Nature :23th edition, India(Madhya Pradesh).

Printing House: Banarsidas Bhanot Publishers

The body of the book and its suitability to the minds of students

:Hard cover and is perfect for medical students, there is

Detailed information on almost every topic but in brief which is the best thing about this book

It was chosen for students as a systematic course and includes all the main topics that students need

The Epidemiology, Screening for disease, Epidemiology of communicable diseases and chronic non-communicable diseases are usually focused on this book.

Auxiliary Books

Book Name	Authors	Edition
Leon Gordis	David Celentano, Moyses Szklo	6th edition
Control of Communicable Diseases	David L. Heymann	18th edition

Approved methodological books in the teaching of practical community medicine

1-clinical epidemiology practice and method

Edited by: Patrick Parfrey, Brendan J. Barrett

Second Edition

Publisher: Springer New York 2016

Page no: 533

2- leon Gordis

Sixth edition, printed in Canada

Published date:26/Nov/2018

Page No. 433

Imprint:Elsevier

Authors: David Celentano, Moyses Szklo

3- Epidemiological exercises

4- Practical guide lines for improving medical communication skills

First edition/2006

Printing and publication DAR IBN AL-ATHEER

Mosul university press. University of mosul

Author Dhafer B ALYouzbaki/ university of Mosul

10.Additional Information

Contact: huda.fadhil@uoninevah.edu.iq

Location: شعبة طب الاسرة والمجتمع/ فرع الطب الباطني

Medical ethics for 4th year medical students

1.General Information:

- **Subject**: Ethics
- **Code**: 226
- **Credit hours**:30 hours (~~1 hour per week)~~
- **Coarse Language**: Arabic.

2.Syllabus:

1**. Medical Ethical Foundations**

- Introduction to medical ethics
- Historical perspectives on medical ethics
- Core ethical principles: autonomy, beneficence, non-maleficence, and justice

2. The Ethical Relationship Between Doctor and Patient

- Building trust and maintaining confidentiality
- Informed consent
- Communication and empathy in patient interactions

3. Doctor's Relationship with Colleagues and Nursing Staff

- Interprofessional respect and teamwork
- Ethical dilemmas in professional relationships
- Conflict resolution in medical teams

4. The Doctors' Duties Towards Society

- Public health responsibilities
- Addressing health disparities
- Ethical issues in global health

5. Ethical Principles in the Practice of Surgery

- Preoperative and postoperative ethical considerations
- Surgical informed consent

- Managing surgical complications ethically

6. The Relationship Between the Surgeon and the Patient

- Trust and communication in surgical care
- Ethical decision-making in surgery
- Balancing risks and benefits in surgical procedures

7. Ethical Foundations in the Practice of Abortion, Infertility, and Contraception

- Ethical debates surrounding abortion
- Assisted reproductive technologies and ethical issues
- Contraceptive ethics and patient autonomy

8. Ethical Foundations of Pediatrics

- Informed consent in pediatric care
- Child welfare and best interest considerations
- Ethical issues in pediatric research

9. The Ethics of Psychiatry

- Confidentiality and informed consent in mental health care
- Ethical treatment of psychiatric patients
- Stigma and discrimination in psychiatry

10. Euthanasia

- Ethical arguments for and against euthanasia
- Legal perspectives on euthanasia
- Palliative care alternatives

11. Ethical Aspects of Organ Transplantation

- Donor and recipient ethics
- Allocation of scarce resources
- Consent and autonomy in organ donation

12. Molecular Biology and Genetic Engineering Technology

- Ethical implications of genetic research
- Human genome editing ethics
- Balancing innovation and ethical constraints

13. The Negative and Positive Aspects of Gene Therapy and Cloning

- Potential benefits and risks of gene therapy
- Ethical concerns with human cloning
- Regulatory and ethical frameworks

14. Doctor's Ethical Duties in Cases of Violence

- Identifying and reporting violence
- Providing care to victims of violence
- Ethical considerations in treating perpetrators

15. Ethical Foundations of Public Health and Community Medicine

- Population health ethics
- Resource allocation in public health
- Ethical issues in health promotion and disease prevention

16. The Ethics of Biomedical Research

- Principles of ethical research
- Informed consent in research
- Addressing conflicts of interest

17. Ethics of Dealing with Pharmaceutical Companies

- Ethical relationships with the pharmaceutical industry
- Managing conflicts of interest
- Transparency in drug promotion

18. The Unethical Promotion of Medicines

- Recognizing and addressing unethical practices
- Impact on patient care

- Regulatory and ethical standards

19. Medical Errors

- Understanding medical errors and their causes
- Reporting and addressing errors
- Promoting a culture of safety

20. The Types of Medical Errors

- Diagnostic errors
- Treatment errors
- Preventative errors and system failures

21. Ethics of Dealing with Plastic Surgery

- Informed consent and patient expectations
- Ethical considerations in elective procedures
- Managing postoperative outcomes

22. The General Controls and Conditions for Performing Plastic Surgery Operations

- Regulatory guidelines and ethical standards
- Patient selection criteria
- Safety and quality assurance

23. Ethics of Dealing with Cases of Treatment Refusal

- Respecting patient autonomy
- Ethical considerations in life-sustaining treatment refusal
- Balancing patient wishes with medical judgment

24. Professional Medical Behavior

- Professionalism in medical practice
- Ethical behavior and accountability
- Maintaining competence and integrity

25. Medical Secret

- Confidentiality and patient privacy
- Legal aspects of medical confidentiality
- Ethical dilemmas in maintaining secrets

26. Justifications for Disclosing Medical Secrets, Responsibility in Diagnosis

- Situations warranting disclosure
- Balancing confidentiality with public safety
- Ethical and legal implications of diagnostic errors

27. Responsibility in Treatment

- Ethical obligations in patient care
- Managing treatment failures
- Continuing care and follow-up

28. Doctor's Relationship with His Patients

- Building and maintaining therapeutic relationships
- Ethical issues in long-term care
- Handling patient complaints and grievances

29. Doctor's Relationship with His Fellow Doctors and Pharmacists

- Collaboration and communication
- Ethical issues in interdisciplinary care
- Addressing professional misconduct

30. Moral Aspects of Psychological and Mental Illnesses

- Ethical treatment of mental health conditions
- Addressing stigma and discrimination
- Patient rights in mental health care

31. Medical Report

- Importance of accurate medical documentation
- Ethical standards in report writing

- Legal implications of medical reports

32. Types of Medical Reports

- Clinical reports
- Incident reports
- Legal and forensic reports

33. The Death Certificate Report and Testimony in the Judiciary

- Legal requirements for death certification
- Ethical considerations in postmortem examinations
- Providing testimony in legal proceedings

34. Laws and Doctors

- Understanding medical law
- Legal responsibilities in medical practice
- Navigating legal issues in healthcare

35. Doctors Syndicate

- Role and functions of medical syndicates
- Professional support and advocacy
- Ethical and professional standards enforcemen

3.Learning objectives

Knowledge:

- Understand the fundamental principles of medical ethics, including key terms and major ethical issues in the medical field.
- Comprehend the significance of medical ethics in medical practice and its impact on patient care.
- Learn how to ethically and morally handle various medical conditions and situations.

Skills:

- Develop cognitive thinking skills by engaging students in discussions on ethical topics before formal lectures.

- Provide practical training starting from the late second professional year and continuing through the final professional year, focusing on handling ethical conflicts and dilemmas, enhancing communication skills, improving reaction time, and developing appropriate responses during crises.

Attitude:

- Foster ethical attitudes through methods such as field visits, participation as community workers, panel discussions, debates, and skit performances.
- Utilize portfolios during rotational internship postings to reflect on ethical experiences and professional growth

4.Outcomes of educational program

Knowledge :

1. Students will demonstrate a thorough understanding of the core principles and terminology of medical ethics.
2. Students will be able to analyze and articulate the role and importance of medical ethics in various medical practices.
3. Students will possess the knowledge to identify and evaluate ethical issues in different medical scenarios.

Skill :

1. Students will develop and apply advanced cognitive thinking skills to analyze ethical dilemmas critically.
2. Students will exhibit proficiency in handling real-life ethical conflicts and dilemmas through hands-on training and practical experiences.
3. Students will enhance their communication skills, enabling them to effectively discuss and resolve ethical issues with patients, families, and colleagues.
4. Students will demonstrate quick and appropriate decision-making abilities in crisis situations, maintaining ethical standards.

Attitude:

1. Students will exhibit a commitment to ethical practice in all aspects of their professional lives.

2. Students will demonstrate empathy, respect, and integrity in interactions with patients and colleagues.
3. Students will actively participate in community outreach and public health initiatives, showing a dedication to societal well-being.
4. Students will reflect on their ethical experiences and growth through portfolio use, continuously striving for personal and professional development in ethic

5.Course Overview

The course is composed of theoretical part only

Duration:

For the theoretical part:

Weekly Hours: one hour per week (first semester)

Weekly Hours: one hour per week (second semester)

Total: 30 hours per academic year

Location:

- Lecture Hall.

Format:

-Tutor-Centered

-Student-Centered: Motivating students to discuss and present parts of the lecture.

-Interactive Teaching

-Case-Based Learning

Assessment Methods

Types of Assessment

Formative Assessments: Quizzes

Summative Assessments: Midterm exams, final exams

Continuous Feedback: Provided throughout the course

Components of Assessment

➢Written Exams (40% mid year of total grade)

➢written exams 60% final year exam .

Detailed Breakdown

- **Theoretical Exams :**
  - Midterm Exam: 40% (Covers topics from the first half of the course).
  - Final Exam: 60% (covering the entire course content)

Pass/Fail Criteria

Pass Mark: 50%

Blueprints of medical ethics final exam, first trial.

Blueprint for medical ethics

Group No.: ..... **College/ Department:** college of medicine/Ninevah univ

Unit/ Course/ Subject: .....

									Cognitive Skill			Ass. Tool		Total no. of items
	Unit LOs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Remembering(direct questiond)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	1
1	Introducing The Science Of Ethics And The Sources Of Ethics	L	1	1	1	0.011905	1.1904762	1	1	0	0	1	_	5
2	Medical Ethical Foundations	L	2	2	4	0.047619	4.7619048	5	3	2	0	5	_	11
3	The Ethical Relationship Between Doctor And Patient	L	3	3	9	0.107143	10.714286	11	3	4	2	9	_	7
4	doctor duties His Colleagues, Nursing Staff	L	2	3	6	0.071429	7.1428571	7	4	3	0	7	_	13
5	The Doctors Duties Towards Society	L	3	3	9	0.107143	10.714286	11	4	5	2	11	_	5
6	Ethical Principles In The Practice Of Surgery	L	3	3	9	0.107143	10.714286	11	2	1	1	4	_	7
7	Ethical Foundations Of Pediatrics	L	2	3	6	0.071429	7.1428571	7	1	2	2	5	_	6
8	Ethical Foundations Of Public Health And Community Medicine	L	2	2	4	0.047619	4.7619048	5	2	2	1	5	_	6
9	Medical Errors	L	2	2	4	0.047619	4.7619048	5	1	1	2	4	_	2
10	Medical Secret	L	1	1	1	0.011905	1.1904762	1	2	0	0	2	_	3
11	Responsibility In Treatment	L	1	2	2	0.02381	2.3809524	2	1	0	1	2	_	1
12	Doctor's Relationship With His Fellow Doctors And Pharmacists	L	1	1	1	0.011905	1.1904762	4	1	2	1		_	11
13	Medical Report	L	3	3	9	0.107143	10.714286	11	2	7	1	10	_	1
14	laws and doctors	L	2	1	2	0.02381	2.3809524	2	1	0	0	1	_	2
15	Doctors Syndicate	L	1	1	1	0.011905	1.1904762	1	1	1	0	2	_	2

6.Instructional of the course lectures

Topic	Teaching Faculty	No. Of lectures	Instructional objects
Introducing The Science Of Ethics And The Sources Of Ethics	Dr.Mustafa Nooruldeen	1	Define medical ethics Define development of the moral obligation towards the medical profession Define Hippocratic Oath
Medical Ethical Foundations	Dr.Mustafa Nooruldeen	1	identify medical ethical foundations Describe ethical principles
The Ethical Relationship Between Doctor And Patient And His Colleagues, Nursing Staff And The Doctors Duties Towards Society	Dr.Mustafa Nooruldeen	2	To identify the ethical relationship between doctor and patient And his colleagues To define the relationship with the nursing staff The doctors duties towards society
Ethical Principles In The Practice Of Surgery. The Relationship Between The Surgeon And The Patient And The Ethical Foundations In The Practice Of Abortion , Infertility And Contraceptive	Dr.Mustafa Nooruldeen	2 1	To distinguish ethical principles in the practice of surgery To understand the relationship between the surgeon and the patient To know the ethical foundations in the practice of abortion , infertility and contraceptive
Ethical Foundations Of Pediatrics And The Ethics Of Psychiatry	Dr.Mustafa Nooruldeen	2	To explain the ethical foundations of pediatrics To know the ethics of psychiatry

Euthanasia And The Ethical Aspect Of Organ Transplantation	Dr.Mustafa Nooruldeen	1	To distinguish between euthanasia To explain the ethical aspect of organ transplantation
Molecular Biology And Genetic Engineering Technology , The Negative And Positive Aspects Of Gene Therapy And Cloning And The Doctor's Ethical Duties In Cases Of Violence	Dr.Mustafa Nooruldeen	2	To explain molecular biology and genetic engineering technology To differentiate the negative and positive aspects of gene therapy and cloning To explain the doctor's ethical duties in cases of violence
Ethical Foundations Of Public Health And Community Medicine And The Ethics Of Biomedical Research	Dr.Mustafa Nooruldeen	1	To distinguish the ethical foundations of public health and community medicine To explain the ethics of biomedical research
Ethics Of Dealing With Pharmaceutical Companies And The Unethical Promotion Of Medicines	Dr.Mustafa Nooruldeen	1	To understand the ethics of dealing with pharmaceutical companies Distinguish the unethical promotion of medicines
Medical Errors And The Types Of Medical Errors	Dr.Mustafa Nooruldeen	1	To know about medical errors Enumerate the types of medical errors
Ethics Of Dealing With Plastic Surgery And The General Controls And Conditions For Performing Plastic Surgery	Dr.Mustafa Nooruldeen	2	To explain the ethics of dealing with plastic surgery To distinguish the general controls and conditions for performing plastic

Operations			surgery operations
Ethics Of Dealing With Cases Of Treatment Refusal	Dr.Mustafa Nooruldeen	1	To explain the ethics of dealing with cases of treatment refusal
Professional Medical Behavior	Dr.Mustafa Nooruldeen	1	To know professional medical behavior
Medical Secret Justifications For Disclosing Medical Secrets, Responsibility In Diagnosis	Dr.Mustafa Nooruldeen	2	To know the medical secret To enumerate the justifications for disclosing medical secrets
Responsibility In Treatment	Dr.Mustafa Nooruldeen	2	To explain the responsibility in diagnosis To explain responsibility in treatment
Doctor's Relationship With His Patients	Dr.Mustafa Nooruldeen	1	To characterize the doctor's relationship with his patients
Doctor's Relationship With His Fellow Doctors And Pharmacists	Dr.Mustafa Nooruldeen	1	To understand the doctor's relationship with his fellow doctors and pharmacists
Moral Aspects Of Psychological And Mental Illnesses	Dr.Mustafa Nooruldeen	1	To explain the moral aspects of psychological and mental illnesses
Medical Report , Types Of Medical Reports , The Death Certificate Report And The Testimony In The Judiciary	Dr.Mustafa Nooruldeen	2	To explain the medical report Enumerate the types of medical reports To explain the death certificate report To explain the testimony in the

			judiciary
laws and doctors Doctors Syndicate	Dr.Mustafa Nooruldeen	2	To understand the laws and doctors To get to know the Doctors Syndicate and regulations

7.Instructional objectives of clinical sessions

Not applicable.

8.Table of the courses:

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ -٣,٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	طب مجتمع ١		طب مجتمع عملي١	باطنية ٢		طب مجتمع ٢	طب مجتمع عملي٢
						باطنية ١	
الاربعاء	جراحة بولية ١	سلوكية ١		طب مجتمع ١		طب عدلي ١	اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢		باطنية ٢	
الخميس	جراحة ١		باطنية ١			توليد ١	اخلاقيات الطب ٢
	توليد ٢		جراحة ٢			طب عدلي ٢	

يكون الدوام في القاعات الدراسية كالاتي :

يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .

يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر

يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

تعلن

9.Learning Resources

- World Health Organization, Sixty-third World Health Assembly, Agenda item 11-21 2010
- Fifty-seventh World Health Assembly. 2004 7
- German controls for the process of ants and the transplantation of human organs between neighborhoods, College of Law - Ain University
- Shams researcher / Mahmoud Thabet Mahmoud Ala Al-Shazly. Journal of Middle East Research Issue 44
- The Kuwait Theme on the Islamic Constitution of the Medical Profession issued by the First World Conference on Islamic Medicine
- Baptized in Kuwait in the period 12-16/12/1981
- Illnesses of Medicine A/D: Jamal Salih Jareh

10.Additional information

Contact:

Dr. Dr.Mustafa Nooruldeen

Mustafa.Nooruldeen@uoninevah.edu.iq

Location: Medical Physiology Department

Obstetric for the fourth year

1. General Information:

- **Subject**: obstetrics
- **Code**: (4 27)
- **Credit Hours :** 7 units.(60 theoretical + 80 clinical hours)
- **Coarse Language**: English..

2. Syllabus:

A. Basic science in obstetrics

1. Female reproductive anatomy

2. Anatomy of female pelvis and fetal skull

3 . Review of physiology of female reproductive function

4 . Fertilization, implantation and early development of embryo

5 . Placenta, functions and abnormalities

6 . Fetal circulation, anatomical and physiological changes

B. Normal pregnancy anatomical and physiological changes

C. Antenatal care

1. Clinical features of pregnancy, diagnosis and differential diagnosis
2. Preconception counseling and antenatal care
3. Drug use in pregnancy and teratology
4. Morning sickness and hyperemesis gravidarum
5. Anaemia in pregnancy

D. First trimester bleeding

1. Miscarriage
2. Hydatidiform Mole
3. Ectopic pregnancy

E. Labour

1. Normal labour, stages and mechanism
2. Management of normal labour
3. Abnormal labour
4. Obstructed labour
5. Malposition, occipitoposterior position
6. Malpresentation, face, brow presentation
7. Breech presentation
8. Transverse lie, unstable, cord prolapsed
9. Induction of labour

F. Fetal monitoring

Fetal monitoring during labour and antenatal period

Prenatal diagnosis

G. The puerperium

Puerperal disorders and puerperal pyrexia

H. The newborn, examination and resuscitation

I. Antepartum hemorrhage

J. Medical and surgical diseases in pregnancy

1. Hypertensive disorders in pregnancy
2. Heart disease with pregnancy
3. Diabetes with pregnancy
4. Endocrine diseases with pregnancy
5. Immunological and other medical disorders
6. Coagulation disorders
7. Urinary tract disorders with pregnancy
8. Surgical disorders with pregnancy

K. Obstetric complication

1. Placental insufficiency and IUGR
2. Preterm labour
3. PROM
4. Prolonged pregnancy
5. Intrauterine death
6. Polyhydramnios and oligohydramnios
7. RH incompatibility
8. Multiple pregnancy

L. Women health in conflict

1. Obstetric injuries
2. Obstetric shock
3. Postpartum hemorrhage

M. Obstetric procedures

N. Obstetric analgesia and anesthesia

O. Vital statistics

3. Learning Objective:

Knowledge:

- **Basic Science:** the student able to understand the maternal and fetal anatomy relevant to labour and delivery, the normal pathway that leads to normal reproduction, the anatomical landmarks used in obstetric procedures and to know the normal physiological changes of the pregnancy.
- **Normal pregnancy:** the student know how to diagnose this common condition and to avoid the faults of the diagnosis that leads to social problems and to differentiate normal pregnancy symptoms from potential underlying pathology to understand the principles of routine antenatal care.
- **Early Pregnancy Problems:** the student understand why a high suspicion of pregnancy is needed in all women of reproductive age with symptoms, obtain an awareness of less common early pregnancy conditions, including recurrent miscarriage and gestational trophoblastic disease to learn how to do active management of life-threatening bleeding and know the causes and treat the avoidable causes.

- **Antenatal obstetric complication:** the student to be able to provide a differential diagnosis for abdominal pain in pregnancy and a management plan, understand the risk factors, presentation and management of them.
- **Medical complications of pregnancy:** the student understand the importance of medical conditions in pregnancy in relation to maternal and infant health, the impact of common medical conditions such as hypertension , kidney disease, cardiac disease and diabetes on pregnancy and to understand the pathophysiology of pre-eclampsia and understand the principles of management.
- **Multiple pregnancy:** the student able to classify of multiple pregnancies, understand risk factors for multiple pregnancies and why prevalence is increasing.
- **Preterm labor:** the student able to understand the extent of the problem, its causes and consequences.
- **Labor, normal and abnormal labor:** the student understand the physiological principles of labour and delivery, the contributors to normal labour and its management and able to diagnose abnormal labour and its management. To understand the causes and management of malpresentation in late pregnancy and to diagnose the abnormal presentation and position.
- **Operative delivery:** the student able to manage of perineal tears and episiotomy. To understand the indications, contraindications, procedures and complications of instrumental delivery with ventouse or forceps and to understand the indications, procedure, complications and consequences of caesarean section.
- **The puerperium:** the student understands the physiological changes that occur in the normal puerperium and the common disorders of the puerperium and how to manage them**.**

Skills:

- **Clinical Examination**: Students will perform comprehensive obstetrical physical examinations, including fetal heart monitoring by (pinard fetal stethoscope or by sonicaid).

- **Communication**: Students will demonstrate effective communication skills with the pregnant patient and their relatives.

- **Procedures**: Students will competently perform basic obstetrical examinations such as fundal height, fundal grips and paolic maneuver in addition to fetal heart rate monitoring and uterine contraction calculation under supervision.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with pregnant patients.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of pregnant patients.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of the physiology of pregnancy on mother body and the diseases occur during pregnancy, how to follow them and prevent and manage it.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in pregnant woman care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of obstetric assessments and interventions.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of obstetrical conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in pregnant women care, prioritizing the well-being and rights of human.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in obstetric.

5. Course Overview

- The course is composed of two parts as follow:

1. *Theoretical Part. 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: Two hours per week (first semester)
  - Weekly Hours: Two hours per week (second semester)
  - Total: 54 hours per academic year

  For the practical part:

- Weekly Hours: Eight hours per week (each group)
- Total: 70 hours per academic year.

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: AL- Salam , AL-Batool teaching hospitals and Skill lab.

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

- *For the practical part.*
  - Clinical Rotations
  - Bedside Teaching
  - Case-Based Learning (CBL)
  - Problem-Based Learning (PBL)
  - Simulation Training
  - Skills Labs
  - Lectures and Seminars
  - Ward Rounds
  - Clinical Tutorials
  - Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-*Components of Assessment:*

- Written Exams: 80 marks (20 marks for mid-year exam and 60 marks for final exam)
- Objective Structured Clinical Examination (OSCE) (20 marks)
- Clinical Performance and tasks paper (extra 2 marks)

-*Detailed Breakdown*

- **Written Exams (40%)**:
  - Midterm Exam: 20 marks and it includes 40 multiple-choice questions (MCQs), 2 short answer questions (SAQs), and 2 case-based questions).
  - End term Exam: 60 marks and it includes 80 (Comprehensive exam covering the entire course content, includes MCQs)
- **Objective Structured Clinical Examination (OSCE) (20 marks)**:
  - Stations: Typically includes station assessing different clinical skills (e.g., history taking, physical examination, communication, and procedural skills).
- **Clinical Performance and tasks paper (2 marks)**:
  - Clinical Performance: 1mark (Assessed by supervisors during clinical rotations based on direct observation, clinical skills, professional behavior, and participation)
  - Tasks paper: 1mark (Students maintain a documenting clinical cases, procedures performed, and reflective entries. The paper is reviewed and scored by faculty based on completeness, accuracy, and depth of reflection)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment:** Assignments, quizzes, presentations, peer evaluations.

Blue print/ Final Exam / first trial

Blueprint for Obestetrics

Group No.: .....3..... College/ Department: college of

Unit/ Course/ Subject: .....written assessment exam for sexth stage(round2).

	Unit LOs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*10	No. of test items on each SLO	Patho-physiology	Clinical findings/ Exam	Inv
1	clinical reproductive anatomy		1	1	1	0.00884956	0.88495575	1			
2	reproductive physiology		1	1	1	0.00884956	0.88495575	1			
3	Anatomical & physiological changes during pregnancy		1	1	1	0.00884956	0.88495575	1			
4	Fertilization and implantation		1	1	1	0.00884956	0.88495575	1			
5	Diagnosis of pregnancy		1	1	1	0.00884956	0.88495575	1			
6	Pre-conception Counseling		1	2	2	0.01769912	1.7699115	2			
7	Antenatal care		1	2	2	0.01769912	1.7699115	1			
8	teratology		2	2	4	0.03539823	3.53982301	3			
9	nausea and vomiting		1	2	2	0.01769912	1.7699115	2			
10	Spontaneous Miscarriage		1	2	2	0.01769912	1.7699115	2			
11	Recurrent Miscarriage		1	1	1	0.00884956	0.88495575	1			
12	Gestational Trophoblastic Tumours		1	1	1	0.00884956	0.88495575	1			
13	ectopic pregnancy		1	2	2	0.01769912	1.7699115	2			
14	Urinary tract infection		2	2	4	0.03539823	3.53982301	3			
15	induction of labor		2	2	4	0.03539823	3.53982301	3			
16	Venous thromboembolism		2	2	4	0.03539823	3.53982301	3			
17	Oligohydramnios and Polyhydramnios		2	2	4	0.03539823	3.53982301	3			
18	Fetal growth restriction		1	2	2	0.01769912	1.7699115	2			
19	Post-term pregnancy		1	2	2	0.01769912	1.7699115	2			
20	Vaginal bleeding in pregnancy(APH)		1	2	2	0.01769912	1.7699115	2			
21	Rhesus iso immunization		2	2	4	0.03539823	3.53982301	3			
22	intrauterine death		2	2	4	0.03539823	3.53982301	3			
23	PROM &PPROM		2	2	4	0.03539823	3.53982301	3			
24	surgical diseases		1	2	2	0.01769912	1.7699115	2			
25	Diabetes mellitus		1	1	1	0.00884956	0.88495575	1			
26	Other endocrinology disorders		2	1	2	0.01769912	1.7699115	3			
27	Heart disease		1	2	2	0.01769912	1.7699115	2			
28	Hypertensive disorders		1	1	1	0.00884956	0.88495575	1			
29	Respiratory disease		1	1	1	0.00884956	0.88495575	1			
30	Haematological abnormalities		2	2	4	0.03539823	3.53982301	4			
31	Immunological diseases		2	2	4	0.03539823	3.53982301	3			
32	multiple pregnancy		1	1	1	0.00884956	0.88495575	1			
33	preterm labor		2	2	4	0.03539823	3.53982301	4			
34	Physiology and stages of labor		1	1	1	0.00884956	0.88495575	1			
35	Diagnosis of labor		1	1	1	0.00884956	0.88495575	1			
36	Management of normal labor		1	2	2	0.01769912	1.7699115	1			
37	Prolonged labor		1	1	1	0.00884956	0.88495575	1			
38	Malposition of the occiput		2	2	4	0.03539823	3.53982301	3			
39	Breech presentation		1	1	1	0.00884956	0.88495575	1			
40	Face presentation		1	1	1	0.00884956	0.88495575	1			
41	Transverse&unstable lie		1	1	1	0.00884956	0.88495575	1			
42	Cord prolapse		1	1	1	0.00884956	0.88495575	1			
43	Postpartum hemorrhage		1	1	1	0.00884956	0.88495575	1			
44	Obstetric anesthesia and analgesia		2	3	6	0.05309735	5.30973451	4			
45	operative delivery		1	2	2	0.01769912	1.7699115	3			
46	normal puerperium		2	1	2	0.01769912	1.7699115	2			
47	Puerperal pyrexia		2	2	4	0.03539823	3.53982301	4			
48	neonatal resuscitation		1	2	2	0.01769912	1.7699115	2			
	obstetric injuries		2	2	4	0.03539823	3.53982301	3			
49	vital statistics		1	2	2	0.01769912	1.7699115	2			
	total		67	80	113	1	100	100	0	0	

6. Instructional Objective of the lectures:

Lecture title	No. Of lectures	Faculty member	Instructional objective
Basic signs in obstetric	5	Dr. Shayma Dr. Mays	- To understand the maternal and fetal anatomy relevant to labour and delivery. - To understand the normal pathway that leads to normal reproduction.
Normal pregnancy and physiological changes	6	Dr. mays Dr. Dhukaa Dr. Tahani	- To learn how to diagnose this common condition and to avoid the faults of the diagnosis that leads to social problems - To differentiate normal pregnancy symptoms from potential underlying pathology. - To understand the principles of routine

			antenatal care.
First trimester bleeding	4	Dr. Mays Dr. Tahani	- Understand the social and emotional context of early pregnancy loss - Understand why a high suspicion of pregnancy is needed in all women of reproductive age with symptoms. - Obtain an awareness of less common early pregnancy conditions, including recurrent miscarriage and gestational trophoblastic disease
Labour	11	Dr. Shayma Dr. Dhukaa Dr. Tahani	- To understand the physiological principles of labour and delivery. - To understand the contributors to normal labour and its management. - To understand the contributors to abnormal labour and its management.
Puerpurium	5	Dr. Dhukaa Dr. Tahani	- To understand the physiological changes that occur in the normal puerperium. - To understand the common disorders of the puerperium and how to manage them. - To understand the process of breastfeeding and common disorders associated with it.
Obestatrical complications	6	Dr. Tahani	- To appreciate the causes and management of minor complications of pregnancy. - To be able to provide a differential diagnosis for abdominal pain in pregnancy and a management plan. - To understand the risk factors, presentation and management of venous thromboembolic disease in pregnancy.
Medical and surgical		Dr. Dhukaa	- Understand the importance of medical conditions in pregnancy in

	diseases in pregnancy	6	Dr. Mays	relation to maternal and infant health. - Appreciate the importance of preconceptual counseling - Understand the impact of common medical conditions such as hypertension, kidney disease, cardiac disease and diabetes on pregnancy.
	Women health in conflict	3	Dr. Dhukaa	- To introduce the concept of risk management relation to operative delivery.
	Obstatrical procedure	3	Dr. Shayma	- To understand the appropriate management of perineal tears. - To understand the appropriate management of episiotomy
	Neonatology	4	Dr. Tahani	- To understand and be able to describe the unique features of newborn babies and the transition to extrauterine life. - For common neonatal problems be able to describe the key features from an obstetric point of view.
	Statistics	1	Dr. Dhukaa	- To have an idea about the population growth and the birth rate - To know the factors affecting the improvement of maternal mortality Perinatal mortality rate

7. Instructional objectives of the clinical sessions:

	Session Objective	No. Of sessions	Teaching faculty	Instructional Objectives
	1. Obstetrics Training Objectives	4	Dr. Dhukaa Dr. Tahani	• **Week 1 and 2: Introduction to Obstetrics and Primary Health Care**

		4	Dr. Dalya Dr. Yusra Dr. Shaymaa Dr. Heba Dr. Shahad Dr. Aseel Dr. Zahraa Dr. Shaymaa	○ Understand the organization and function of labor and delivery wards and antenatal clinics. ○ Conduct basic obstetric history taking and examinations. ○ Identify and use common obstetric instruments. • **Week 3 and 4: Antenatal Care and Common Obstetric Conditions** ○ Manage antenatal care, including routine check-ups and education. ○ Recognize and manage common antenatal conditions like hypertensive disorders and gestational diabetes. ○ Observe and understand cesarean sections. • **Week 5 and 6: Intrapartum Care** ○ Monitor and manage labor using tools like the labour care Guide. ○ Assist in normal and instrumental deliveries. ○ Understand the stages of labor and management of normal and abnormal labor. • **Week 7 and 8: Postpartum Care and Complications** ○ Conduct postpartum check-ups and provide breastfeeding

		3 3 2	Dr. Dhukaa Dr. Yusra Dr. Heba Dr. Dalya Dr. Tahani Dr. Yusra Dr. Heba Dr. Shaymaa	support. ○ Manage common postpartum complications like hemorrhage and infections. ○ Understand the basics of newborn care. • **Week 9: Obstetric Emergencies** ○ Recognize and manage obstetric emergencies such as eclampsia and shoulder dystocia. ○ Observe and participate in emergency procedures. ○ Understand rapid response and emergency management principles.
				• **Week 10:**

				End Course exam

8. Tables of the Course

جدول الدوام الأسبوعي لفرع النسائية والتوليد

المرحلة	الأحد ٢/١٨	الاثنين ٢/١٩	الثلاثاء ٢/٢٠	الأربعاء ٢/٢١	الخميس ٢/٢٢
الرابعة	كروب 1و2 مختبر المهارات م. د. ميس رافع كروب 3 رهدات م. السلام م. د. تهاني علي كروب 4 رهدات م. السلام أ.م. د. ثناء عباس كروب 5 رهدات م. السلام أ.م. د. يسرى طاهر كروب 6 رهدات م. البتول د. شهد شهاب				محاضرتان نظري في القاعات المحددة من قبل التسجيل م. د. شيماء حازم م. د. ميس رافع
الخامسة			محاضرتان نظري في قاعة الدكتور طاهر الدباغ م. د. هبة نوري	كروب 1 استشارية م. البتول د. شهد شهاب كروب 2 استشارية م. السلام م. د. هبة نوري	كروب 1 استشارية م. السلام أ.م. د. يسرى طاهر كروب 2 استشارية م. البتول د. اسيل سالم
السادسة	تيتوريال في قاعة الفرع م. د. داليا مظفر	عمليات م. السلام م. د. شيماء حازم	رهدات م. السلام د. فاطمة وليد	رهدات م. السلام م. د. تهاني علي	مركز صحي حي العربي د. اسلام

ملاحظة: يبدا الدوام الساعة الثامنة والنصف صباحاً إلى الساعة الحادية عشرة ثم يستأنف الساعة الحادية عشرة والنصف (بعد استراحة لنصف ساعة) إلى الساعة الثانية ظهراً، دوام الاستشارية يكون مستمراً من الساعة الثامنة والنصف صباحاً وذلك نظراً لطبيعة الدوام في الاستشارية.

9. Learning Resources

- Ten teachers textbook for obstetric (last edition).
- MRCOG guidelines.
- NICE guidelines.

10.Additional Information

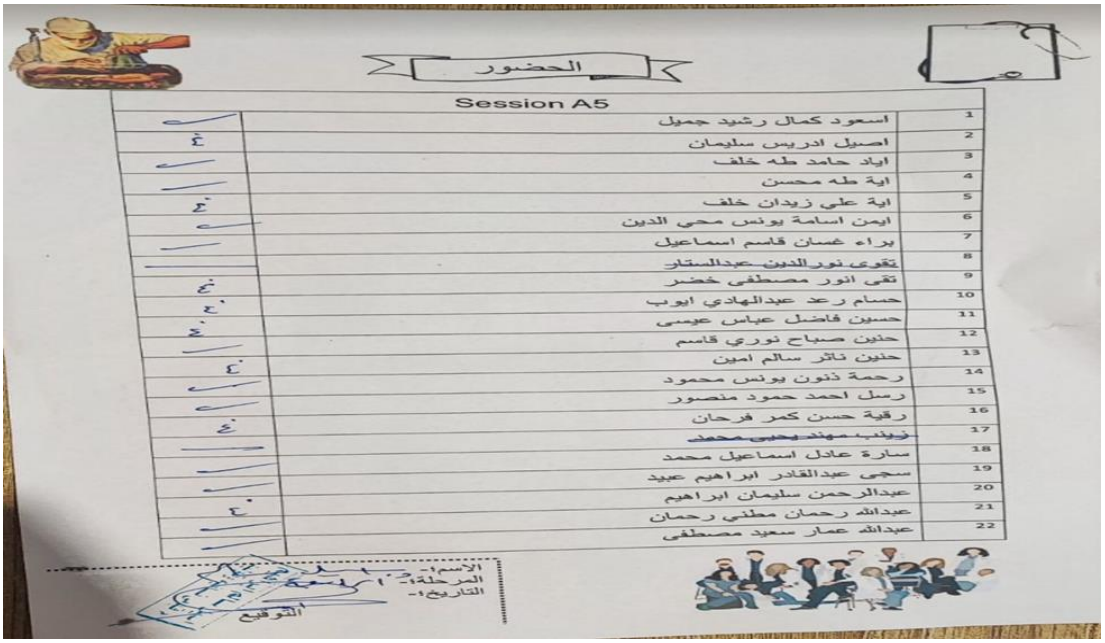
Contact: dalya.abdulrahman@uoninevah.edu.iq , Mobile: 07740854868 رئيسة الفرع

Heba.saeed@uoninevah.edu.iq , Mobile: 07741858008 مقررة الفرع

Location: فرع النسائية والتوليد

11. Appendix

نموذج لورقة حضور الطلاب في التدريب العملي

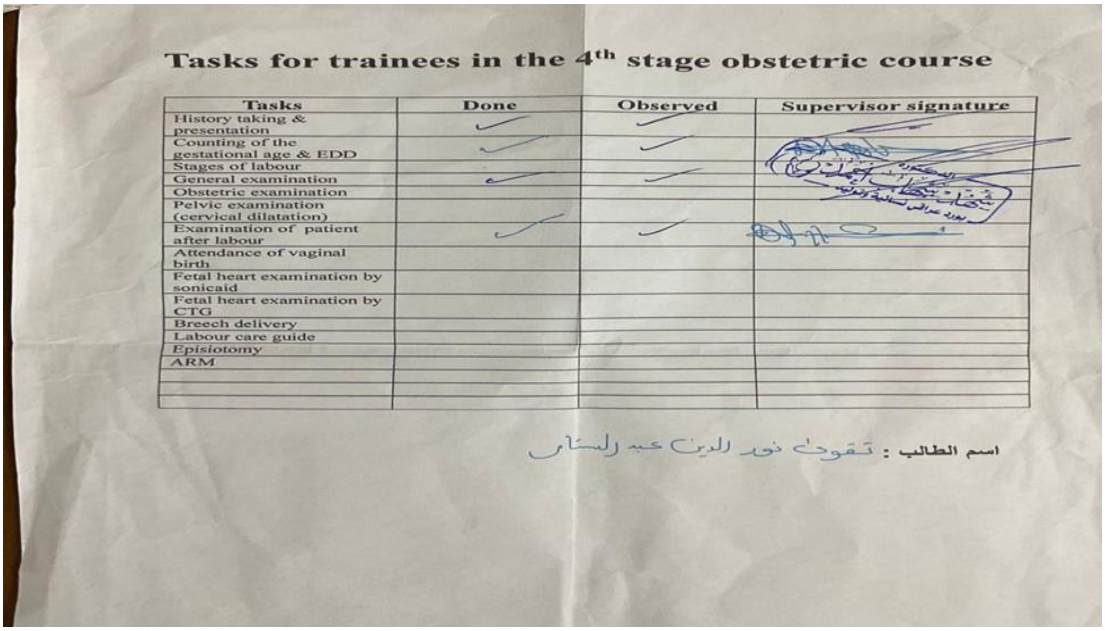


الحضور

Session A5

1	اسعود كمال رشيد جميل
2	اصيل ادريس سليمان
3	اياد حامد طه خلف
4	اية طه محسن
5	اية علي زيدان خلف
6	ايمن اسامة يونس محي الدين
7	براء غسان قاسم اسماعيل
8	تقوى نورالدين عبدالستار
9	تقى انور مصطفى خضر
10	حسام رعد عبدالهادي ايوب
11	حسين فاضل عباس عيسى
12	حنين صباح نوري قاسم
13	حنين ناثر سالم امين
14	رحمة ذنون يونس محمود
15	رسل احمد حمود منصور
16	رقية حسن كمر فرحان
17	زينب مهند يحيى محمد
18	سارة عادل اسماعيل محمد
19	سجى عبدالقادر ابراهيم عبيد
20	عبدالرحمن سليمان ابراهيم
21	عبدالله رحمان مطني رحمان
22	عبدالله عمار سعيد مصطفى

الاسم:
المرحلة:
التاريخ:-
التوقيع



Tasks for trainees in the 4th stage obstetric course

Tasks	Done	Observed	Supervisor signature
History taking & presentation	✓	✓	
Counting of the gestational age & EDD	✓	✓	
Stages of labour			
General examination	✓	✓	
Obstetric examination			
Pelvic examination (cervical dilatation)			
Examination of patient after labour	✓	✓	
Attendance of vaginal birth			
Fetal heart examination by sonicaid			
Fetal heart examination by CTG			
Breech delivery			
Labour care guide			
Episiotomy			
ARM			

اسم الطالب : تقوى نور الدين عبد الستار

نموذج لورقة المهام المطلوبة من طلاب المرحلة الرابعة

Behavioral sciences(psychology)for fourth year

1.General Information:

- **Subject**: Behavioral sciences (psychology)
- **Code**: (428).
- **Credit hours**: 2 units(30 theoretical hours).
- **Course Language** English

2.Syllabus:

- **Introduction to psychology**
  - **Introduction and definition**
  - **Goals of psychology**
  - **Psychology's methods**
  - **Schools of psychology**
  - **Major fields of psychology**
  - **Normal versus abnormal**
  - **Classification of abnormal behavior**
- **EMOTION**
  - **General characteristic of emotion**
  - **Functions of the emotions**
  - **Compositions of the emotion**
  - **Indicators of emotion**
  - **Types of emotions**
  - **Basic types of emotion**
  - **Expression of emotion**
  - **Theories of emotion**
- **Intelligence**
  - **Some important facts about Intelligence**
  - **The Intelligence quotient**
  - **MA))** **Mental age**
  - **The normal distribution**
  - **Extremes of Intelligence**
  - **Mental retardation**
  - **Theories of intelligence**
  - **Intelligence tests**
  - **Samples of IQ tests**

- **Learning**
  - **Introduction and definition**

- Learning and maturation
- Types of learning:
- classical conditioning .
- Operant conditioning.
- Cognitive learning.
- Application of learning principles in psychotherapy

- Life cycle and development
  - Introduction and definition
  - Aspects of development:
  - biological (physical) development
  - emotional development
  - cognitive development
  - Stages of development:
  - - Pre-natal, infancy, early childhood, middle and late childhood, adolescence: - early adulthood:, middle adulthood, late adulthood
- MEMORY
  - Introduction and definition
  - Steps of memory process
  - Encoding; Storage; Retrieval
  - Types of memory
  - -Sensory memory
  - Short –term memory
  - Long –term memory
  - Kinds of remembering
  - Improving memory
  - Types of forgetting
- Motivation
  - Introduction and definition
  - The motivation cycle
  - Assessment of motivation
  - Relationship of motivation to performance
  - General terms in motivation:
  - Instinct; Need; Drive
  - Theories of motivation

- SENSATION AND PERCEPTION
  - The difference between Sensation and Perception:
  - Sensation
  - Introduction and definition
  - Sensory processes
  - Absolute Threshold
  - Difference threshold

- **Weber's Law**
- **Signal –Detection Theory**
- **Sensory adoption**

- **PERCEPTION**
  - **Introduction and definition**
  - **Perceptual processes**
  - **Attention**
  - **Types of attention**
  - **Factors influence perception:**
  - **External Cues**
  - **Internal Cues**
  - **Perceiving Distance**
  - **Binocular Cues**
  - **Monocular Cues**
  - **Perceptional Constancy**
  - **Unusual perceptual experiences**
  - **Extrasensory perception**
  - **Extremes of sensory load**
- **Personality and its development**
  - **Introduction and definition**
  - **Elements of personality**
  - **Personality characteristics subject to appraisal:**
  - **What are the conditions causes break down of Personality**
  - **General factors influencing Personality**
  - **Environmental experiences:**
  - **Hereditary effects**
  - **Personality theories**
  - **Ego defense mechanisms**
  - **Stages of personality development**
  - **Personality Testes**
  - **Types Of Personality**

- **Abnormal psychology**
  - **Abnormal behavior**
  - **Defining abnormality**
  - **What is normality**
  - **Classifying abnormal behavior**
  - **Sleep**
  - **Introduction and definition**
  - **Stages of sleep (sleep cycle)**
  - **How we transition through the stages**
  - **Functions of sleep**
  - **Dream**
  - **What is Insomnia?**

- **What causes Insomnia?**
- **Sleeping better**

- **Stress and coping mechanisms**
  - **Introduction and definition**
  - **Effects of stress**
  - **Acute stress reaction**
  - **Conflict and frustration**
  - **The General Adaptation Syndrome**
  - **Types of stressors**
  - **Coping with stress**

- **Thanatology**
  - **Introduction and definition**
  - **Goals of studying Thanatology**
  - **Reaction of death**
  - **Adaptation to death**
- **THINKING**
  - **Introduction and definition**
  - **Units of thinking: images ,symbols ,concepts , rules**
  - **Kinds of thinking**
  - **Representations of thinking**
  - **Problems –solving**
  - **Types of problems**
  - **The steps of problems –solving**
  - **Variables affecting problem-solving**
  - **Reasoning**
  - **Can we learn to be good thinkers**

- **Dynamic determine of behavior**
  - **Introduction**
  - **Psychoanalytic perceptive**
  - **Jung' theory**
  - **Type and trait perceptive**
  - **Humanistic perceptive**
  - **Social –cognitive perceptive**
  - **Assessing behavior in situations**
- **Aggression**
  - **Introduction and definition**

- **Types of aggression**
- **Biology of aggression**
- **Genetics and aggression**
- **Aggression and culture**

- **Sexual abuse**
  - ***Introduction and definition***
  - ***Types of Sexual abuse***
  - ***Some facts of sexual abuse***
  - ***Immediate effects of sexual abuse***
  - ***Long-term effects of sexual abuse***
  - ***factors influence the effects of sexual abuse on the victim.***
- ***Psychological tests***
  - ***Standardization***
  - ***Reliability***
  - ***Validity***
  - ***Testing concerns***
  - ***General testing consideration***
  - ***Uses of psychological tests***
  - ***Types of psychological tests:***
- ***Psychotherapy***
  - ***functions of Psychotherapy***
  - ***The goals of Psychotherapy:***
  - ***Kinds of psychotherapy:***
  - ***Psychoanalysis***
  - ***Humanistic***
  - ***Gestalt***
  - ***reality***
  - ***religious***
  - ***Rational –emotive therapy***
  - ***behavior therapy(behavior modification)***

3.Learning Objective:

Knowledge:

- Define psychology and its goals, understanding various methods, schools, and major fields.

- Learn the characteristics, functions, and types of emotions, as well as various theories of emotion.
- Understand key concepts about intelligence, including the intelligence quotient (IQ), mental age, and theories of intelligence.

Skills:

- Differentiate between normal and abnormal behavior and classify abnormal behaviors.
- Assess and interpret emotional expressions and apply theories of emotion to real-life situations.
- Analyze IQ test results and apply intelligence theories in educational and psychological contexts.

Attitude:

- Develop an appreciation for the complexity and diversity of human behavior.
- Foster empathy towards others' emotional states and understand the importance of emotional regulation.
- Value the diversity of intelligence and promote the ethical use of intelligence assessments.

4. Outcomes for Educational Program

Knowledge:

- Ability to analyze psychological concepts and apply them to real-world situations.
- Understanding of the steps of memory processes and the ability to employ strategies to improve memory.
- Knowledge of motivational factors and how to apply motivational theories to enhance performance.

Skills:

- Evaluate different psychological methods and schools, and design experiments to test learning principles.
- Assess personality using various tests and analyze factors influencing personality development.

- Apply knowledge of sensation and perception to practical scenarios and analyze sensory and perceptual information.

Attitude:

- Develop a holistic understanding and appreciation of human behavior and developmental stages.
- Promote practices that enhance memory and cognitive health, and recognize the impact of stress on well-being.
- Foster a reflective and analytical mindset, encouraging lifelong learning and cognitive growth.

5.Course Overview

- **Course composition:**

The course is delivered via theoretical modality on two semesters, teaching includes educational lectures, discussion

- **Duration**:

The theoretical teaching is extended on both the first and second academic year semesters, divided as following:

- Weekly Hours: one hour (first semester)
- Weekly Hours: one hour per week (second semester)
- Total: 30 hours per academic year

- **Location**:

- The theoretical teaching conducted at lecture hall.

- -**Format**:

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes and in-lecture assessment activities.
- **Summative Assessments**: Midterm exams, end term exams
- **Continuous Feedback**: Provided throughout the course

-*Components of Assessment:*

- Written Exams 90% of total grade)
- Research Project and Presentation (10% of total grade)

-*Detailed Breakdown*

- **Written Exams =90%)**:
  - Midterm Exam: 30% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
  - End term Exam:60% (Comprehensive exam covering the entire course content, includes MCQs, and case-based questions)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment :**is achieved via Assignments, quizzes, presentations, peer evaluations.
- **blue print for final exam 2023-2024 (First Trial) :**

MCQ= Total 80 MCQ

Subject	Remembering questions	Understanding Questions	Problem solving	Total per subject
Introduction to psychology	3	2	0	5
EMOTION	**1**	1	1	**3**
Intelligence	3	2	1	6
Learning	2	3	**0**	5
Life cycle and development	4	4	1	9
MEMORY	**1**	2	3	6
Motivation	**1**	2	**0**	3
SENSATION AND PERCEPTION	**3**	**3**	**1**	**7**
Personality and its development	2	3	4	**9**
Abnormal psychology	1	1	0	2
Sleep	**2**	**3**	**2**	**7**
Stress and coping mechanisms	2	1	**0**	3
Thanatology	1	1	**0**	2
THINKING	**1**	1	2	4
Dynamic determine of behavior	1	0	0	1
Aggression	1	1	0	2
Sexual abuse	**1**	**1**	**0**	2
Psychological tests	**1**	1	2	4
Total per category	**31**	32	**17**	**80**

6.Instructional Objective of the lectures:

No.	Lecture title	No. Of lectures	Faculty member	Instructional objective
1	*Introduction to Psychology*	2	Dr. Janan Saeed	• Define psychology and articulate its primary goals. • Identify various methods, schools, and major fields of psychology. • Differentiate between normal and abnormal behavior and classify abnormal behaviors. • Appreciate the complexity and diversity of human behavior.
2	*Emotion*	**1**	Dr. Janan Saeed	• Understand the characteristics, functions, and types of emotions. • Identify and apply various theories of emotion. • Assess and interpret emotional expressions in various contexts. • Develop empathy and recognize the importance of emotional regulation.
3	*Intelligence*	**2**	Dr. Janan Saeed	• Learn key concepts about intelligence, IQ, and mental age. • Understand theories of intelligence and identify different intelligence tests. • Analyze IQ test results and apply intelligence theories. • Value the diversity of intelligence and promote ethical use of assessments.

4	*Learning*	**2**	Dr. Janan Saeed	• Define learning and distinguish it from maturation. • Identify and apply different types of learning (classical, operant, cognitive). • Design experiments to test learning principles and apply them to practical situations. • Appreciate lifelong learning and personal development.
5	*Life Cycle and Development*	**3**	Dr. Janan Saeed	• Understand the aspects and stages of human development from pre-natal to late adulthood. • Analyze developmental changes and apply developmental theories. • Develop respect for individuals at different developmental stages.
6	*Memory*	**2**	Dr. Janan Saeed	Understand the steps and types of memory processes. Employ strategies to improve memory and analyze memory processes. Appreciate the role of memory in daily functioning and promote cognitive health.
7	*Motivation*	**1**	Dr. Janan Saeed	• Understand the motivation cycle and various theories of motivation. • Evaluate motivational factors and apply theories to enhance goals. • Recognize the importance of motivation in achieving success.
8	*Sensation and Perception*	**2**	Dr. Janan Saeed	• Differentiate between sensation and perception. • Understand sensory and perceptual processes,

				thresholds, and theories. • Analyze and apply sensory and perceptual information. • Appreciate the complexity and individual differences in perception.
9	*Personality and Its Development*	**2**	Dr. Janan Saeed	• Understand elements, theories, and stages of personality development. • Assess personality and analyze factors influencing development. • Value individual personalities and promote positive development.
10	*Abnormal Psychology*	**1**	Dr. Janan Saeed	• Define and classify abnormal behavior and understand criteria for normality. • Learn about sleep stages and related disorders. • Identify and differentiate abnormal behaviors and improve sleep hygiene. • Develop compassion towards individuals with psychological disorders.
11	***Sleep***	**2**	Dr. Janan Saeed	• Identify the meaning of sleep and the brain waves that accompany the sleep process • Identify the different stages of sleep and the difference between them, as well as the difference between light sleep and deep sleep • Learn about the features of each stage of sleep • Identify the meaning of dreams, what are the theories that explain dreams, and at what stage dreams occur

				• Identifying the meaning of insomnia and what are the factors that cause insomnia and difficulty sleeping...in addition to identifying the factors that contribute to reducing insomnia and improving sleep quality
12	***Stress and coping mechanisms***	**1**	Dr. Janan Saeed	• Definition of psychological stress • Identify the effects of stress • Identify the conflicts and frustration that result from exposure to stress • Determine the general adaptation syndrome to stress • Identify the types of pressures that a person can be exposed to • Identify the methods that can be followed to overcome stress
13	***Thanatology***	**1**	Dr. Janan Saeed	• Definition of the science of studying death(thanatology) • Benefits of studying thanatology • Studying the forms of an individual's reactions when faced with the death of a relative • Study the methods can an individual follow to adapt after the death of a loved one
14	***THINKING***	**1**	Dr. Janan Saeed	• Study the meaning of thinking • Explain the units that make up thinking • Explaining the forms of thinking • Study of problem solving method • Explain the types of problems that can be solved using the problem-solving method • Explaining the variables that can affect the use of the problem-solving method

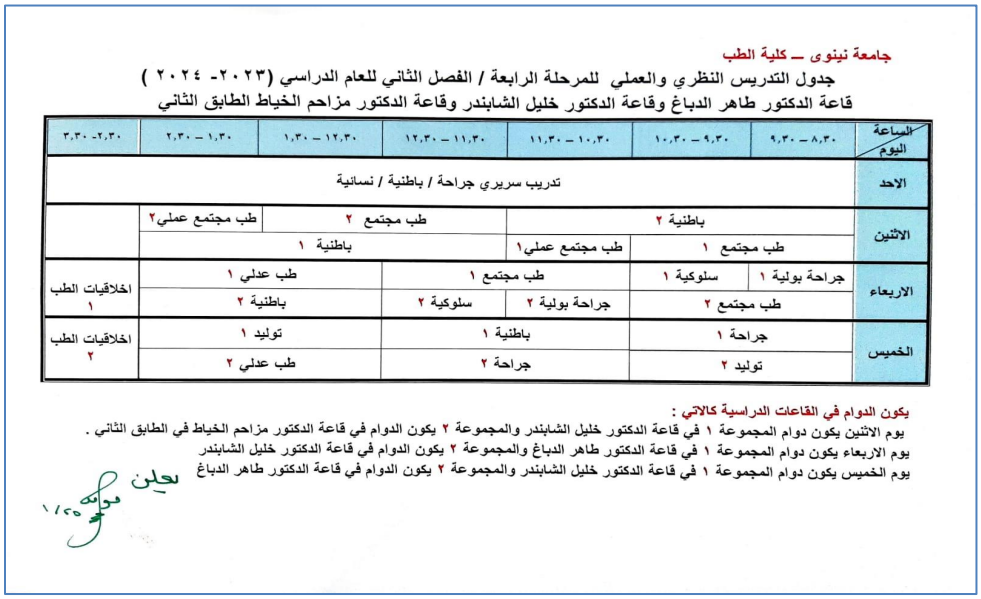
				• Explain some suggestions that can contribute to improving the ability of good thinking
15	***Dynamic determines of behavior***	**1**	Dr. Janan Saeed	• Introduction to studying the dynamic determinants that shape behavior • Statement of the point of view of theories explaining human behavior (psychoanalysis, traits, humanity, behavioral-cognitive) • How to evaluate human behavior in different situations
16	***Aggression***	**1**	Dr. Janan Saeed	• Introduction to the study of aggression • Explaining the types of aggression • Study of the biological foundations of aggression • Explaining the relationship between aggression and some variables (gender, age, culture)….
17	***Sexual abuse***	**1**	Dr. Janan Saeed	• Introduction to the study of sexual abuse • Study the types of sexual abuse • Explain some facts about sexual abuse • Explain the immediate effects of exposure to sexual abuse • Explain the long-term effects of exposure to sexual abuse
18	***Psychological tests***	**2**	Dr. Janan Saeed	• Explain the meaning of psychological tests • Clarifying what is meant by (Standardization, validity, consistency) • Studying some variables that must be taken into account when using psychological tests • Explain the importance of using psychological tests and the benefits of using them • Identify the types of psychological tests and their uses

19	***Psychotherapy***	**2**	Dr. Janan Saeed	• Identify what is meant by psychotherapy • Statement of the goals achieved by the use of psychotherapy • Explaining the characteristics that a psychotherapist should have • Statement of the conditions for the psychotherapy session • Explaining the types of psychological treatments, how to use them, and the techniques used for each treatment method

7. Instructional objectives of the clinical sessions:

No clinical sessions for the subject at this level.

8. Tables of the Course:



جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١٢,٣٠ – ١,٣٠	١,٣٠ – ٢,٣٠	٢,٣٠ -٣,٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ٢		طب مجتمع عملي١	طب مجتمع ١	باطنية ١	طب مجتمع ٢	طب مجتمع عملي٢
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ٢	جراحة بولية ٢	سلوكية ٢	طب مجتمع ١	طب عدلي ١ / باطنية ٢ — اخلاقيات الطب ١
الخميس	جراحة ١	باطنية ١	جراحة ٢	توليد ٢	طب عدلي ٢	توليد ١	اخلاقيات الطب ٢

يكون الدوام في القاعات الدراسية كالاتي :

يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .

يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر

يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

9.Learning Resources

- Hilgard's Introduction to psychology by Rita I Atkinson et al
  - Supplementary books:

- Introduction to Psychology by Mark Garrison.
- Essentials of understanding Psychology by Robert S. Feldman
- Essentials of Psychology by dr. Janan Saeed Alrahoo (in Arabic)

10.Additional Information

1.Contact: jananalrahoo@uoninevah.edu.iq

2.Course Instructor: Assistant professor, Dr. Janan Saeed Alrahoo.

PH. D. in personality and mental health

3.Location: medicine Department / Building of clinical Sciences.

College of medicine _ Ninevah University

Fifth Year Curriculum

منهاج المرحلة الخامسة

المرحلة الخامسة							
	المادة	The Subject	النظري	السريري	عدد الاسابيع	عدد الوحدات	كود المادة
1	الطب الباطني	Internal Medicine	73	60	4	7	529
2	الجراحة	Suregery	60	54	3	6	530
3	النفسية	Psychatry	60	72	4	6	531
4	طب الاطفال	Pediatric	82	115	9	9	532
5	انف واذن وحنجرة	ENT	30	40	2	3	533
6	العيون	Ophalmology	45	45	3	4	534
7	الجلدية	Dermatology	20	15	2	2	535
8	الاشعة	Radiology	30	30	3	3	536
9	النسائية و التوليد	Gynecology	30	40	2	3	537
		المجموع	430	471	32	43	

2023_2024

Internal medicine for the fifth year

1.General Information:

- **Subject**: Internal medicine
- **Code**: (529)
- **Credit hours**: 7 units(Theoretical hours = 75, practical hours 60).
- **Course Language**: English.

2.Syllabus:

Internal Medicine **(**Neurology, Hematology, Rheumatology **,** pharmacology)

- **Neurology:**

1. Neurological Introduction
2. Stroke I, II
3. Neurological Presentation
4. Epilepsy
5. Intracranial Hemorrhage/ SAH
6. Spinal Cord I, Peripheral Nerve diseases
7. Intracranial pressure diseases
8. brain tumors
9. Headache
10. CNS Infections
11. Mysthenia gravis
12. Plexopathies
13. Multiple sclerosis and other demyelinating diseases
14. Speech & Language Disorder
15. Myopathy
16. Neurodegenerative Diseases
17. Sleep medicine
18. Neuro-ophthalmology
19. Cranial nerve disease
20. Cerebral venous thrombosis
21. Vertigo

- **Rheumatology:**

1. Introduction
2. Rheumatoid Arthritis
3. Juvenile Idiopathic Arthritis
4. Osteoarthritis., Systemic lupus erythematosus, Antiphospholipid Syndrome , Systemic Sclerosis

5. Spondyloarthropathies
6. Psoriatic Arthritis
7. Osteoporosis
8. Septic Arthritis
9. Gout
10. Pseudogout
11. Vasculitis
12. Bahcets disease
13. Polymyelgia rheumatic
14. Rehabilitation

- **Hematology:**
  1. Iron deficiency anemia
  2. Megaloblastic anemia
  3. Aplastic anemia
  4. Hereditary & acquired anemias
  5. Hematological malignancies: acute & chronic leukemias
  6. Lymphoma (Hodgkin &NHL)
  7. MDS(myelodysplastic syndrome)
  8. Multiple myeloma
  9. Myeloproliferative disorders (polycythemia, myelofibrosis, thrombocytosis)
  10. Bleeding disorders (hemophilia.von-Wiilebrand disease, platelets disorders
  11. Blood transfusion medicine.
- **Environmental hazards and chemical poisoning.**
- **Basis of oncology**
- **Pharmacology:**
  1. General Consideration of clinical pharmacology
  2. Analgesia Poisoning
  3. Principles of antibiotic therapy
  4. Antiplatelet, anticoagulant and thrombolytics
  5. Antihypertensive drugs/ lipid lowering drugs

3.Learning Objective:

Knowledge

- **Common neurological disorders**: Students will be able to describe the common neurological disorders including causes, clinical features, diagnosis, differential diagnosis, management & prognosis.

- **Common hematological Conditions**: Students will identify the signs, symptoms, and management of commonhematological conditions such anemia, leukemias & bleeding disorders.

- **Common rheumatologic disorders:** students will identify the signs, symptoms, and management of commonhematological conditions such rheumatoid arthritia, SLE, gout.

- **Pharmacology & poisoning** : Students will understand the principles of , including dosing, side effects, overdose and contraindications.

Skills

- **Neurology:** At the end of training course the student is supposed to be able to:
    - Conduct a complete neurologic examination
    - Assess the state of consciousness (according to Glasgow Coma Scale), and orientation of the patient.
    - Assess higher brain functions (memory, and language)
    - Examine cranial nerves functions.
    - Examine the motor functions.
    - Examine the sensory functions.
    - Examine coordination and cerebellar functions
    - Assess the presence of signs of meningitis.
    - Understand the procedures of EEG, EMG, CSF, andother neurologic investigation tools and methods.
    - Propose the sort and site of neurologic lesions.
- **Rheumatology:** At the end of training course the student is supposed to be able to:
    - Differentiate rheumatologic from rehabilitation fields.
    - Take rheumatologic history.
    - Conduct physical examination of rheumatologic patient.
    - Examine of gait, and understand gait types.
    - Understand the effects of physiotherapeutic measures (infrared, UV, shortwave, and microwave therapy, magnatic field therapy, cervical and lumbar traction, and intrarticular injections

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients and their families.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of pediatric patients and their families.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of common neurological, hematological & rheumatological diseases, including treatment & prognosis.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in neurological, hematological & rheumatological diseases.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of neurological & rheumatologic assessments and interventions, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of neurological, hematological & rheumatological conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in medical care, prioritizing the well-being and rights of patients.
- **Patient-Centered Care**: Graduates will provide patient-centered care in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in pediatric medicine.

5.Course Overview

Example :

- **The course is composed of two parts as follow:**

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: Three hours per week (first semester)
- Weekly Hours: Three hours per week (second semester)
- Total: 75 hours per academic year

For the practical part:

- Training duration:
  - Clinical training in neurology (3 weeks: 6 days, 4 hours in each)
  - Clinical training in rheumatology and rehabilitation (2 weeks: 4 days, 4 hours in each)

- **Location**:

-For the theoretical part: Lecture Halls

-For the practical part: Al Salam Teaching Hospital/Clinical Internal Units, consultation units. Ibn Sina Teaching Hospital/Clinical Internal Units, consultation units

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

- *For the practical part.*

- Clinical Rotations
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Simulation Training
- Skills Labs
- Lectures and Seminars

- Ward Rounds
- Clinical Tutorials
- Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course

-Detailed breakdown:

- **Summative assessments:**
- *** Theoretical: 80 mark (20 marks for mid-year exam and 60 marks for final exam)**
- **(each exam consists of 100 single choice questions including problem solving cases)**
- ***Clinical exam : 20 mark (10 marks at the end of Neurology training course and 10 marks at the end of Rheumatology training course).**
- **Pass mark: 50%**

-Pass/Fail Criteria

- **Pass Mark**: 50%
- **Blueprints of mid-year, final exam or any other exam if available**.

Blueprint for 5th year students, Medicine final exam

Hematology		**Percentage**	**No. of questions**	**Total questions**
subject. 1	Introduction to Hematology	1%	1	
Subject 2	Iron Deficiency Anemia I	1%	1	
Subject 3	Iron Deficiency Anemia II	1%	1	
Subject 4	Megaloblastic Anemia	1%	1	

Subject 5	Aplastic Anemia	1%	1	27
Subject 6	Hemolytic Anemia	1%	1	
Subject 7	Congenital Hemolytic Anemias	1%	1	
Subject 8	Autoimmune Hemolytic Anemia	1%	1	
Subject 9	Thalassemia/ Sickle Cell Disease	1%	1	
Subject 10	Acute Leukemia	1%	1	
Subject 11	Treatment of Acute Leukemia	1%	1	
Subject 12	CLL	1%	1	
Subject 13	Lymphoma	1%	1	
Subject 14	N.H.L	1%	1	
Subject 15	Myeloproliferative disorders	1%	1	
Subject 16	AIHA	2%	2	
Subject 17	Bleeding disorders	2%	2	
Subject 18	Platelet disorder	2%	2	
Subject 19	Hemophilia	2%	2	
Subject 20	Blood transfusion	2%	2	
Subject 21	Anticoagulants drugs	2%	2	
Neurology		**Percentage**	**No. of questions**	**Total questions**
subject. 1,2	Introduction to Neurology I,ll	1%	1	
Subject 3,4	Neurological Presentations I,ll	1%	1	
Subject 5	Stoke I	1%	1	
Subject 6	Stroke II	1%	1	

Subject 7	Intracerebral Hemorrhage (ICH)	1%	1	41
Subject 8	Epilepsy I	1%	1	
Subject 9	Epilepsy II	1%	1	
Subject 10	Headache	1%	1	
Subject 11	CNS Infections I	1%	1	
Subject 12	CNS Infections II	1%	1	
Subject 13	Peripheral Neuropathies	1%	1	
Subject 14	DM Neuropathy	1%	1	
Subject 15	Plexopathies	1%	1	
Subject 16	Spinal Cord I	1%	1	
subject. 17	Spinal Cord II	1%	1	
Subject 18	Myasthenia Graves	2%	2	
Subject 19	Multiple Sclerosis I	2%	2	
Subject 20	Multiple Sclerosis II	2%	2	
Subject 21	Speech & Language Disorders	1%	1	
Subject 22	ALS	2%	2	
Subject 23	Parkinson Diseases	2%	2	
Subject 24	PARKINSONISM / Wilson disease	2%	2	
Subject 25	Movement disorders	2%	2	
Subject 26	Dementia	2%	2	
Subject 27	Vertigo and Cerebellar Diseases, neuroophthalmology	3%	3	
Subject 28	Myopathy 1	2%	2	
Subject 29	Myopathy 2	2%	2	

Subject 30	IIH	1%	1	
Subject 31	CVT/ sleep disorders	1%	1	
Rheumatology		**Percentage**	**No. of questions**	**Total questions**
Subject 1	Introduction to Rheumatology	1%	1	21
Subject 2	Rheumatoid Arthritis	1%	1	
Subject 3	Juvenile idiopathic arthritis	1%	1	
Subject 4	OA	2%	2	
Subject 5	SLE	2%	2	
Subject 6	APS	2%	2	
Subject 7	Scleroderma	2%	2	
Subject 8	Spondyloaryhropathies	2%	2	
Subject 9	Psoriatic arthritis & Gout	2%	2	
Subject 10	Osteoporosis	2%	2	
Subject 11	Septic arthritis	2%	2	
Subject 12	Rehabilitation	2%	2	
0ncology, Geriatrics, Pharma/toxic		**Percentage**	**No. of questions**	**Total questions**
Subject 1	Introduction to Cancers	1%	1	11
Subject 2	Treatment of Cancer	2%	2	
Subject 3	Breast Cancer	2%	2	
Geriatrics 1-2		2%	2	
Pharma/toxic 1-2		4%	4	

total summation	100%	100	100

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
Neurology	Neurological Introduction	2	Dr. Abdullah Shakir	To know what is the neurology To know the parts of nervous system , and the functional anatomy To differentiate between upper motor neuron lesion and lower motor neuron lesion To discuss the main investigations that are used for diagnosis of neurological diseases
	Stroke	2	Dr. Waseem Hashim	To understand the meaning of stroke and its mechanism of injury To be rapidly able to evaluate a patient complaining from focal neurological deficit suggesting acute stroke To be able to formulate an accurate differential diagnosis To be able to differentiate between transient ischemic attack and other types of stroke To be able to discuss the Clinical features according to vascular territories To discuss the management

				of acute stroke To evaluate the Complication of acute stroke & discuss its management To formulate the Secondary prevention and long term therapy
	Neurological Presentation	2	Dr. Abdullah Shakir	To identify most clinical manifestation and presentation of neurological diseases To discuss the most clinical definitions in neurology To formulate abnormal body movements and abnormal gait types
	Epilepsy	2	Dr. Waseem Hashim	To define the seizure and epilepsy To discuss the classification of epilepsy To discuss the manifestation of focal seizure To formulate the most common epileptic syndrome To discuss the differential diagnosis of seizure To discuss the Management of seizure To formulate Antiepileptic drugs To discuss the Teratogenicity and problems of pregnancy in epileptic patients To discuss (When to stop Antiepileptic drugs?) To define the Status Epilepticus and discuss its management
	Intracranial Hemorrhage/ SAH	1	Dr. Waseem Hashim	To discuss the Definition, classification and Etiology of Intracranial hemorrhage To know the types of Primary intracerebral hemorrhage, its pathology,

				clinical features management, complications and prognosis. To discuss Subarachnoid hemorrhage, its causes, pathology, clinical features, investigation, management, complications and prognosis.
	Spinal cord	2	Dr. Waseem Hashim	To know the Basic anatomy, physiology and radiology of spinal cord To formulate the general clinical features in sp. cord diseases and discuss localization of sp. cord lesion To discuss some of the common spinal cord diseases: -Transverse myelitis -Spinal Cord Infarction - Infectious Myelopathies - metabolic and toxic myelopathies To discuss Spinal cord compression: o types of compression o clinical features of compression o Causes of spinal cord compression To discuss congenital /Degenerative myelopathy
	Peripheral Nerve diseases	1	Dr. Waseem Hashim	To discuss: Definition of neuropathy. Classification of neuropathy Symptomes of Neuropathy To discuss the common peripheral nerve diseases, including: I. Mononeuropathy

				II. Mononeuritis multiplex III. Polyneuropathy To discuss Gillian barre syndrome its presentation, diagnosis and management diabetic neuropathy
	Intracranial pressure diseases, brain tumors	1	Dr. Waseem Hashim	Discuss the pathology, presentation and management of Intracranial pressure diseases Discuss the common brain tumors
	Headache	2	Dr. Abdullah Shakir	To identify types of headache To formulate Red flag symptoms To discuss Secondary headache causes How to manage each type of headache
	CNS Infections	3	Dr. Abdullah Shakir	To define meningitis and encephalitis and to identify common risk factors and causes of them To discuss major clinical features, diagnostic investigations and management of each type To discuss its complication
	Mysthenia gravis	1	Dr. Waseem Hashim	To discuss the pathophysiology of Myasthenia gravis To discuss major clinical features, diagnostic investigations and management
	Plexopathies	1	Dr. Waseem Hashim	To know anatomy of brachial and lumbosacral plexuses To discuss clinical features of Plexopathies common disease affect them.

	Multiple sclerosis and other demyelinating diseases	2	Dr. Abdullah Shakir	To Discuss the definition and pathophysiology of multiple sclerosis. Recognize the clinical presentations associated with it. Discuss the diagnosis and management of it. Identify other demyelinated diseases
	Speech & Language Disorders	1	Dr. Abdullah Shakir	Review the anatomy of speech centers in the brain Identify the types of speech and language disorders
	Myopathy	2	Dr. Waseem Hashim	To know the definition of myopathy To differentiate myopathy from other causes of weakness To discuss the most valuable tests for evaluating patient with suspected muscle diseases To discuss the general categories of myopathies: - Inflammatory myopathiesand other acquired myopathies. - Hereditary myopathies
	Neurodegenerative	4	Dr. Waseem Hashim	To discuss the pathophysiology of motor neuron disease To formulate the types of motor neuron disease To analyse the presentation and management of ALS To discuss the pathophysiology of Parkinson disease To analyse the presentation and management of PD To formulate the other causes of parkinsonism

				To discuss the pathophysiology of Wilson disease To analyse the presentation, diagnosis and management of Wilson disease To discuss the main causes of chorea, including Huntington disease To discuss the main causes of dystonia To discuss the main causes of ataxia To discuss the main causes of tremor, including Essential tremor To discuss the pathophysiology of Alzheimer disease To analyse the presentation and management of it To formulate the other causes of dementia
	Sleep medicine	1	Dr. Humam Nazar	To discuss the main sleep disorders: Insomnia Obstructive sleep apnea Restlessness legs syndrome Narcolepsy
	Neuro-ophthalmology	1	Dr. Humam Nazar	To discuss the causes of optic neuropathy, Marcus Gunn pupil Horner disease Disorders of eye movement
	Cranial nerve disease	1	Dr. Humam Nazar	To discuss disorders of facial, trigeminal and lower cranial nerves
	Cerebral venous thrombosis (CVT)	1	Dr. Humam Nazar	To discuss the main causes of CVT To analyse the presentation and management of it
	Vertigo	1	Dr. Humam	To differentiate between main causes of vertigo

			Nazar	To discuss the vestibular neuritis
Hematology	Introduction of blood diseases	1	Dr Bassam Ismael	To review the process of hematopoiesis/To define stem cells/To recognize clinical uses of growth factors/To identify the basic investigations of blood diseases/To list the causes of blood cells (count & morphology) changes/To understand the types of anemia
	Iron deficiency anemia	2	Dr. Bassam Ismael	Describe Iron metabolism : sites of iron distribution, function, absorption, transport & storage./ Define Hepcidin& understand its function/ Recognise Stages of IDA/ List the Causes of IDA Identify Pathogenesis of IDA To identify symptoms and signs of IDA To understand biochemical & blood changes in IDA To recognize the treatment of IDA To discuss pathogenesis & treatment of ACD To define sideroblastic anemia. To understand the causes of microcytic anemia To identify physiological blood changes in pregnancy
	Megaloblastic anemia	1	Dr. Bassam Ismael	Define megaloblastic anemia (MA) Recognize Metabolism of B12 &Folate List Causes of MA Identify Clinical features and complications Discuss Pernicious anemia

				Review Treatment List Causes of macrocytic anemia
	Aplastic anemia	1	Dr. Bassam Ismael	Recognize Types of BM failure List Causes of congenital AA Discuss Pathophysiology & causes of Acquired AA Review Idiopathic AA (C/F, Dx, Rx, prognosis) List Causes of pure RBC aplasia Identify DDx of pancytopenia Explain PNH (cause, c/f, diagnosis & Rx)
	Hemolytic anemias : introduction	1	Dr. Bassam Ismael	Define hemolytic anemia Record Classification & Intravascular vs. extravascular HA Describe Clinical features of HA Discess Lab changes in HA Interpret How morphological changes is helpful in diagnosis of type of HA
	Congenital hemolytic anemia : hereditary spherocytosis, G6PD	1	Dr. Bassam Ismael	Identify congenital defects in RBC that lead to HA Recognize the abnormalities in hereditary spherocytosis, inheritance, clinical features & complications, diagnostic methods & treatment Identify how to manage splenectomized patient Describe G6PD deficiency, WHO classification, clinical features & management
	Hemoglobinopathies: thalassemia/sickle cell anemia	1	Dr. Bassam Ismael	Describe the composition of normal Hb Discuss the classification Understand the types of alpha thal.

				Describe the pathogenesis, types, mode of inheritance, c/f, diagnosis , complications & Rx of beta thal. & SCA.
	Autoimmune hemolytic anemia & other types	1	Dr. Bassam Ismael	Identify types of AIHA List the causes of warm type AIHA Record clinical features & investigations Describe Coombs test Review the treatment Recognize cold type AIHA Recognize red cells fragmentation syndrome Describe DIC
	Acute leukemia Chronic myeloid leukemia	2	Dr. Fakr Aldeen Marwan	List types of leukemia Identify causes & epidemiology of leukemia Explain the pathogenesis & clinical features of acute leukemia Discuss investigations To differentiate between ALL & AML Review the complications Review the treatment of acute leukemia Discuss the indications, types, complications & source of SCT. Describe the disease of CML, genetics, clinical features, investigations, treatment & prognosis
	Chronic lymphocytic leukemia & multiple myeloma	1	Dr. Fakr Aldeen Marwan	Define CLL Identify causes, clinical features, diagnosis, autoimmune complications, staging & treatment of CLL Review of MM, causes, features & complications, diagnosis, treatment & prognosis

	Myeloproliferative disorders	1	Dr. Fakr Aldeen Marwan	Define myeloproliferative disorders MPD List the types Recognize the genetic mutation & relationship of MPD Review polycythemia(types, C/F, criteria of Dx& treatment) Review of MF & essential thrombocythemia
	Myelodysplastic syndrome/ Hodgkin & NHL	2	Dr. Fakr Aldeen Marwan	Review MDS List WHO types of HL Identify clinical features, investigations, staging & treatment of HL Record the prognosis of HL Identify the epidemiology/Recognize the causes, clinical features, classification systems, staging, investigations & treatment/To differentiate between HL & NHL
	Bleeding tendency	1	Dr. Bassam Ismael	Define hemostasis Describe stages of hemostasis Identify Hx& clinical presentation od bleeding disorders Discuss the abnormal changes in blood tests Define thrombophilia & identify the causes
	Platelets disorders & von Willebrand disease	1	Dr. Bassam Ismael	Identify the types of platelets diseases. List the causes of ITP Differentiate between acute & chronic ITP Describe the clinical features & investigations & treatment (emergency & chronic) Identify high risk features

				Review VWD
	Hemophilia, Hereditary hemorrhagic telangiectasia &hypersplenism, blood transfusion	2	Dr. Bassam Ismael	Define hemophilia Identify the cause, severity, clinical presentation, diagnosis and Rx Define hemophilia rectory to treatnent& how to manage it. Review HHT & its treatment Define hyper &hyposplenism Describe indications & complications of blood transfusion
	Cancer	3	Dr. Bassam Ismael	To discuss the pathophysiology To discuss the assessment and diagnosis of CA To discuss the management of cancers in general To discuss the pathophysiology, presentation, diagnosis and the management of Breast Cancer
	Geriatric medicine	3	Dr. Bassam Ismael	To define old age To identify approach to geriatric syndromes & comprehensive geriatric assessement
Rheumatology	Introduction	1	Dr. Abdullah Shaker	Overview the rheumatology. Important points in taking history Most important clinical presentations Over view about investigations used
	Rheumatoid arthritis	1	Dr. Abdullah Shaker	Overview about RA Discuss: The clinical presentations of RA Investigations used for the diagnosis

				Lines of treatments Complications of the disease
	Juvenile idiopathic arthritis	1	Dr. Abdullah Shaker	Over view about JRA Discuss the clinical presentations of JRA Investigations used for the diagnosis Lines of treatments Complications of the disease
	Osteoarthritis	1	Dr. Abdullah Shaker	Over view about osteoarthritis Discuss the clinical presentations of osteoarthritis Investigations used for the diagnosis Lines of treatments Complications of the disease
	Systemic lupus erythematosus	1	Dr. Abdullah Shaker	Over view about SLE Discuss the clinical presentations of SLE Systems involved in the disease Investigations used for the diagnosis Lines of treatments Complications of the disease.
	Antiphospholipid antibody syndrome	1	Dr. Abdullah Shaker	Overview about antiphospholipid antibody syndrome Discuss the clinical presentations of antiphospholipid antibody syndrome Investigations used for the diagnosis Lines of treatments
	Systemic sclerosis	1	Dr. Abdullah	Over view about Systemic sclerosis / scleroderma

			Shaker	Discuss the clinical presentations of Systemic sclerosis / scleroderma Systems involved in the disease Investigations used for the diagnosis Lines of treatments Complications of the disease
	Spondyloarthropathies	1	Dr. Abdullah Shaker	Over view about Spondyloarthropathies Discuss: the clinical presentations of ankylosing spondylitis Reiter syndrome Investigations used for the diagnosis Lines of treatments Complications of the disease
	Psoriatic arthritis	1	Dr. Abdullah Shaker	Over view about Psoriatic arthritis Discuss the clinical presentations of Psoriatic arthritis Investigations used for the diagnosis Lines of treatments Complications of the disease
	Septic arthrits	1	Dr. Abdullah Shaker	Overview about Septic arthritis Discuss the clinical presentations of Septic arthritis Investigations used for the diagnosis Lines of treatments Complications of the disease
	osteoporosis	1	Dr. Abdullah Shaker	Define osteoporosis Risk factors Who to investigate it

				Line of treatment To know What is paget disease
	Gout, pseudogout	1	Dr. Abdullah Shaker	To discuss the pathology of crystal induced arthropathy To identify the clinical presentation, diagnosis and managment
	Vasculitis, Bahcets disease, polymyelgia rheumatic	1	Dr. Abdullah Shaker	Over view about vasculitis Discuss the general clinical presentations of vasculitis diseases Investigations used for the diagnosis Lines of treatments Complications of this diseases
	Rehabilitation	1	Dr. Abdullah Shaker	Overview about rehabilitation Methods used for physiotherapy Indications and contraindications of its use
Pharmacology & drus poisoning	General Consideration of clinical pharmacology / Analgesia Poisoning	1	Dr. Faris Mahmood Lolan	discuss the clinical aspects of pharmocoogy discuss the clinical presentation of Analgesia Poisoning Identify the lines of management and prognosis
	Principles of antibiotic therapy	1	Dr. Faris Mahmood Lolan	discuss the clinical aspects of antibiotic therapy
	Antiplatelet, anticoagulant and thrombolytics	1	Dr. Faris Mahmood Lolan	discuss the clinical aspects of Antiplatelet, anticoagulant and thrombolytics use
	Antihypertensive drugs/ lipid lowering drugs	1	Dr. Faris Mahmood Lolan	discuss the clinical aspects of Antihypertensive drugs and lipid lowering drugs use

7.Instructional objectives of the clinical sessions:

	Session title	No. Of hours	Faculty member	Objectives
	General exam	10 hours		Methods & training of general examination (cognitive function, speech, gait)
	Cranial nerves	10		To learn & practice cranial nerves examination & meningeal signs
	Upper & lower limbs	10		To learn methods of neurological examination of **upper & lower limbs including posture, tone, poer, reflexes & coordination Cerebellar function examination, sensory examination**
	4 sessions for rheumatology	30		To learn & practice methods of different joints examination

8.Tables of the Course

جامعة نينوى – كلية الطب

جدول التدريس النظري والسريري للمرحلة الخامسة / الفصل الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور طاهر الدباغ

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠
الأحد	أطفال	أطفال	جراحة	جلدية	اشعة	جراحة
الاثنين	باطنية	باطنية	عيون	جراحة	جراحة	أطفال مناقشة
الثلاثاء	نسائية	نسائية	أنف وأذن وحنجرة	طب	نفسية	نفسية
الاربعاء	تدريب سريري					
الخميس	تدريب سريري					

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة الخامسة
للعام الدراسي ٢٠٢٣ - ٢٠٢٤

الشهر	9	9	10	10	10	10	11	11	11	11	11	12	12	12	12	12	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
اليوم	20	27	4	11	18	25	1	8	15	22	29	6	12	20	27	3	10	17	24	31	7	14	21	28	6	13	20	27	3	10	17	24	1	8	
1	عصبية				اطفال			تسائية			كسور			بولية			امتحانات نصف السنة والعطلة الربيعية						مفاصل	ENT	عيون	اشعة	جلدية								
2		اطفال				عصبية			كسور			نسائية			جلدية								نفسية			بولية									
3	نفسية		اشعة		جلدية			عصبية			اطفال			نسائية									بولية			مفاصل								
4		ENT		نفسية		اشعة			اطفال			عصبية			عيون										بولية			كسور							
5	مفاصل		ENT		عيون		اشعة	جلدية		نفسية	عصبية																		نسائية							
6		بولية		مفاصل		نفسية		عيون		اشعة		جلدية	ENT																							
7	كسور		بولية		مفاصل		ENT		عيون		نفسية																									
8	نسائية		كسور		بولية		مفاصل	ENT		اشعة																									

9.Learning Resources

Essential text books:

• Davidson's Principle and practice of Medicine

• Macleod’s clinical examination

Other resources and Suggested textbooks:

• Kumar and clarck’s clinical medicine, Harrison’s principles of internal medicine, ABC of clinical hematology

• Up to date and Medscape website

10.Additional Information

Course instructor: Dr. Bassam Ismael Jasim Al-Zuhairy

Email: bassam.jasim@uoninevah.edu.iq

Location: department of internal medicine

Surgery for the fifth year

1.General Information:

- **Subject**: Surgery
- **Code**: (530)
- **Credit hours**: 9 units (82-hour theory and 115-hour practical).
- **Course Language**: English.

2.Syllabus:

Module: Orthopedics

-introduction to orthopedics

- Common clinical symptoms and signs in orthopedics
- Basic imaging and other diagnostic tools relative to the subject
- General management outlines

-Introduction to fractures

- terminology used in orthopedics
- general assessment of orthopedic trauma patient
- management methods in fractures and dislocations
- general and local complications in musculoskeletal trauma

-**fractures and dislocations**

- diagnosis of common fractures and dislocations of the upper and lower limbs
- management outlines
- specific complications related to each musculoskeletal trauma and their management

-**non-traumatic orthopedic problems**

- overuse syndromes
- musculoskeletal infections including acute and chronic osteomyelitis and septic arthritis
- hand infections
- common benign and malignant musculoskeletal tumors
- congenital and developmental musculoskeletal disorders

Module: Pediatric surgery:

- Introduction to pediatric surgery and differences between pediatric and adults.
- Surgical causes for respiratory distress in neonates and infants and how to differentiate between different causes.
- Congenital Diaphragmatic hernia types and presentation.
- Esophageal atresia and tracheoesophageal fistula.
- Anorectal malformations.
- Gastrointestinal bleeding part 1.
- Gastrointestinal bleeding part 2.
- Neonatal intestinal obstruction, causes, presentation and management of each.
- Hirschsprung's Disease.
- Abdominal wall defects (Omphalocele and gastroschises)

Module: Neurosurgery

-Neuroanatomy:

- Central nervous system (brain and spinal cord)
- Peripheral nervous system
- Cranial nerves and their functions
- Spinal cord tracts and pathways
- Neurovascular anatomy

-Neurophysiology:

- Basic principles of neural function
- Electrophysiology
- Neurotransmission

-Neurological Examination:

- History-taking and patient assessment
- Neurological examination techniques
- Localization of lesions

-Neurological Disorders:

- Traumatic brain injury
- Spinal cord injury
- Stroke (ischemic and hemorrhagic)

- Brain tumors
- Spinal tumors
- Degenerative spine disorders (e.g., disc herniation, spinal stenosis)
- Epilepsy
- Movement disorders (e.g., Parkinson's disease)
- Neurovascular disorders (e.g., aneurysms, arteriovenous malformations)

-Neurosurgical Procedures:

- Craniotomy and craniectomy
- Spinal surgery techniques (e.g., laminectomy, discectomy, fusion)
- Stereotactic neurosurgery
- Endovascular procedures
- Neuro-oncological procedures
- Deep brain stimulation
- Pediatric neurosurgery

-Diagnostic Modalities:

- Imaging techniques (CT, MRI, angiography)
- Electrophysiological studies (EEG, EMG, nerve conduction studies)

-Neurocritical Care:

- Management of neurosurgical emergencies
- Intracranial pressure monitoring and management
- Postoperative care of neurosurgical patients

Module: Cardiovascular surgery

-Vascular lectures

- Introduction to vascular surgery.
- Chronic limb ischemia
- Acute limb ischemia
- Non-atherosclerotic limb ischemia.
- Arterial aneurysm.
- Vascular trauma.
- Venous disease.

-Thoracic Lectures

- Pleural disease.
- Hydatid Cyst.
- Bronchogenic carcinoma.
- Chest Trauma.
- Mediastinum.
- Bronchiectasis.
- Thoracic outlet syndrome.
- Bronchoscopy.

-Cardiac lectures

- Acquired Heart Diseases.
- Congenital Heart Diseases.

Module: Plastic surgery

-Burns:

- Definition.
- Classification.
- Physiologic response to burn injury.
- Indications of admission.
- Resuscitation and initial management.
- Calculation of total burn surface area.
- Monitoring in major burns.
- Electrical injuries.
- Acute-phase burn reconstruction.
- Topical antimicrobials for burn wounds.
- Complications.

-Cleft lip and palate:

- Types of cleft lip & palate and etiology.
- Clinical features.
- Management of cleft lip and palate.

-**Principles of plastic surgery:**

- Skin anatomy: applied anatomy.
- Skin graft.
- Skin flaps.
- Z- plasty: definition and clinical application.

-skin lesions & tumors:

- Benign lesions:
- Epidermal nevus.
- Seborrheic keratosis.
- Cutaneous horn.
- Keratoacanthoma.
- Pyogenic granuloma.
- Cysts (epidermoid cyst, dermoid cyst).
- Skin malignancies:
- Basal cell carcinoma.
- Cutaneous.
- SCC melanoma.

-vascular tumors & vascular malformation:

- The common types of vascular tumor.
- Management of vascular tumors.
- Management of vascular malformations.

-hand & hand infections:

- Hand examination.
- Principle of hand surgery.
- Hand abscess.
- Management of hand infection.

-suture materials:

- Types of sutures.
- Uses of sutures.

Module: Anesthesia

-General Anesthesia 1:

- Definitions.
- Spectrum of techniques available for anesthesia.
- Introduction.
- General anesthesia protocol.
- Pharmacodynamics of GA.
- Depth of anesthesia.
- Intravenous anesthesia.

-General Anesthesia 2:

- Inhalational anesthesia.
- Drugs used for inhalational anesthesia.
- Neuromuscular blocking agent (Muscle relaxant).
- Types of muscle relaxant.
- Indication to use of muscle relaxant.

-Local Anesthesia & Regional Anesthesia:

- Definitions
- Indication for Local or Regional Anesthesia
- Contra indication to the use of local anesthesia.
- Local anesthetics.
- Mechanism of action of local drugs.
- Local anesthetic toxicity.
- Types of Local Anesthesia.

-Cardiopulmonary Resuscitation:

- Goal
- Chain of survival
- Basic Life Support [BLS]
- Advanced Cardiac Life Support [ACLS.

3.Learning Objective:

Knowledge:

Understanding Surgical Diseases:

- Pathophysiology, clinical features, diagnostic methods, and management of common surgical conditions in orthopedics, neurosurgery, pediatric surgery, plastic surgery and cardiovascular surgery.
- Surgical anatomy relevant to common procedures.
- Principles of preoperative assessment, risk stratification, and optimization.
- Postoperative management, including pain control, fluid and electrolyte balance, and recognition of complications.
- Initial management of trauma patients (ATLS principles).
- Basic principles of surgical asepsis and sterilization.

- Common surgical procedures, indications, and contraindications.

Skills:

- Conducting thorough surgical histories and physical examinations.
- Interpreting diagnostic tests (imaging, laboratory results).
- Performing basic surgical procedures (suturing).
- Developing differential diagnoses and formulating management plans.
- Applying evidence-based medicine in surgical decision-making.

Attitude:

- Demonstrating ethical behavior and professionalism in all clinical interactions.
- Respecting patient confidentiality and informed consent principles.
- Effectively communicating with patients, families, and healthcare team members.
- Exhibiting leadership skills in clinical settings when appropriate.

Specific Competencies:

- Proficiency in basic surgical techniques (e.g., knot tying, instrument handling).
- Managing common postoperative complications (e.g., infections, bleeding).
- Familiarity with specialized surgical fields (e.g., orthopedics, neurosurgery, cardiothoracic surgery).
- Understanding the role of minimally invasive surgery and its applications.

4. Outcomes for Educational Program

Knowledge:

- Understanding of surgical anatomy, pathology, and physiology.
- Knowledge of common surgical conditions, their presentations, diagnostic workups, and treatment options.
- Familiarity with pre-operative, intra-operative, and post-operative care principles.
- Detailed understanding of various surgical procedures, including indications, contraindications, and potential complications.
- Knowledge of surgical instruments and their uses.
- Principles of aseptic technique and infection control.

- Understanding of the basic and advanced principles of surgery.
- Knowledge of surgical ethics, patient safety, and quality improvement.

Skills:

- Proficiency in basic surgical techniques such as suturing, knot-tying, and incision making.
- Ability to take thorough patient histories and perform comprehensive physical examinations.
- Proficiency in interpreting diagnostic tests and imaging relevant to surgical conditions.
- Skills in developing differential diagnoses and treatment plans.
- Proficiency in pre-operative assessment and optimization of patients.
- Effective management of post-operative care, including recognizing and managing complications.
- Ability to provide appropriate patient education and discharge planning.

Attitude:

- Commitment to ethical principles and professional behavior in all interactions.
- Demonstrating responsibility, reliability, and integrity in clinical practice.
- Ability to communicate effectively with patients, families, and healthcare team members.
- Demonstrating effective teamwork and collaboration in the operating room and other clinical settings.
- Ability to respect and integrate the contributions of all team members.
- Commitment to continuous learning and staying updated with the latest surgical advancements.
- Engagement in reflective practice and self-assessment to improve clinical skills and knowledge.
- Showing empathy and compassion in patient interactions and care delivery.

Implementation Strategies

- **Lectures and Seminars**: Regularly scheduled sessions covering core surgical topics and recent advancements.
- **Hands-on Training**: Supervised practice in surgical skills labs.
- **Case Discussions and Grand Rounds**: Interactive sessions to discuss complex cases, enhancing diagnostic and decision-making skills.

- **Assessments and Feedback**: Regular evaluations through written exams, OSCEs (Objective Structured Clinical Examinations), and direct observation, with constructive feedback.

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part. 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: 3 hours per week (first semester)
- Weekly Hours: 2.5 hours per week (second semester)
- Total: 85 hours per academic year

For the practical part:

The students divided in to small groups (15-20 student). The training course only in urology and orthopedic. Each course duration is 3 weeks and at the end of the training course, the exam was held.

- Weekly four hours for first semester
- Weekly four hours for the second semester

- **Location**:

-For the theoretical part: Lecture Hall at college campus

-For the practical part: the students are divided into small groups each of 15-20 student. the clinical training in teaching hospitals (Al-Salam teaching hospital & Al-Jumhory teaching hospital).

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.

- Interactive Teaching
- Case-Based Learning

- *For the practical part.*
  - Clinical Rotations
  - Bedside Teaching
  - Outpatient clinics, minor procedures and casting room
  - Case-Based Learning (CBL)
  - Problem-Based Learning (PBL)
  - Simulation Training
  - Skills Labs
  - Lectures
  - Ward Rounds
  - Clinical Tutorials
  - Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, end course clinical exam.
- **Continuous Feedback**: Provided throughout the course.

-*Components of Assessment:*

- Written Exams (80% of total grade)
- End course clinical examination (OSCE) (20% of total grade)

-*Detailed Breakdown*

- **Written Exams (80 mark)**:
  - Midterm Exam: 20 mark (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions).
  - End term Exam: 60 mark (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions).

❖ **End course Clinical Examination (20mark)**:

- Each group trained in 2 courses: urology course and orthopedic course, the exam occurs at the end of each course. Urology course (10mark) and orthopedic course (10mark).

-Pass/Fail Criteria

- **Pass Mark**: 50%
- **Continuous Assessment**
- **Examples: Assignments, quizzes, presentations, peer evaluations.**
- **Blueprints of final exam. (Total 100)**

Units	Remembering	understanding	Problem solving	Total no. of MCQ
Orthopedic	**25**	**15**	**10**	**50**
Neurosurgery	**8**	**4**	**3**	**15**
Cardiovascular	**5**	**3**	**2**	**10**
Plastic surgery	**5**	**3**	**2**	**10**
Pediatric surgery	**5**	**3**	**2**	**10**
Anesthesia	**3**	**1**	**1**	**5**

6.Instructional Objective of the lectures:

Lecture title	**No. of lectures**	**Faculty member**	**Instructional objectives**
Orthopedic			
Introduction to orthopedics	**3**	**Dr. Muthanna Hashim Dawood**	• Definition of orthopedics. • Clinical signs and symptoms in orthopedics. • Imaging studies
Introductions to	**3**	**Dr. Ali**	• Terminology and classifications of orthopedic traumas

orthopedic trauma		**Khairaldin**	• Clinical and radiological diagnosis of fractures and dislocations • Management methods of fractures and dislocations • Complications of fractures and dislocations and their management
Shoulder orthopedic	**2**	**Dr. Farook Makki**	• to define shoulder joint and shoulder girdle. • to Revise the anatomy of the shoulder joint • to enumerate the most common symptoms and signs of shoulder disorder. • to outline the most common causes of shoulder pain. • to define rotator cuff syndrome and its divisions • impingement syndrome: definition, pathogenesis, clinical feature, treatment • calcific tendinitis definition and treatment. • biceps tendon disorder • definition of frozen shoulder and treatment modalities.
Fractures and dislocations around the shoulder girdle	**3**	**Dr. Ali Khairaldin**	• Clavicle injuries mechanism, diagnosis, management and complications • Shoulder dislocations types, diagnosis management and complications • Acromioclavicular and sternoclavicular dislocations diagnosis and management • Humerus bone neck fractures epidemiology, management and complications.

Elbow orthopedic disorders	**2**	**Dr. Farook Makki**	• Elbow joint anatomy. • ELBOW DEFORMITY (Cubitus Varus and valgus and recurvatum). • Pulled elbow management. • Osteochondritis dissecans. • Lateral epicondylitis (tennis elbow) • Medial epicondylitis (golfers' elbow). • Olecranon bursitis.
Humerus fractures and elbow dislocations	**3**	**Dr. Ali Khairaldin**	• Shaft fractures mechanisms, management and complications • Supracondylar fractures epidemiology, mechanism, diagnosis, management and complications • Elbow dislocations types, diagnosis, management and complications
Forearm and wrist fractures and dislocations	**3**	**Dr. Ali Khairaldin**	• Mechanism, diagnosis, management and complications of: -Radius and ulna fractures -Montaggea fracture dislocation -Galeazzi fracture dislocation -Distal radius fractures: Colle's, Smith, Barton, and radial styloid fractures • Scaphoid fractures
Wrist and hand disorders	**3**	**Dr. Muthanna Hashim Dawood**	• Wrist and hand anatomy. • Wrist joint examinations • Volkmann ischemic contracture. • Radial club hand and Madelung's deformity. • Distal radioulnar dislocation. • Kienböck's disease. • De Quervain's Tenosynovitis. • Ganglion • Carpal tunnel syndrome. • Hand congenital anatomy. • Duputreyns contracture and mallet fingers.

			• Trigger finger. • Hand infection.
Bone infections	**2**	**Dr. Farook Makki**	• Acute osteomyelitis definition, etiology, pathology, diagnosis, management and complications • Chronic osteomyelitis management
Septic arthritis	**2**	**Dr. Farook Makki**	• Septic arthritis (definition, clinical features and management) • Tuberculous arthritis clinical feature and management. • Brucellosis arthritis (clinical feature and treatment)
Pelvic trauma	**2**	**Dr. Muthanna Hashim Dawood**	• Pelvis (anatomy, imaging study, fracture classification, initial and definitive treatment, complications). • Acetabulum (anatomy, imaging study, fracture classification, treatment). • Sacrum fracture (epidemiology and prognosis). • Coccyx fracture (epidemiology and treatment).
Hip fractures and dislocations	**2**	**Dr. Muthanna Hashim Dawood**	• Intracapsular hip fractures epidemiology, diagnosis, management and complications • Extracapsular hip fractures management and complications. • Hip dislocation etiology, management and complications
Hip orthopedic disorders	**3**	**Dr. Muthanna Hashim Dawood**	• DDH pathology, screening, diagnosis and management • Perth's disease pathology, clinical and radiological staging and management • Slipped capital femoral epiphysis
Femur fracture		**Dr. Muthanna**	• To know how to manage femur fracture

	2	**Hashim Dawood**	• To know the classification of tibial plateau fracture. • patella fracture types and treatment. • Patella dislocation and treatment.
Knee orthopedic disorders	**1**	**Dr. Ali Khairaldin**	• Knee anatomy and biomechanics • Sport injuries if medial and lateral menisci and ACL – mechanism, clinical and radiological diagnosis, and management • Osteoarthritis epidemiology, diagnosis and management • Knee arthritis, synovitis and loose bodies classification, diagnosis and management
Tibia fracture	**2**	**Dr. Farook Makki**	• The classification of tibia fracture. • To know the steps of management of fracture tibia • the types of ankle sprain
Ankle and foot fracture	**2**	**Dr. Muthanna Hashim Dawood**	• Ankle fracture classifications and how to manage. • talus fracture. • calcanean fracture. • metatarsal fractures. • Base of fifth metatarsal fracture.
Bone tumors	**2**	**Dr. Ali Khairaldin**	• the definition and classification of bone tumor. • to know the types of bone tumor. • to know how to do staging • the imaging modalities used in the detection of bone tumor • what are the treatment options for each
Nerve injuries		**Dr. Muthanna Hashim**	• Pathology of nerve injuries and healing • Diagnosis, management and follow up of nerve injuries

		Dawood	• Specific major nerve injuries etiology, diagnosis and management
Pediatric surgery			
Introduction to pediatric surgery	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• to know the differences between pediatric and adults from different surgical aspect, • how to deal with pediatric surgical patients regarding resuscitation and fluid treatment. • How neonates control their body temperature. • Timing of surgery.
Respiratory distress surgical aspect	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• to know the differential diagnosis of surgical causes of respiratory distress in neonates and infants. • how can we differentiate between each cause from clinical and radiological evaluation? • to know the commonest surgical conditions that cause respiratory distress.
Esophageal atresia and tracheoesophageal fistula	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• To know what is esophageal atresia. • to know the types and presentation of esophageal atresia and differences in diagnosis and management of each type types. • to learn the students what is the most important action to be done in suspected cases. • The proper surgical management of the commonest type and its post-operative care.
Congenital diaphragmatic hernia	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• to know what is diaphragmatic hernia and how it happened in intrauterine life. • to know the different types of diaphragmatic hernia and how to differentiate between each one clinically and radiologically. • special concentration on the congenital diaphragmatic hernia in relation to

			presentation, proper way for resuscitation and management strategy. • To know some information about intrauterine management of congenital diaphragmatic hernia by fetal surgical correction.
ANORECTAL malformations	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• to know what is Imperforate anus. • the classification of anorectal malformation and its difference in male and female. • how to evaluate (clinically and radiologically) and diagnose the different types of Anorectal malformations in both male and female neonates, • to know the role of radiology in evaluation of types and prognosis of anorectal malformation • To learn about difference in management in relation to sex of patients and types of lesions.
Bleeding from Alimentary tract	**2**	**Dr. Bassam Khaleel Al-Abbasi**	• to know how to differentiate between many causes of upper and lower GIT bleedings. • To how the nature of bleeding and general condition of the patients affect the presentation. • To know the commonest causes of upper GIT bleeding with detail about the commonest cause. • to discuss in brief the congenital hypertrophic pyloric stenosis in relation to cardinal signs and the diagnostic tool with short notes about surgical correction. • To have some details information about the commonest causes of rectal bleeding in pediatrics, and discuss briefly the presentation, investigation

			and management of its commonest causes including, Meckel's diverticulum, malrotation with mid gut volvulus, rectal polyps, anal fissure, bowel duplications and other conditions.
Neonatal intestinal obstruction	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• the students should know the cardinal signs of neonatal intestinal obstruction. • how to evaluate a newborn baby presented with neonatal intestinal obstruction • to know what are the different clinical and radiological signs that can be used to differentiate between the causes for Neonatal intestinal obstruction. • to know the different non-surgical and surgical management of neonatal intestinal obstruction. • To discuss in brief the causes, presentation, investigations, and management of common causes of neonatal intestinal obstruction including Duodenal atresia, small bowel atresia (and its classification), Meconium ileus including its types and non-operative management), and malrotation,
Hirschsprung disease	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• to have a valuable information about one of the commonest pediatric surgical problems that cause megacolon and its pathophysiology. • to know the different modes of presentation of Hirschsprung's Disease in neonate and older children. • to learn how radiology and histopathology can diagnose this problem. • To have brief information about recent advances in surgical correction of Hirschsprung's Disease and its

			complication.
Abdominal wall defects	**1**	**Dr. Bassam Khaleel Al-Abbasi**	• the students should know the different types of abdominal wall defects and how to diagnose each of them from. Clinical examination. • with special concerns on omphalocele and gastroschises and the way to differentiate between both of them from clinical and management strategy in addition to similarities and differences in management for both of them.
Plastic surgery			
Principles of plastic surgery	**2**	**Dr. Faysal Saud Shaeer**	• At the end of the academic year the student should understand the principles pf plastic surgery, reconstructive ladder, types of skin graft, differentiate between types of skin grafts and types of flaps.
Cleft lip and palate	**1**	**Dr. Faysal Saud Shaeer**	• At the end of the academic year the student should understand types and etiology of cleft lip and palate. • Clinical features of cleft lip and palate. • General principles and management of cleft lip and palate.
Vascular tumors and vascular malformations	**1**	**Dr. Faysal Saud Shaeer**	• Differentiate between vascular tumors and vascular malformations. • Know the common types of vascular tumors. • General management of vascular tumors and vascular malformations.
Burn and burn management	**2**	**Dr. Faysal Saud Shaeer**	• Definition, etiology, clinical feature and types of burn. • Differentiate between clinical types of burn. • Emergency management of burn injury. • Long-term management of burn. • Complications of burn.

Hand and hand infection	**2**	**Dr. Faysal Saud Shaeer**	• the student should understand hand examination. • Principles of hand surgery. • Investigations used for hand diseases. • General management for hand infections. • Common types, clinical features, diagnosis and management of common types of hand infections.
Suture materials	**1**	**Dr. Faysal Saud Shaeer**	• The student should understand types, classification, and uses of sutures, and know about other substance used for wound closure.
Skin tumors	**1**	**Dr. Faysal Saud Shaeer**	• The student should understand the common types of skin tumors, its clinical features and management. • Premalignant skin conditions. • Etiology, classification and management of common malignant skin tumors.
Neurosurgery			
Traumatic brain injury (TBI)	**1**	**Dr. Aows M. Thabit**	• Understanding the importance of intracranial pressure (ICP) and related parameters. Cushing's triad, Glasgow Coma Scale (GCS), Non-accidental injury, moderate and severe traumatic brain injury.
Fractures: skull vault and management	**1**	**Dr. Aows M. Thabit**	• Describe: Closed and comminuted fractures of the skull vault and management. • skull base fractures, extradural hematoma, acute subdural hematoma, chronic subdural hematoma, traumatic subarachnoid hemorrhage, Cerebral contusions, Diffuse axonal injury, Post concussive syndrome.

Trauma to the neck and the spine	**1**	**Dr. Aows M. Thabit**	• Describe …Spinal stability, patient assessment, Spinal examination, American Spinal Injury Association (ASIA) Impairment Scale, Jefferson fracture, Hangman's fracture, sub axial cervical spine (C3–C7), pathophysiology of spinal cord injury, Neurogenic shock, Spinal shock, Complete versus incomplete spinal cord injury, complications associated with spinal cord injury.
Hydrocephalus	**1**	**Dr. Aows M. Thabit**	• Describe: Obstructive and communicating hydrocephalus, Treatment of hydrocephalus, Shunt complications, Endoscopic third ventriculostomy.
Intracranial infection and Vascular malformations	**1**	**Dr. Aows M. Thabit**	• Describe …Presentation, diagnosis, management of (Meningitis, Brain abscess, Subdural empyema, Tuberculosis). • Subarachnoid hemorrhage, ICH, Aneurysm, AVM (investigation and surgical intervention)
Brain tumors	**1**	**Dr. Aows M. Thabit**	• Describe …Clinical Presentation and investigation of the Cerebral metastases, Glioma, Meningioma, Pituitary tumors, Vestibular schwannoma, Brain tumors in children, Cysts intracranial lesions.
Neural tube defects	**1**	**Dr. Aows M. Thabit**	• Spina bifida occulta, tethered cord syndrome, Meningocele, Myelomeningocele, Chiari II malformation • Lipomyelomeningocele, Encephalocele, Craniosynostosis.

Craniosynostoses-sis, Epilepsy surgery	**1**	**Dr. Aows M. Thabit**	• Types of craniosynostosis, diagnosis, management • What is the epilepsy surgery, indication, types? • Risks of craniotomy.
(The spine) **Tumors, infections** **degenerative conditions**	**1**	**Dr. Aows M. Thabit**	• Epidemiology, physical examination, Myelopathy, Red flags in spine presentation, Non-spinal causes of back pain, degenerative conditions of the spine, Spinal stenosis, spondylolysis, spondylolisthesis, Metastatic tumors, Pyogenic vertebral osteomyelitis.
Review of all topics in neurosurgery	**1**	**Dr. Aows M. Thabit**	• Any Question or new subject ??
Cardiovascular surgery			
Introduction to Vascular Surgery and C**hronic Limb Ischemia**	1	Dr. Fawaz Al Faqe	• Explain the basic principles and scope of vascular surgery. • Identify common vascular conditions and their surgical treatments. • Describe the pathophysiology of chronic limb ischemia. • Outline the diagnostic approaches and treatment options for chronic limb ischemia.
Acute Limb Ischemia and Non-Atherosclerotic Limb Ischemia	1	Dr. Fawaz Al Faqe	• Recognize the causes and clinical features of non-atherosclerotic limb ischemia. • Evaluate diagnostic methods and therapeutic strategies for non-atherosclerotic limb ischemia.
Arterial Aneurysm	1	Dr. Fawaz Al Faqe	• Define arterial aneurysm and understand its pathogenesis. • Assess the surgical and non-surgical

			management of arterial aneurysms.
Vascular Trauma	1	Dr. Fawaz Al Faqe	• Identify the types and mechanisms of vascular trauma. • Describe the initial assessment and surgical repair techniques for vascular injuries.
Venous Disease	1	Dr. Fawaz Al Faqe	• Explain the pathophysiology of common venous diseases, including varicose veins and deep vein thrombosis. • Discuss diagnostic tools and treatment modalities for venous diseases.
Anesthesia			
General Anesthesia 1	**1**	**Dr. Mohanad Adnan**	• Definitions. • Spectrum of techniques available for anesthesia. • Introduction. • General anesthesia protocol. • Pharmacodynamics of GA. • Depth of anesthesia. • Intravenous anesthesia
General Anesthesia 2	**1**	**Dr. Mohanad Adnan**	• Inhalational anesthesia. • Drugs used for inhalational anesthesia. • Neuromuscular blocking agent (Muscle relaxant). • Types of muscle relaxant. • Indication to use of muscle relaxant.
Local Anesthesia & Regional Anesthesia	**1**	**Dr. Mohanad Adnan**	• Definitions • Indication for Local or Regional Anesthesia • Contra indication to the use of local anesthesia. • Local anesthetics. • Mechanism of action of local drugs. • Local anesthetic toxicity.

			• Types of Local Anesthesia.
Cardiopulmonary Resuscitation.	**1**	**Dr. Mohanad Adnan**	• Goal • Chain of survival • Basic Life Support [BLS] • Advanced Cardiac Life Support [ACLS.

7.Instructional objectives of the clinical sessions:

Clinical sessions	Faculty member	Instructional objectives
Orthopedic sessions 2 day per week For 3 weeks	• **Dr. Muthanna Hashim Dawood** • **Dr. Ali Khairaldin** • **Dr. Farook Makki**	• History taking and Clinical examination of musculoskeletal system. • Communication skills for approaching the patient in a safe and human way. • Proper ordering for radiological and imaging studies and systematic reading of x-rays and other imaging workup. • Sound requiring and interpretation of lab investigations and other work-ups needed for diagnosis and preparation of the patient for orthopedic interventions. • Basic orthopedic skills required in casualty unit and orthopedic wards like cast application, skin and skeletal traction and bandaging. • Reduction techniques for common fractures and dislocations such as shoulder dislocation, elbow dislocation, Colle's fracture and hip dislocation. • Ability to recognize and safely deal with orthopedic emergencies and complications of musculoskeletal traumas and postoperative complications. • Self protection of the doctor and medical staff from contagious disease, work injuries and medico legal issues.
Urology sessions 2 day per week For 3 weeks	**Dr. Alaa J. Turki** **Dr. Azzawi Mustafa** **Dr. Mohammad**	• History taking in urology • Physical examination in urology • Investigations (laboratory, imaging, and others) • Uro-radiology: imaging studies in urology

	Fawzi	(ultrasound-KUB-IVU-CT scan) • Urinary stone diseases: presentation, differential diagnosis, investigations, treatment options, complications • Renal colic: management • Urinary tract infections - Pyelonephritis - Pyonephrosis - Renal abscess - Cystitis - Urethritis • Foleys catheters: definition, types, indications, contraindications, complications

8.Tables of the Course

جدول التدريس النظري والسريري للمرحلة الخامسة / الفصل الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور طاهر الدباغ

الساعة / اليوم	٨,٣٠ – ٩,٣٠	٩,٣٠ – ١٠,٣٠	١٠,٣٠ – ١١,٣٠	١١,٣٠ – ١٢,٣٠	١,٣٠ – ٢,٣٠
الأحد	أطفال	أطفال	جراحة	اشعة	جراحة
الاثنين	باطنية	باطنية	عيون	جراحة	جلدية	أطفال مناقشة
الثلاثاء	نسائية	نسائية	أنف وأذن وحنجرة	طب	نفسية	نفسية
الاربعاء	تدريب سريري				
الخميس	تدريب سريري				

يعلن
١/٢٥

9.Learning Resources

- Baily and Love's Textbook
- Brows Clinical Examination

10.Additional Information

- Dr. Alaa Jameel Turki – urology
  Alaa.turki@uoninevah.edu.iq
- Dr. Muthanna Hashim Dawood- instructor of orthopedics at Dept. of Surgery
  muthanna.dawood@uoninevah.edu.iq
- Dr. Fawaz Mahmood Mustafa – cardiovascular surgeon
  Fawaz.mustafa@uoninevah.edu.iq
- Dr. Bassam Khalil Younus – pediatric surgeon
  Bassam.younus@uoninevah.edu.iq
- Dr. Aous Mohammad Thabit – neurosurgeon
  Aous.mohammadthabit@uoninevah.edu.iq
- Dr. Faysal Saud Shaeer – plastic surgeon
  Faysal.shaeer@uoninevah.edu.iq
- Dr. Mohanad Adnan – anesthesiologist

Location: surgery department

psychiatry for the fifth year

1.General Information:

- **Subject**: Psychiatry
- **Code**: (531)
- **Credit hours**: 4 units(Theoretical 40 hours, Clinical 16 hours for each group).
- **Coarse Language**: English.

2.Syllabus:

- Introduction to Psychiatry
- Anxiety Disorders
- Panic disorder
- Schizophrenia Spectrum and Other Psychotic Disorders
- Dissociative disorders
- Obsessive-Compulsive and Related Disorder
- Treatment in psychiatry
- Personality disorder
- Mood Disorder
- Eating disorder
- Sleep disorders
- Liaison disorder
- Psychosomatic medicine
- Somatic disorders
- Child psychology
- Consultation-liaison psychiatry
- Neurocognitive disorders
- Women mental health

- Substance use and addictive disorders
- Substance abuse
- Human sexuality
- Old Psychiatry
- Forensic psychiatry

3.Learning Objective:

Knowledge

By the end of the course, students should be able to:

1. Understand the subject of psychiatry

2. Know the types of mental illness

3. Know the clinical methods of diagnosing mental illness

4. Know the drugs that are used in the treatment of mental illnesses and their complications

5. Understand the mechanisms of mental illness and ways to prevent the development of the disease and its complications

• **Diseases of systems:**

Students will identify signs and symptoms of common diseases in psychiatric diseases (e.g., anxiety disorders, mood disorders).

They will understand the methods of diagnosing these diseases (e.g., physical examination, laboratory tests).

Students will learn about treatment options, preventive methods and potential complications associated with psychiatric illnesses.

- **Evidence-Based Practice:** Students will be able to identify evidence-based guidelines and best practices in psychiatric care care.
- **lifelong learning**: Students will be encouraged for lifelong learning, by
    - **Critical Thinking:**

Encourage students to question assumptions, analyze information, and evaluate evidence critically.

Incorporate case studies, problem-solving exercises, and discussions that require thoughtful analysis.

- **Independent Learning**:

Foster self-directed learning by providing resources such as updated textbooks, online courses, and research articles.

Encourage students to explore topics beyond the curriculum and pursue their interests.

- **Technology Integration:**

Using technology tools for learning, such as educational apps, virtual simulations, and online platforms.

Teach digital literacy skills, including effective internet searching and evaluating

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills

2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses

3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

Skills:

Clinical Examination:

Students will perform physical examinations on psychiatric patients

They will learn techniques for assessing signs, symptoms and scales in psychiatric diseases.

Communication:

Students will demonstrate effective communication skills when interacting with psychiatric patient and their families.

They will learn to convey information clearly, listen actively, and address concerns empathetically.

- **Skills objectives of the program includes**

- Greeting the patient
- Introduction of student name
- Asking permission to take history or examine the patient

At the end of interview thanking the patient for their agreement to take history or examine the patient and wishing for improvement of the patient

- **Emotional and Value Objectives:**

- Respect for the patient and his companions
- Dealing gently with patients
- Good behavior with workers in the sites

Attitudes:

Empathy and Compassion:

Students will exhibit empathy and compassion in their interactions with psychiatric patients and their families.

They will understand the emotional impact of illness on patient and caregivers.

Professionalism:

Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

They will uphold professional standards in their clinical practice.

Cultural Sensitivity:

Students will show cultural sensitivity and respect for diverse backgrounds.

They will recognize cultural differences and adapt their approach accordingly.

- **Ethical Practice**: students will consistently adhere to ethical principles in psychiatric care, prioritizing the well-being and rights of psychiatric patient.
- **Patient-Centered Care**: students will provide patient-centered care that involves families in decision-making and respects their preferences and needs.

lifelong learning:

Continuous Improvement: Students will engage in lifelong learning and continuous professional development to stay current with advances in psychiatric medicine.

4. Outcomes for Educational Program

Based on the provided learning objectives, educational program outcomes for psychiatric care program:

Knowledge:

- **Outcome 1:** 1. Solve the mental problems in the field of clinical work
- **Outcome 2:** Conduct clinical and laboratory examinations related to mental illness, use simple psychological devices in treating common diseases
- **Assessment:** Students will be assessed through formative and summative theoretical and clinical examinations

Skills:

- **Outcome 3:** Students will demonstrate proficiency in performing comprehensive psychiatric physical examinations with using appropriate techniques.
- **Outcome 4:** Students will effectively communicate with psychiatric and their families, adapting their communication style to each patient's needs and cultural background.
- **Outcome 5:** Students will competently perform basic psychiatric procedures.
- **Assessment:** Students will be assessed through formative and summative clinical examinations

Attitudes:

- **Outcome 6:** Students will demonstrate professionalism in their interactions with patients and families, exhibiting punctuality, respect, ethical decision-making, and cultural sensitivity.
- **Outcome 7:** Students will consistently demonstrate empathy and compassion when caring for psychiatric patients and their families, creating a supportive and understanding environment.
- **Assessment:** Students will be assessed through formative and summative clinical examinations regarding communication skills

Evidence-Based Practice:

- **Outcome**: Graduates will be proficient in identifying evidence-based guidelines and best practices in psychiatric care.
- **Assessment:** Students will critically evaluate clinical guidelines during theoretical analytic MCQ questions and through case-based clinical small group clinical discussions to inform their practice.

Lifelong learning

- **Critical Thinking Enhancement**:
- **Outcome:** Graduates will demonstrate improved critical thinking skills by analyzing complex problems, evaluating evidence, and making informed decisions.
- **Assessment**: Students will participate in analysis of case scenarios in theoretical MCQ questions and also in clinical case-based discussions, debates, and critical analysis exercises.
- **Independent Learning Proficiency:**
- **Outcome:** Graduates will be adept at self-directed learning, seeking out relevant resources beyond the classroom.
- **Assessment:** Students will create personalized learning plans, explore additional readings, and engage in independent seminars and student researches
- **Digital Literacy Development:**
- **Outcome:** Graduates will effectively use technology for learning, research, and communication.
- **Assessment:** Students will demonstrate proficiency in online searching, evaluating sources, and using educational apps through engaging in independent seminars and student researches

Additional Considerations:

Feedback and Revision:

Gather feedback from students and instructors throughout the program.

Feedback delivered to students by the college regarding students' opinions of teaching staff and educational program

Use feedback to identify areas for improvement, update content, and revise teaching methods to continuously enhance the curriculum**.**

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part. 2. Practical part*

- **Duration**: Academic tear

For the theoretical part:

- Weekly Hours: Two hours per week (first semester)
- Weekly Hours: Two hours per week (second semester)

- Total: 40 hours per academic year

For the practical part:

Weekly Hours: 8 hours per week for each group

Duration of a course for each group: 2 weeks course

Total: 16 hours for each group in the academic year

- **Location**:

-For the theoretical part: Lecture Hall in the college campus

-For the practical part: Teaching hospitals (Psychiatric wards at Ibn-Sina Hospital and Al-Salam Hospital)

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Evidence-based learning
- Case-Based Learning
- Encourage lifelong learning: (by Encouraging critical thinking, independent learning, using technology and further reading from updated references and researches

Methods of teaching theoretical part:

The lecture is conducted by the lecturer in the lecture hall with the commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.
2. Adopting the Google classroom approach, in downloading lectures few days prior to date of lecture, also downloading pictures and videos if needed, in order to assist the student in understanding
3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.
4. Supporting the lecture with educational techniques through the

computer and data display device.
5. Make a short **formative exam** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation

- ***For the practical part.***

- Small group teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Ward Rounds
- Peer Teaching and Learning
- Encourage lifelong learning: (by Encouraging critical thinking, independent learning, using technology and further reading from updated references and researches

Methods of teaching practical part:

During the clinical course, students will receive the following training:

1. Communication skills
2. History taking
3. psychiatric Examination

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills
2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses
3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams

In the theoretical part

- Make a short **formative examination** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation
- Sending MCQ by google format

In the practical part

Formative assessment of students during the course through history presentation, clinical examination and discussion

- **Summative Assessments**:
  - **Theoretical:** Midterm exams, end term exams
  - **Practical:** OSCE
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-*Components of Assessment:*

- Written Exams (80% of total grade)
- Objective Structured Clinical Examination (OSCE) by long case clinical exam (20% of total grade)

-*Detailed Breakdown*

- **Written Exams (80%)**:
  - Midterm Exam: 20% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), and case-based questions)
  - End term Exam: 60% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs, and case-based questions)
- **Objective Structured Clinical Examination (OSCE) (10%)**:
  - Clinical exams in hospital at the end of two week of the clinical course

- A standardized evaluation form is approved by all members of the psychiatric department and announced to students prior to each clinical course (**attached at the end of the document**) assessing history taking knowledge and skill; examination knowledge and skill; attitude and communication skills
    - **Pass Mark**: 50%
    - Students must achieve a combined score of at least 50% from all components to pass the course.
    - **Continuous Assessment**
    - **Examples**: formative MCQ After each lecture, bed side formative assessment

Mark Assessment/fifth stage

Mark Assessment/fifth stage			**total**
Annual quest **20 marks**	Mid-year (theoretical) 20 marks	Final year (theoretical) 60 marks	100
Clinical (at the end of clinical training)	MCQ categorized according to blue print	MCQ categorized according to blue print	
20	20	60	100

Blueprints of final exam/ psychiatry

	final written exam 5th stage psychiatry						Year: 2023-2024							
								Cognitive Skill			Ass.			
	Unit LOs	I	F	I*F	weight (I*F)/T	No. of marks for 100 question exam(W	No. of test items on each SLO	Remembering (direct question)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	Total no. of items	
1	Introduction to Psychiatry	3	1	3	0.022	1.3	2	0	0	0	100			
2	Anxiety Disorders	1	1	1	0.007	0.4	0	0	0	0				
3	Panic disorder	3	1	3	0.022	1.3	1	0	0	0				
4	Schizophrenia Spectrum and Other Psychotic Disorders	3	8	69	0.5	30.0	4	2	3	1				
5	Dissociative disorders	3	3	9	0.065	3.9	4	2	3	1				
6	Obsessive-Compulsive and Related Disorder	3	1	3	0.022	1.3	1	0	0	0				
7	Treatment in psychiatry	3	2	6	0.043	2.6	3	1	2	1				
8	Personality disorder	3	2	6	0.043	2.6	3	1	2	1				
9	Mood Disorder	2	2	4	0.029	1.7	2	0	1	0				
10	Eating disorder	2	2	4	0.029	1.7	2	0	1	0				
11	Sleep disorders	2	2	4	0.029	1.7	2	0	1	0				
12	Liaison disorder	1	1	1	0.007	0.4	0	0	0	0				
13	Psychosomatic medicine	1	2	2	0.014	0.9	1	0	0	0				
14	Somatic disorders	1	1	1	0.007	0.4	0	0	0	0				
15	Child psychology	1	1	1	0.007	0.4	0	0	0	0				
16	Consultation-liaison psychiatry	3	2	6	0.043	2.6	3	1	2	0				
17	Neurocognitive disorders	3	2	6	0.043	2.6	3	1	2	0				
18	Women mental health	2	1	2	0.014	0.9	1	0	0	1				
19	Substance use and addictive disorders	1	2	2	0.014	0.9	1	1	1	1				
20	Substance abuse	1	2	2	0.015	0.7	1	1	0	0				
21	Human sexuality	2	2	4	0.025	0.8	2	2	1	1				
22	Old Psychiatry	1	2	2	0.015	0.5	1	1	0	0				
23	Forensic psychiatry	1	2	2	0.017	0.5	1	1	0	0				

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Introduction to Psychiatry	2	Dr. Ekhlas Mohammed	• The goal is to know definition of psychiatry. • The view about psychiatric illness through ages. • The connection between civilization and psychiatry. • The development of medical sciences and its effect on the foundation of modern psychiatry
	Anxiety Disorders	1	Dr. Ekhlas Mohammed	• Recognize main types of anxiety and risk factors. • Signs and symptoms of Generalized Anxiety Disorder. • Recognize complications and differential diagnosis. • Recognize main methods of treatment.
	Panic disorder	1	Dr. Othman Al-moula	Recognize the definition of panic disorders, clinical features and treatment. Recognize the definition of phobic disorders, clinical features, treatment and special types of phobias. Recognizing definition of posttraumatic stress disorder, its Course and Treatment
	Schizophrenia Spectrum and Other Psychotic Disorders	3	Dr. Ekhlas Mohammed	• introduce about schizophrenia. • define schizophrenia. • identify the schizophrenia. • specify the epidemiological factors of schizophrenia. • explain the types of schizophrenia. • explain the causes of schizophrenia. • describe about clinical features of schizophrenia. • list the assessment tools for schizophrenia.

				• mention the treatment and psychotherapy used for schizophrenia.
	Dissociative disorders	1	Dr. Othman Al-moula	• Describe how dissociative disorders present. • Describe the epidemiology of dissociative disorders. • Describe comorbidity in relation to dissociative disorders. • Describe the etiology of dissociative disorders. • Describe treatment options for dissociative disorders.
	Obsessive-Compulsive and Related Disorder	1	Dr. Ekhlas Mohammed	• Describe how obsessive-compulsive disorders present. • Describe the epidemiology of obsessive-compulsive disorders. • Describe comorbidity in relation to obsessive-compulsive disorders. • Describe the etiology of obsessive-compulsive disorders. • Describe treatment options for obsessive-compulsive disorders.
	Treatment in psychiatry	3	Dr. Othman Al-moula	To recognize the Medications that are used to treat the symptoms of mental disorders such as schizophrenia, depression, bipolar disorder, anxiety disorders, and attention deficit hyperactivity disorder (ADHD). Mechanism of action, Metabolism and side effects of these medications
	Personality disorder	2	Dr. Ekhlas Mohammed	• Define what is meant by a personality disorder. • Identify the domains of general personality. • Identify the personality disorders • Summarize the etiology for antisocial and borderline personality disorder. • Identify the treatment for borderline personality disorder

				and antisocial personality disorder.
	Mood Disorder	3	Dr. Othman Al-moula	• Differentiate between bipolar and differentiate between a manic and a hypomanic episode. Emphasize the impact of bipolar disorders on patients' lives. • Recognize the early onset and chronic course of bipolar disorder. • List some medical and psychiatric differential diagnoses, risk factors, and comorbidities associated with bipolar disorders. • Describe common and severe side effects of mood stabilizers (namely lithium, valproic acid, and lamotrigine).
	Eating disorder	1	Dr. Ekhlas Mohammed	• Educate students, faculty, and the community regarding the etiology, treatment, diagnoses, and current issues in the field of eating disorders. • Promote awareness about eating disorders and coordinate the annual Eating Disorders Awareness Week. • Advocate for greater awareness surrounding the prevalence, consequences, and treatment needs and outcomes of eating disorders.
	Sleep disorders	1	Dr. Othman Al-moula	• Identify the etiology of sleep disorders. • Describe the evaluation of sleep disorders. • Explain the management options available for sleep disorders. • Summarize an interprofessional approach to coordinating care in treating patients with sleep disorders to achieve the best patient outcomes.
	Liaison disorder	1	Dr. Ekhlas	Define Liaison psychiatry.

			mohammed	The role of the GPs and other community health services in liaison psychiatry. recognizing what sort of medical problems do Liaison psychiatry deal with.
	Psychosomatic medicine	1	Dr. Othman Al-moula	• Understand relevant concepts related to psychosomatic medicine which resides at interface of physical and mental illnesses. • Appreciate that accurate diagnosis and treatment of depression in medically ill patients, improves quality of life, enhances engagement in treatment, decreases symptom quantity and severity, and decreases cost utilization, morbidity and mortality. • Acquire preliminary skills to evaluate and intervene adequately to manage somatic symptoms and related disorders.
	Somatic disorders	2	Dr. Ekhlas mohammed	• Describe somatic symptom disorder. • Review the epidemiology of somatic symptom disorder. • Explain how to effectively manage a patient with somatic symptom disorder. • Outline modalities to improve care coordination among interprofessional team members in order to improve outcomes for patients affected by somatic symptom disorder.
	Child psychology	4	Dr. Othman Al-moula	• Define developmental theory and explain how theories are used to understand child behavior and development. • Examine and discuss major theories of child development. • Evaluate the effectiveness of

				theories in terms of their practical applications in parenting and teaching. • Analyze the effect of biological, environmental and cultural influences on development of children of all ages
	Consultation-liaison psychiatry	1	Dr. Othman Al-moula	• To recognize the multiple roles of an interdisciplinary team in the patient's treatment and management plan. • To develop advanced knowledge of psychopharmacology in a medical environment with emphasis on interactions of psychotropic medications with other medications • To understand the multiple roles of an interdisciplinary team in the patient's treatment and management plan.
	Neurocognitive disorders	2	Dr Othman Al-moula	• To know the types and diagnostic criteria of neurocognitive disorders. • To understand their etiology, presentation, severity, and complications. • to know the lines of management of neurocognitive disorders.
	Women mental health	1	Dr. Ekhlas mohammed	• Increasing the understanding of the importance of improved mental health for women and girls. • Reducing the personal, economic, and societal tolls of mental illnesses. • Expanding the accessibility of quality mental health services for women and girls Increasing the number of activities that promote mental wellness in culturally competent and gender appropriate ways

	Substance use and addictive disorders	3	Dr. Othman Al-moula	• To learn about various drugs. • To identify risk factors and protective factors associated with substance abuse (drugs and alcohol). • To discuss what addiction is and the consequences of it. • To determine behaviours that increase well-being and allow students to achieve life goals.
	Substance abuse and addictive disorders	2	Dr. Ekhlas mohammed	• Define substances and substance abuse. • Describe properties of substance abuse. • Describe how substance use disorder presents. • Describe how substance intoxication presents. • Describe how substance withdrawal presents.
	Human sexuality	2	Dr. Othman Al-moula	• Define Human Sexuality • Understand the Differences between Sexual Orientation, Gender, Gender Identity, and Sexual Attraction • Compare and contrast the benefits and drawbacks of sexual reproduction • Compare and contrast the differences sexual and asexual reproduction.
	Old Psychiatry	1	Dr. Ekhlas mohammed	To recognize prevention, evaluation, diagnosis and treatment of mental and emotional disorders in the elderly and improvement of psychiatric care for healthy and ill elderly patients.
	Forensic psychiatry	1	Dr. Othman al-moula	• To develop an appreciation for the overlay of legal issues into psychiatric cases, whether civil or criminal. • To gain understanding of specific topics unique to forensic psychiatry such as malpractice, psychic damages, insanity

				defense, competency, informed consent, and civil commitment. • To develop expertise in forensic evaluation and interviewing, and participation in legal proceedings.

7.Instructional objectives of the clinical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	Clinical sessions	4	All teachers	At the end of the training period, the student should be able to: • Practice of Communication skills • Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses • To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

8.Tables of the Course

- جداول التدريب النظري والعملي والسريري

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة الخامسة

للعام الدراسي ٢٠٢٣ - ٢٠٢٤

الشهر	9	9	10	10	10	10	10	11	11	11	11	11	11	12	12	12	12	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	5	5
اليوم	20	27	4	11	18	25	1	8	15	22	29	6	12	20	27	3	10	17	24	31	7	14	21	28	6	13	20	27	3	10	17	24	1	8	1
1	عصبية	اطفال	نسائية	كسور	بولية													امتحانات نصف السنة والعطلة الربيعية																		
2	اطفال	عصبية	كسور	نسائية	جلدية																														
3	نفسية	اشعة	جلدية	عصبية	اطفال	نسائية																													
4	ENT	نفسية	اشعة	اطفال	عصبية	عيون																													
5	مفاصل	ENT	عيون	اشعة	جلدية	نفسية	عصبية																												
6	بولية	مفاصل	نفسية	عيون	اشعة	جلدية	ENT																												
7	كسور	بولية	مفاصل	ENT	عيون	نفسية																													
8	نسائية	كسور	بولية	مفاصل	ENT	اشعة																													

9.Learning Resources

References

Shorter Oxford Textbook of Psychiatry (seventh edition)

Up to date and Medscape website

Pub med

10.Additional Information

Contact: alaa.ali@uoninevah.edu.iq

Location: فرع الطب الباطني

11.Appendix

1. **Student base learning picture**

Student base learning

Pediatrics for the fifth year

1.General Information:

- **Subject**: Pediatrics
- **Code**: (532)
- **Credit hours**: 6 units(Theoretical 60 hours, Clinical 72 hours).
- **Course Language**: English.

2.Syllabus:

-Pediatric Growth and Development

- Child growth
- Child development (2 lectures)

-**Infant feeding**

- Breast feeding
- Bottle feeding

- **Childhood immunization**
- **Nutrition disorders**
  - Failure to thrive
  - Rickets
- **Neonatology**
  - Terminology &Neonatal Examination
  - Neonatal resuscitation and preterm birth & IUGR &LGA
  - Birth injury and Neonatal seizure
  - Metabolic disorder in neonate
  - Respiratory distress syndrome
  - Respiratory disorder in Neonate
  - Neonatal jaundice (2 lectures)
  - Neonatal sepsis& Necrotizing Enterocolitis
  - Congenital infection
- **Human Genetics& Dysmorphology (2 lectures)**
- **Diseases of systems**
- **GIT**
  - Gastroenteritis (2 lectures)
  - Infantile colic, GER
  - Chronic diarrhea
  - Constipation
- **Infection**

- Common childhood rashes
- Meningitis & encephalitis
- Mumps, pertussis, diphtheria
- Polio, tetanus, Kala-azar

Respiratory Disorders:

- Common cold, Acute pharyngitis and tonsillitis
- Croup, Acute epiglottitis, Laryngomalacia, Foreign bodies in the airway
- Acute bronchiolitis, Community acquired pneumonia
- Asthma in children
- Cystic fibrosis

- **Renal Diseases**:
  - Acute renal failure
  - Complications of ARF
  - Acute nephritis
  - Henoch-Schönlein purpura and Hemolytic-Uremic Syndrome.
  - Urinary tract infection
  - Nephrotic syndrome
- **CNS**
  - Congenital anomalies of CNS
  - Cerebral palsy
  - Seizure in childhood
  - Neurocutaneous disorders
  - Floppy infant syndrome
- **Hematology & oncology**
  - Anemia
  - Iron Deficiency Anemia
  - Hemolytic Anemia
  - Hemoglobinopathies
  - Bleeding Disorders
  - Leukemia
  - Childhood Lymphoma
  - Solid Tumor
- **Endocrine**
  - Congenital hypothyroidism & Short stature
  - Diabetes mellitus
  - Diabetic ketoacidosis
  - Congenital Adrenal hyperplasia

- **Cardiac**
  - Acyanotic CHD
  - Cyanotic CHD
  - Acquired heart diseases
  - Heart failure
  - Arrhythmia & cardiac tumors
- **Poisoning**
- **Behavioral disorders**

3.Learning Objective:

Knowledge

• **Pediatric Growth and Development:** Students will be able to describe the normal physical, cognitive, and development milestones for children from birth to adolescence.

They will recognize key developmental stages (e.g., motor skills, fine motor skills ,language , hearing and visual acquisition, social interactions)..

• **Infant feeding:** Students will be able to identify various ways of feeding children, including breastfeeding, formula feeding, and complementary feeding.

They will understand the benefits and challenges associated with different feeding methods

• **Childhood immunization :**Students will learn about vaccinations, including their purpose, types, and importance. They will understand the methods of vaccine administration (e.g., intramuscular, subcutaneous) and the recommended schedules for childhood immunizations.

Students will be aware of common side effects associated with vaccines

• **Diseases of systems:**

Students will identify signs and symptoms of common diseases in children (e.g., respiratory infections, gastrointestinal disorders).

They will understand the methods of diagnosing these diseases (e.g., physical examination, laboratory tests).

Students will learn about treatment options, preventive methods and potential complications associated with pediatric illnesses.

- **Evidence-Based Practice:** Students will be able to identify evidence-based guidelines and best practices in pediatric care.
- **lifelong learning**: Students will be encouraged for lifelong learning, by
    - **Critical Thinking:**

Encourage students to question assumptions, analyze information, and evaluate evidence critically.

Incorporate case studies, problem-solving exercises, and discussions that require thoughtful analysis.

- **Independent Learning**:

Foster self-directed learning by providing resources such as updated textbooks, online courses, and research articles.

Encourage students to explore topics beyond the curriculum and pursue their interests.

- **Technology Integration:**

Using technology tools for learning, such as educational apps, virtual simulations, and online platforms.

Teach digital literacy skills, including effective internet searching and evaluating

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills

2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses

3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

Skills:

Clinical Examination:

Students will perform comprehensive pediatric physical examinations on newborns, infants, and children

They will learn techniques for assessing vital signs, growth parameters, and developmental milestones.

Communication:

Students will demonstrate effective communication skills when interacting with children of different ages and their families.

They will learn to convey information clearly, listen actively, and address concerns empathetically.

- **Skills objectives of the program includes**

- Greeting the patient
- Introduction of student name and affiliation to the parents
- Asking permission to take history or examine the patient

At the end of interview thanking the parents for their agreement to take history or examine the patient and wishing for improvement of the patient

- **Emotional and Value Objectives:**

- Respect for the patient and his companions
- Dealing gently with children
- Good behavior with workers in the sites

Procedures:

Students will competently perform basic pediatric procedures such as growth and development assessment

Attitudes:

Empathy and Compassion:

Students will exhibit empathy and compassion in their interactions with pediatric patients and their families.

They will understand the emotional impact of illness on children and caregivers.

Professionalism:

Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

They will uphold professional standards in their clinical practice.

Cultural Sensitivity:

Students will show cultural sensitivity and respect for diverse backgrounds.

They will recognize cultural differences and adapt their approach accordingly.

- **Ethical Practice**: students will consistently adhere to ethical principles in pediatric care, prioritizing the well-being and rights of children.
- **Patient-Centered Care**: students will provide patient-centered care that involves families in decision-making and respects their preferences and needs.

lifelong learning:

Continuous Improvement: Students will engage in lifelong learning and continuous professional development to stay current with advances in pediatric medicine

4. Outcomes for Educational Program

Based on the provided learning objectives, educational program outcomes for pediatric care program:

Knowledge:

- **Outcome 1:** Students will be able to apply their knowledge of infant feeding practices, childhood immunization schedules, and typical childhood development milestones to provide comprehensive care for children from birth to adolescence.
- **Outcome 2:** Students will be able to identify signs and symptoms of common pediatric diseases across various body systems, analyze potential diagnoses, and understand common treatment strategies, preventive methods, and disease complications.
- **Assessment:** Students will be assessed through formative and summative theoretical and clinical examinations

Skills:

- **Outcome 3:** Students will demonstrate proficiency in performing comprehensive pediatric physical examinations, including newborn, infant, and adolescent assessments, using appropriate techniques.
- **Outcome 4:** Students will effectively communicate with children of different ages and their families, adapting their communication style to each patient's needs and cultural background.
- **Outcome 5:** Students will competently perform basic pediatric procedures such as basic pediatric procedures such as growth and development assessment

- **Assessment:** Students will be assessed through formative and summative clinical examinations

Attitudes:

- **Outcome 6:** Students will demonstrate professionalism in their interactions with patients and families, exhibiting punctuality, respect, ethical decision-making, and cultural sensitivity.
- **Outcome 7:** Students will consistently demonstrate empathy and compassion when caring for pediatric patients and their families, creating a supportive and understanding environment.
- **Assessment:** Students will be assessed through formative and summative clinical examinations regarding communication skills

Evidence-Based Practice:

- **Outcome**: Graduates will be proficient in identifying evidence-based guidelines and best practices in pediatric care.
- **Assessment:** Students will critically evaluate clinical guidelines during theoretical analytic MCQ questions and through case-based clinical small group clinical discussions to inform their practice.

Lifelong learning

- **Critical Thinking Enhancement**:
- **Outcome:** Graduates will demonstrate improved critical thinking skills by analyzing complex problems, evaluating evidence, and making informed decisions.
- **Assessment**: Students will participate in analysis of case scenarios in theoretical MCQ questions and also in clinical case-based discussions, debates, and critical analysis exercises.
- **Independent Learning Proficiency:**
- **Outcome:** Graduates will be adept at self-directed learning, seeking out relevant resources beyond the classroom.
- **Assessment:** Students will create personalized learning plans, explore additional readings, and engage in independent seminars and student researches
- **Digital Literacy Development:**
- **Outcome:** Graduates will effectively use technology for learning, research, and communication.
- **Assessment:** Students will demonstrate proficiency in online searching, evaluating sources, and using educational apps through engaging in independent seminars and student researches
-

Additional Considerations:

Feedback and Revision:

Gather feedback from students and instructors throughout the program.

Feedback delivered to students by the college regarding students' opinions of teaching staff and educational program

Use feedback to identify areas for improvement, update content, and revise teaching methods to continuously enhance the curriculum**.**

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**: Academic tear

  For the theoretical part:

  - Weekly Hours: Three hours per week (first semester)
  - Weekly Hours: Three hours per week (second semester)
  - Total: 65 hours per academic year

  For the practical part:

  Weekly Hours: 10 hours per week for each group

  Duration of a course for each group: 3 weeks course

  Total: 30 hours for each group in the academic year

- **Location**:

  -For the theoretical part: Lecture Hall in the college campus

  -For the practical part: Teaching hospitals (Pediatric wards at Ibn Al-Atheer Hospital, Al-Khansa and Al-Salam Hospital)

- **Format**:

  - For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Evidence-based learning
- Case-Based Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching theoretical part :

The lecture is conducted by the lecturer in the lecture hall with the commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.
2. Adopting the Google classroom approach, in downloading lectures few days prior to date of lecture, also downloading pictures and videos if needed, in order to assist the student in understanding
3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.
4. Supporting the lecture with educational techniques through the computer and data display device.
5. Make a short **formative exam** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation

-For the practical part.

- Small group teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Ward Rounds
- Peer Teaching and Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching practical part :

During the clinical course, students will receive the following training:

4. Communication skills
5. History taking
6. Growth parameter examination
7. Examination of different systems of the child body

Clinical objectives:

At the end of the training period, the student should be able to:

4. Practice of Communication skills
5. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses
6. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams

In the theoretical part

- Make a short **formative examination** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation
- Sending MCQ by google format

In the practical part

Formative assessment of students during the course through history presentation, clinical examination and discussion

- **Summative Assessments**:
- **Theoretical:** Midterm exams, end term exams
- **Practical:** OSCE
- **Continuous Feedback**: Provided throughout the course

- **Grading System**

-*Components of Assessment:*

- Written Exams (90% of total grade)
- Objective Structured Clinical Examination (OSCE) by long case clinical exam (10% of total grade)

-*Detailed Breakdown*

❖ **Written Exams (90%)**:

- Midterm Exam: 20% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), and case-based questions)
- End term Exam: 70% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs, and case-based questions)

❖ **Objective Structured Clinical Examination (OSCE) (10%)**:

- Clinical exams in hospital at the end of three week of the clinical course
- A standardized evaluation form is approved by all members of the pediatric department and announced to students prior to each clinical course (**attached at the end of the document**) assessing history taking knowledge and skill; examination knowledge and skill; attitude and communication skills
  - **Pass Mark**: 50%
  - Students must achieve a combined score of at least 50% from all components to pass the course.
  - **Continuous Assessment**
  - **Examples**: formative MCQ After each lecture, bed side formative assessment

Assessment marks / fifth stage

Assessment marks / fifth stage			Total
Annual quest 10 Marks	Mid-year (theoretical) 20 Marks	Final year (theoretical) 70 Marks	100
Clinical (at the end of the three weeks of clinical training)	MCQ Categorized according to a blue print	MCQ Categorized according to a blue print	
10	20	70	100

Blue print mid- year exam

	topic	impact	frequency	I * F	weight	MCQ (60)	بعد التقريب	remembering que	understanding c	problem solving questions	
2	Growth	2	3	6	0.0612245	3.673469388	3	2	1		
3	Development	2	3	6	0.0612245	3.673469388	4	2	2		
4	Feeding	2	3	6	0.0612245	3.673469388	4	2	2		
5	vaccination	2	3	6	0.0612245	3.673469388	3	2	1		
6	nutritional disorders (malnutrition & rickets)	2	2	4	0.0408163	2.448979592	3	1	2		
7	COLIC & GASTROESOPHAGEAL REFLUX	1	2	2	0.0204082	1.224489796	2	1	1		
8	GASTROENTERITIS	3	3	9	0.0918367	5.510204082	5	1	2	2	
9	CELIAC DISEASE,CHRONIC DIARRHEA	2	3	6	0.0612245	3.673469388	4	1	2	1	
10	CONSTIPATION	1	1	1	0.0102041	0.612244898	1	1			
11	introduction to neonatology & Neonatal examination & care+ umbilical hernia & granuloma	1	1	1	0.0102041	0.612244898	1	1			
12	Preterm, IUGR & hypothermia	1	2	2	0.0204082	1.224489796	1		1		
13	Birth injury &birth asphyxia, neonatal siezures & IVH	1	2	2	0.0204082	1.224489796	1		1		
14	Metabolic disorder in neonate	2	3	6	0.0612245	3.673469388	4	2	1	1	
15	Respiratory disorder in neonate	1	3	3	0.0306122	1.836734694	3	1	1	1	
16	Neonatal infections	2	2	4	0.0408163	2.448979592	2	1		1	
17	neonatal jaundice	3	3	9	0.0918367	5.510204082	5	1	2	2	
18	Congenital Anemia, Physiological anemia & Aplastic anemia	1	1	1	0.0102041	0.612244898	1	1			
19	Nutritional deficiency anemia	3	3	9	0.0918367	5.510204082	5	2	2	1	
20	Hemolytic anemia	2	2	4	0.0408163	2.448979592	2	1		1	
21	Hemoglobinopathies	2	2	4	0.0408163	2.448979592	2		1	1	
22	Bleeding tendency	2	2	4	0.0408163	2.448979592	2		1	1	
23	oncology	1	3	3	0.0306122	1.836734694	2	1	1		
24											

Blueprints of final exam

	topic	impact	frequency	I * F	weight	MCQ (70)	بعد التقريب	remembering qu	understanding	problem solving questions
2	Growth & Development	1	1	1	0.009259	0.64814815	1	1	0	0
3	nutritional disorders (malnutrition & rickets)	1	1	1	0.009259	0.64814815	1	1	0	0
4	GASTROENTERITIS	1	1	1	0.009259	0.64814815	1	0	0	1
5	CELIAC DISEASE,CHRONIC DIARRHEA	1	1	1	0.009259	0.64814815	1	0	1	0
6	Preterm, IUGR & hypothermia	1	1	1	0.009259	0.64814815	1	1	0	0
7	Respiratory disorder in neonate	1	1	1	0.009259	0.64814815	1	0	1	0
8	Neonatal infections	1	1	1	0.009259	0.64814815	1	1	0	0
9	neonatal jaundice	1	1	1	0.009259	0.64814815	1	0	0	1
10	Nutritional deficiency anemia	1	1	1	0.009259	0.64814815	1	1	0	0
11	Hemolytic anemia & Hemoglobinopathies	1	1	1	0.009259	0.64814815	1	0	1	0
12	Bleeding tendency	1	1	1	0.009259	0.64814815	1	1	0	0
13	congenital heart diseases(shunts & obstructive lesions)	2	3	6	0.055556	3.88888889	4	2	1	1
14	Heart failure	2	2	4	0.037037	2.59259259	2	1	0	1
15	arrhythmias & cardiac tumors	2	1	2	0.018519	1.2962963	1	1	0	0
16	Acquired heart diseases (rheumatic fever & cardiomyopathy)	1	1	1	0.009259	0.64814815	1	1	0	0
17	Common childhood rashes	2	3	6	0.055556	3.88888889	4	2	1	1
18	Diphtheria, pertussis & Mumps	2	2	4	0.037037	2.59259259	2	1	0	1
19	Tetanus, polio & kala-azar	1	1	1	0.009259	0.64814815	1	0	0	1
20	Meningitis & encephalitis	3	3	9	0.083333	5.83333333	5	3	1	1
21	respiratory tract infection	3	3	9	0.083333	5.83333333	5	3	1	1
22	Upper Airway obstruction	1	1	1	0.009259	0.64814815	1	0	1	0
23	Asthma	2	3	6	0.055556	3.88888889	4	3	0	1
24	Cystic fibrosis	1	1	1	0.009259	0.64814815	1	1	0	0
25	Kidney injury & failure	1	2	2	0.018519	1.2962963	1	1	0	0
26	Hematuria & nephritis	2	2	4	0.037037	2.59259259	2	2	0	0
27	Nephrotic syndrome	2	1	2	0.018519	1.2962963	2	1	1	0
28	UTI & Vesicoureteral Reflux	2	2	4	0.037037	2.59259259	2	1	0	1
29	Congenital adrenal hyperplasia	1	1	1	0.009259	0.64814815	1	1	0	0
30	Diabetes	2	2	4	0.037037	2.59259259	2	0	1	1
31	Hypothyroidism & short stature	1	1	1	0.009259	0.64814815	1	1	0	0
32	Congenital anomalies & neurocutaneous disorders	2	2	4	0.037037	2.59259259	2	2	0	0
33	Seizure in childhood	3	3	9	0.083333	5.83333333	5	3	1	1
34	Status epilepticus	1	1	1	0.009259	0.64814815	1	0	1	0
35	Cerebral palsy	2	2	4	0.037037	2.59259259	2	1	1	0
36	Floppy infant	2	2	4	0.037037	2.59259259	2	2	0	0
37	Genetic diseases	2	2	4	0.037037	2.59259259	2	1	0	1
38	Metabolic diseases	1	1	1	0.009259	0.64814815	1	1	0	0
39	Poisoning	1	1	1	0.009259	0.64814815	1	0	1	0
40	Behavioral disorders	1	1	1	0.009259	0.64814815	1	1	0	0

6.Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Breast feeding:	1	Dr. Aseel sami	To describe and discuss the following topics: - Colostrum - Advantages of breast feeding - Disadvantages of breast feeding - Contraindications to breast feeding - Physiology of breast feeding - Initiation, frequency and duration of breast feeding determination of breast milk supply adequacy supplementation of breast-fed baby - Weaning from breast-feeding - Common breast-feeding problems
	Bottle feeding	1	Dr. Aseel	To discuss the following topics

			sami	• Comparison of human milk, cow's milk and infant formula • Types and properties of infant formulae • Problems of feeding during 1st year of life
	Failure to thrive	1	Dr. Ali Adel	Remembering (Knowledge): Define FTT. What are the criteria for diagnosing FTT? Can you list the types of FTT? Understanding (Comprehension): Explain the etiology of FTT. Describe the approach to a child with FTT. Applying (Application): How would you apply the criteria to diagnose FTT in a real-world scenario? Demonstrate how to approach a child with FTT. Analyzing (Analysis): Compare and contrast the different types of FTT. Analyze the causes and effects of each type. Evaluating (Evaluation): Assess the effectiveness of different treatments for FTT. Justify your choice of treatment for a given case study. Creating (Synthesis): Design a comprehensive care plan for a child with FTT, incorporating definition, etiology, clinical features, complications, investigations, and treatment of Marasmus and Kwashiorkor.
	Rickets	1	Dr. Ali Adel	Remembering (Knowledge): Can you recall the normal metabolism of vitamin D? What is the 14 Definition of rickets? Understanding (Comprehension): Explain the etiology of rickets. Describe the clinical manifestations of rickets. Applying (Application): How would you apply your knowledge of vitamin D metabolism to understand the etiology of rickets? Demonstrate how to identify clinical manifestations of rickets in a patient. Analyzing (Analysis): Analyze the

				radiological and laboratory findings typically seen in a patient with rickets. What do these findings tell us about the disease? Evaluating (Evaluation): Assess the effectiveness of different treatments for rickets based on guidelines. Justify your choice of treatment for a given case study. Creating (Synthesis): Design a comprehensive care plan for a patient with rickets, incorporating your understanding of vitamin D metabolism, the definition and etiology of rickets, its clinical manifestations, radiological and laboratory findings, and treatment guidelines.
	Child growth	1	Dr. Ahmed Khalil	To discuss the following topics: • Stages of growth &development • Factors affecting growth & development • Normal growth parameters • Growth assessment
	Child development (1)	1	Dr. Ahmed Khalil	To know the four field of development (gross motor ,fine motor & vision ,hearing &speech and social) during first year of life • Neonatal period • 1st month • At 2 month • At 3 month • At 4 month • At 7 month • At 10 month • At 12 month
	Child development (2)	1	Dr. Ahmed Khalil	To discuss the following topics A: The four field of development (gross motor ,fine motor & vision ,hearing &speech and social) during the following ages • 15 month • 18 month • 2 years • 2 ½ years • 3 years • 4 years

				• 5 years B:Evaluating school readiness C:General principles of assessment D;Adolescence & puberty
	: terminology &Neonatal Examination	1	Dr. Musaab Mazin	• Know the definition of important terms in Neonatology • How to do full neonatal examination • How to deal with different lesions found during neonatal exam. • How to do neonatal reflexes
	Neonatal resuscitation& preterm, IUGR, Large for G.A	1	Dr. Musaab Mazin	• How to do neonatal resuscitation • Definition of preterm & low birth weight. • Causes & problems associated with prematurity. • Factors associated with IUGR • Large for gestational age
	Birth injury &Birth asphyxia	1	Dr. Musaab Mazin	• Birth injury & its important types. • Neonatal seizure & its differential dx. • Intraventricular hemorrhage &peri ventricular leukomalacia • Hypoxic ischemic encephalopathy
	: metabolic disorder in Neonate	1	Dr. Musaab Mazin	To discuss the following topics • What is Hypothermia? Main line of management • Hypoglycemia, causes& management • Infant of DM mother its complications • Hypocalcemia, causes &management
	Respiratory distress syndrome	1	Dr. Musaab Mazin	• Main risk factor • Clinical feature, prevention • What are the main complications &its management
	Respiratory disorder in Neonate	1	Dr. Musaab Mazin	To discuss the following topics • Definition of apnea ,clinical feature, how you manage it • Transient tachypnea of newborn, risk factors &management

				• Meconium aspiration syndrome, prevention &management • Definition of NEC, line of management
	Neonatal Jaundice	1	Dr. Musaab Mazin	• Students should know different types of N. Jaundice • Their main lines of management
	Kernicterus	1	Dr. Musaab Mazin	• Student should know its clinical feature • Presentation of kernicterus • Student should know about phototherapy &exchange transfusion, and there complications • Obstructive jaundice &its causes
	Neonatal sepsis, TORCHS infection	1	Dr. Musaab Mazin	• Student should know what are the different types of N. Sepsis, the lines of treatment • What are TORCHS? Different clinical feature of them, DX, and management
	Childhood immunization	1	Dr. Iman Isam	• To know the Iraqi immunization schedule • To understand the details of each vaccine(type, route, dose, side effects and contraindications) • To understand what to check before giving a vaccine
	Human Genetics& Dysmorphology: part 1	1	Dr. Iman Isam	• Introduction to genetics and genomics • Single gene disorders • Autosomal Dominant inheritance(Achondroplasia Marfan Syndrome) • Autosomal Recessive inheritance • X-linked recessive Inheritance
	Human Genetics& Dysmorphology: part 2	1	Dr. Iman Isam	• Chromosomal disorders (Turner Syndrome. Down Syndrome. Edwards' syndrome. Patau's syndrome • Multifactorial Inheritance
	Gastroenteritis: part 1	1	Dr. Nashwan Al-Hafidh	By the end of this lecture ,the student will • Define Diarrhea? • Comment on the assessment of a

				child with diarrhea • What are the etiology of acute diarrhea? • Comment on causes of bloody diarrhea • Comment on the risk factors for gastroenteritis in children • Why Infants are at particular risk of dehydration? • Comment on clinical manifestation of viral gastroenteritis • Comment on clinical manifestation of bacterial gastroenteritis • Comment on clinical manifestation of parasitic gastroenteritis • Comment on investigation of a child with gastroenteritis • Comment on differential diagnosis of a child with gastroenteritis
	Gastroenteritis: part 2	1	Dr. Nashwan Al-Hafidh	By the end of this lecture ,the student will • Asses type of dehydration and plan the management. • Clinically determine the etiology of diarrhea. • Recognize the complications of G.E • List the preventive measures for G.E
	Infantile colic, GER	1	Dr. Nashwan Al-Hafidh	By the end of this lecture ,the student will • Define infantile colic? • What are the causes of infantile colic? • Comment on the clinical features of infantile colic • Comment on differential diagnosis of infantile colic • Outline the treatment of infantile colic • Comment on Techniques for calming infants of Dr. Harvey Karp • Comment on prevention of colic

				• Define gastroesophageal reflux (GER)? • What are the factors that involved in physiologic GER? • What are the criteria for physiologic GER? • What are the criteria for pathological GER? • How do you diagnose a physiologic GER? • Comment on treatment of uncomplicated GER • Comment on medical treatment of complicated GER • Comment on surgical treatment of complicated GER • Comment on prognosis of physiologic GER
	Chronic diarrhea	1	Dr. Nashwan Al-Hafidh	By the end of this lecture ,the student will • Define celiac disease? • Comment on the pathogenesis of celiac disease • What are the clinical presentation of celiac disease? • Comment on Screening of celiac disease • Comment on the Diagnosis of celiac disease • Comment on Treatment of celiac disease • Comment on prognosis of celiac disease • Comment on clinical manifestation of lactose intolerance • Comment on Diagnosis of lactose intolerance • Comment on Treatment of lactose intolerance • Comment on clinical manifestation of Cow milk protein intolerance • Comment on Diagnosis of Cow milk protein intolerance • Comment on Treatment of Cow

				milk protein intolerance • Comment on clinical manifestation of Toddler diarrhea • Comment on Treatment of Toddler diarrhea
	Constipation	1	Dr. Nashwan Al-Hafidh	By the end of this lecture ,the student will • Define Constipation? • What are the diagnostic criteria for functional constipation? • Comment on the potential alarm features in constipation • What are the causes of functional constipation? • Comment on the clinical features of functional constipation? • Comment on differential diagnosis of functional constipation • Outline the treatment of functional constipation • Comment on few specific causes of constipation (non - functional constipation)
	Inborn error of metabolism 1	1	Dr. Iman Isam	To discuss the following topics Clinical presentation of IEM, diagnosis and main line of treatment of Phenylketonuria Homocystinuria Galactosemia
	Inborn error of metabolism 2	1	Dr. Iman Isam	To discuss the following topics Clinical presentation of IEM,diagnosis and main line of treatment of Glycogen storage diseases (Von Gierke Disease, Pompe disease) Mucopolysaccharidoses(Hurler disease, Hunter disease) Wilson disease
	Common cold Acute pharyngitis and tonsillitis	1	Dr. Ahmed Khalil	To know the diagnosis and treatment of Common cold To outline the management of Acute pharyngitis and tonsillitis
	Croup, Acute	1	Dr. Ahmed	• To compare between Croup and

	epiglottitis, Laryngomalacia, Foreign bodies in the airway		Khalil	Acute epiglottitis regarding symptoms, diagnosis and treatment. • What is the laryngomalacia? • How to deal with a child with foreign body aspiration?
	Acute bronchiolitis, Community acquired pneumonia	1	Dr. Ahmed Khalil	• To know the diagnosis and treatment of Acute bronchiolitis • To outline the management community acquired pneumonia
	Asthma in children, Status asthmaticus	1	Dr. Ahmed Khalil	• To outline the Asthma in children • How to manage a patient with status asthmaticus
	Cystic fibrosis	1	Dr. Ahmed Khalil	• To discuss epidemiology, pathophysiology, diagnosis, treatment and main complications of Cystic fibrosis.
	Common childhood rashes	1	Dr. Aseel sami	• To have good idea about etiology, epidemiology, clinical features, complications, diagnosis, treatment, prognosis & prevention of measles, rubella, varicella, erythema infectiosum, rosella infantum & scarlet fever
	Meningitis & encephalitis:	1	Dr. Aseel sami	• To Know about etiology, epidemiology, clinical features, complications, diagnosis, treatment, prognosis & prevention of meningitis & encephalitis
	Mumps, pertussis, diphtheria:	1	Dr. Aseel sami	• To have good knowledge on etiology, epidemiology, clinical features, complications, diagnosis, treatment, prognosis & prevention of mumps, pertussis & diphtheria
	Polio, tetanus, Kala-azar	1	Dr. Aseel sami	• To have good idea about etiology, epidemiology, clinical features, complications, diagnosis, treatment, prognosis & prevention of tetanus, poliomyelitis & Kala-azar
	Acute renal failure	1	Dr. Bashar Shakir	To discuss acute renal failure and how kidney is functioning By the end of the lecture the student can : • Describe the etiology &categories of ARF • Understand principles of management of ARF

				• Identify appropriate investigations
	Complications of ARF	1	Dr. Bashar Shakir	• Knowledge of indications for dialysis • Awareness of complications and there managements • Management of hyperkalemia (common complication)
	Acute nephritis	1	Dr. Bashar Shakir	• To make an approach for a child with hematuria. • To discuss Acute Post streptococcal Glomerulonephritis regarding to • Etiology • Clinical manifestations and diagnosis • Management and complications
	Henoch-Schönlein purpura and Hemolytic-Uremic Syndrome & Urinary tract infection	1	Dr. Bashar Shakir	By the end of the lecture the student can : • Awareness about Henoch-Schönlein purpura and Hemolytic-Uremic Syndrome . • 2.-Describe the etiology & Understand clinical manifestations of UTI in relation to age. • -Understand principles of appropriate investigations and management of UTI
	Congenital anomalies of CNS	1	Dr. Ali Adel	Congenital anomalies of CNS (Neural tube defects) • Review of the normal development of CNS • Review of the types , prevention and prenatal screening of neural tube defects. • Microcephaly: definition, etiology and clinical approach • Macrocephaly: definition, etiology and clinical approach • Hydrocephalus: definition, etiology, types, clinical presentation, investigation and treatment.
	Cerebral palsy	1	Dr. Ali Adel	• Definition of cerebral palsy. • Etiology. • Classifications of cerebral palsy. • Types.

				• Investigations. • Treatment strategies.
	Seizure in childhood	1	Dr. Ali Adel	• Definition of Epilepsy. • Classification of epileptic seizures • An overview of : Partial seizures, Generalized seizures, Rolandic epilepsy , Absence ,Generalized tonic-clonic Myoclonic epilepsy,Infantile spasm ,Febrile convulsions, Neonatal convulsions , Status epilepticus.
	Neurocutaneous disorders	1	Dr. Ali Adel	• An overview of the etiology, clinical features, complications, investigations and treatment of Neurofibromatosis . • An overview of the etiology, clinical features, complications, investigations and treatment of Tuberous sclerosis. • An overview of the etiology, clinical features, complications, investigations and treatment of Sturge-Weber Syndrome.
	Floppy infant syndrome	1	Dr. Ali Adel	• Etiology • classification : diseases of upper motor neuron lesions and diseases of lower motor neuron lesions • Spinal Muscular Atrophy : definition, etiology, types, clinical presentation, investigation and treatment. • Guillain-Barre Syndrome: overview, etiology, clinical presentation, investigation and treatment. • An overview of neuromuscular disease : myasthenia gravis, Neonatal myasthenia gravis, Muscle diseases ,Duchene muscular dystrophy ,Juvenile dermatomyositis ,Metabolic Myopathies.
	Anemia	1	Dr. Yusra Ahmed	By the end of this lecture, the student supposed to be able to: • Define anemia according to the normal range. • Know etiological classification of anemia. • Differentiate between congenital hypoplastic anemia and TEC.

				• Recognize the underlying causes of anemia of chronic diseases. • Evaluate physiological anemia of infancy and differentiating it • between premature and full term baby. • Diagnose and treat main types of megaloblastic anemia.
	Iron Deficiency Anemia	1	Dr. Yusra Ahmed	• 1-Know the most common type of anemia. • 2- Determine the causes of iron deficiency anemia. • 3- Recognize the clinical feature of iron deficiency anemia. • 4- Differentiate laboratory findings of hypochromic microcytic anemia. • 5- Treat and follow up a patient with iron deficiency anemia
	Hemolytic Anemia	1	Dr. Yusra Ahmed	1- Define hemolytic anemia. • 2- Classify hemolytic anemia according to the etiology. • 3- Interpret the laboratory investigations that are required for diagnosis. • 4-Know the mode of inheritance and genetic counseling for inherited disease. • 5- Diagnose spherocytosis from (history, clinical and lab. Investigation). • 6- Treat spherocytosis and know the indications for splenectomy. • 7- Differentiate between clinical presentation and laboratory finding of G6PD deficiency and other hemolytic anemia.
	Hemoglobinopathies	1	Dr. Yusra Ahmed	• 1- Know the pathogenesis of hemoglobinopathies. • 2- Differentiate between sickle cell disease and thalassemia. • 3- Know the diagnostic test (Hb variant) for hemoglobinopathies. • 4- Treat different types of hemoglobinopathies accordingly.

	Bleeding Disorders	1	Dr. Yusra Ahmed	• 1- Know clinical and laboratory evaluation of hemostatic disorder. • 2- Use blood and blood product. • 3- Select ABO-Compatible blood product. • 4- Safely transfuse a blood to patients. • 5- Know different types of hemophilia and mode of inheritance. • 6- Differentiate between many types of bleeding disorders. • 7- Interpret the laboratory findings for common bleeding disorders. • 8- Able to decide doing bone marrow examination and splenectomy. • 9- Treat hemophilia using the early and prophylactic regimen. • 10- Treat other types of bleeding disorders.
	Leukemia	1	Dr. Yusra Ahmed	• 1- Know what are the predisposing factors for childhood malignancy. • 2- Know what are the sign of childhood cancers. • 3- Explain why proliferation of leukemic cells contribute to clinical • manifestations of leukemia. • 4- Describe the organ / system of origin, the typical signs and symptoms. • 5- Recognize the importance of a bone marrow aspiration or biopsy. • 6- Know approaches to establish a diagnosis and initial management.
	Childhood Lymphoma	1	Dr. Yusra Ahmed	• 1- Know the pathogenesis of lymphoma. • 2- Be able to do staging of lymphoma. • 3- Classify lymphoma as Hodgkin Lymphoma and Non-Hodgkin Lymphoma. • 4- Know how to diagnose and treat lymphoma.
	Solid Tumor	1	Dr. Yusra Ahmed	• 1- Know the important points in diagnosis and management of brain tumor.

				• 2- Be able to know different types of brain tumor. • 3- Diagnose, classify, stage and treat Wilms Tumor (Nephroblastoma). • 4- Know how to diagnose and treat Neuroblastoma.
	Congenital hypothyroidism	1	Dr. Bashar Shakir	• To discuss congenital hypothyroidism and how thyroid functioning • By the end of the lecture the student can : • Describe the etiology &categories of congenital hypothyroidism • Understand the principles and clinical manifestations congenital hypothyroidism • Identification of appropriate investigations • Their management and follow up. • Descriptions of short stature: causes and management.
	Diabetic mellitus	1	Dr. Bashar Shakir	• To discuss Diabetic mellitus and the pathophysiology. • By the end of the lecture the student can : • Describe the etiology &classification of Diabetic mellitus • Understand clinical manifestations Diabetic mellitus • Identification of appropriate investigations and diagnosis. • Their management and follow up.
	Diabetic ketoacidosis.	1	Dr. Bashar Shakir	• To discuss complications of Diabetic mellitus • The pathophysiology and etiology of Diabetic ketoacidosis • Clinical manifestations and management.
	Acyanotic CHD PART 1	1	Dr. Khalil Ibrahim	• Compare antenatal and post natal circulations • Outline the impact of congenital heart diseases • Summarize ASD and VSD

	Acyanotic CHD PART 2	1	Dr. Khalil Ibrahim	• Summarizes VSD and PDA • To describe left obstructive and right obstructive lesions • To understand the pathophysiology of Eisenmenger syndrome.
	Cyanotic CHD (part 1)	1	Dr. Khalil Ibrahim	• Summarizes VSD and PDA • To describe left obstructive and right obstructive lesions • To understand the pathophysiology of Eisenmenger syndrome.
	Cyanotic CHD (part 2)	1	Dr. Khalil Ibrahim	• To discuss Fallot tetralogy and TGA. • To outline the complications of cyanotic CHD
	Acquired heart diseases	1	Dr. Khalil Ibrahim	• To know how to disgnose and manage rheumatic fever. • To compare between different types of cardiomyopathies
	Heart failure	1	Dr. Khalil Ibrahim	• To study the causes of HF • To make a plan for the diagnosis and management of HF.
	Poisoning	1	Dr. Aseel sami	• To know about diagnosis, complications & treatment of Paracetol poisoning, Kerosene, caustic & iron poisoning.
	Behavioral disorders	1	Dr. Aseel sami	To discuss causes, diagnosis & treatment of Nocturnal enuresis, encopresis, breath holding spells & pica

7.Instructional objectives of the clinical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	Clinical sessions	6	All teachers	At the end of the training period, the student should be able to: • Practice of Communication skills • Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses • To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

8.Tables of the Course

- جداول التدريب النظري والعملي والسريري

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة الخامسة

للعام الدراسي ٢٠٢٣ - ٢٠٢٤

الشهر	9	9	10	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
اليوم	20	27	4	11	18	25	1	8	15	22	29	6	12	20	27	3	10	17	24	31	7	14	21	28	6	13	20	27	3	10	17	24	1	8	17	24	1	8
1	عصبية	اطفال	نسائية	كسور	بولية																																	
2	اطفال	عصبية	كسور	نسائية	جلدية																																	
3	نفسية	اشعة	جلدية	عصبية	اطفال	نسائية																																
4	ENT	نفسية	اشعة	عصبية	اطفال	عيون																																
5	مفاصل	ENT	عيون	اشعة	جلدية	نفسية	عصبية																															
6	بولية	مفاصل	نفسية	عيون	اشعة	جلدية	ENT																															
7	كسور	بولية	مفاصل	ENT	عيون	نفسية																																
8	نسائية	كسور	بولية	مفاصل	ENT	اشعة																																

امتحانات نصف السنة والعطلة الربيعية

9.Learning Resources

References

Nelson textbook of pediatrics (2020)

Essential of nelson textbook (2023)

Pub med

10.Additional Information

Contact: Aseel.noooh@uoninevah.edu.iq

Location: فرع طب الأطفال

11.Appendix

2. **Assessment paper of long case clinical examination**
3. **Student base learning picture**
4. **Clinical course objective, tutor and teaching hospital location**

جامعة نينوى –كلية الطب- فرع طب الاطفال

Long case assessment (5th year)

No	Student name	Com Skills and student behavior	History is presented in chronological way	History items covered and analyzed well	Asking specific questions related to the case	Proper examination technique	Detecting and describing findings well	Total
		10	**10**	**20**	**20**	**20**	**20**	**100**
1								
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Examiner (1)

Examiner (2)

Student base learning

جدول التدريس العملي الاسبوعي

المرحلة		الاحد ٥/٧	الاثنين ٥/٨	الثلاثاء ٥/٩	الاربعاء ٥/١٠	الخميس ٥/١١
السادس	المكان	الكلية	المستشفى	الكلية		
	التدريسي	د. اسيل سامي	د. يسرى احمد (مركز الثلاسيميا) د. شيماء محمد (وحدة الاورام)			
	objective	Tutorial (Poisoning)	Thalassemia & Oncology	مناقشة السمنارات		
الخامس					د. بكر صديق (م. الخنساء) Abdominal examination + Signs of meningeal irritation & examination of floppy infant	د. احمد خليل د. بكر صديق (م. الخنساء) Exam

ENT for the fifth year

1.General Information:

- **Subject:** ENT
- **Code**: (533)
- **Credit hours**: 3(30 theortical hours+ 40 practical hours).
- **Course Language**: English.

2.Syllabus:

1. **Nose:**
    - Anatomy and physiology
    - Inflammatory conditions and Allergic rhinitis
    - Nasal polyps
    - Acute sinusitis
    - chronic sinusitis
    - Tumors of nose and paranasal sinuses
    - Disorders of smell
    - Epistaxis
    - Trauma to the nose
    - Diseases of nasal septum
    - Foreign body of the nose
    - Rhinoliths
    - CSF rhinorrhoea
    - Choanal atresia

2. **Pharynx:**
    - Anatomy and physiology
    - Common disorders of oral cavity
    - Acute and chronic pharyngitis.
    - Adenoid hypertrophy
    - Tonsillitis and Tonsillectomy
    - Infection of the Pharyngeal Spaces
    - Paralysis of the palate and pharynx
    - Juvenile Nasopharyngeal Angiofibroma
    - Nasopharyngeal Carcinoma
3. **Larynx:**
    - Anatomy and physiology

- Investigations of laryngeal diseases
- Hoarseness; causes and management
- Stridor; causes and management
- Approach to stridulous child
- Tracheostomy

4. Ear:

- Anatomy and physiology
- Symptoms of ear diseases
- Assessment of hearing
- Assessment of vestibular function
- Diseases of External Ear
- Diseases of Middle Ear
- Diseases of Inner Ear

3.Learning Objective:

- **Knowledge**

1- Make the student aware of ear, nose and throat diseases, especially the common ones.
2- Teaching the students the diagnostic and therapeutic methods of ear, nose and throat diseases.
3- Enabling the student to deal with emergency situations that affect adults and children in this field.
4- Giving the student the basic principles in diagnosing hearing impairment in patients by conducting some common audiological tests.

Skills

1- History taking.
2- Clinical examination of the ear nose and throats.
3- Manipulation of instruments used in ENT examination.
4- Audiological tests (Pure tone audiometry and tympanometry).

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of diseases of ear nose and throat.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in management of ear, nose and throat diseases.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of ENT assessments by using special diagnostic instruments and observing and sharing , when possible, some minor surgical procedures like drainage of quinsy, management of epistaxis and removal of foreign body in the ear, nose or throat
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of ENT conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development.

5.Course Overview

- **The course is composed of two parts as follow:**

1. *Theoretical Part. 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: one hour per week
  - Total: 30 hours per academic year

  For the practical part:

- Two week course per academic year (total hours are 40 hours).

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: Teaching hospitals >

Format:

- For the theoretical part

- Tutor-Centered
  - *For the practical part.*
- Outpatient's training
- Clinical Tutorials
- Simulation Training

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, writing reports on special subjects.
- **Summative Assessments**: Midterm exams, end term exams and OSCE at the end of training period for each group.
- **Continuous Feedback**: Provided throughout the course

Components of Assessment:

- Written Exams (80% of total grade)
- Objective Structured Clinical Examination (OSCE) (20% of total grade)

-*Detailed Breakdown*

❖ **Written Exams (80%)**:

- Midterm Exam: 20% (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
- End term Exam: 60% (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)

❖ **Objective Structured Clinical Examination (OSCE) (20%)**:

This is a written exam performed in one of the college halls where the students of the group answer the questions shown on 10 slides on data show which contain clinical conditions, methods of examination and instruments, with audiological assessments through short case scenarios on hearing loss. The time limit for answering each slide is 2 minutes.

-Pass/Fail Criteria

- **Pass Mark**: 50%

  Students must achieve a combined score of at least 50% from all components to pass the course.

Blueprint of final exam in ENT/ 1st trial.

No.	Subject	Remembering questions	Understanding questions	Problem solving questions
1	**Anatomy and physiology of the ear**	4		
2	**Diseases of the external ear**	3	2	**6**
3	**Diseases of the inner ear**	6	6	**4**
4	**Anatomy and physiology of the larynx**	1	2	
5	**Diseases of the larynx**	4	8	**3**
6	**Anatomy and physiology of the pharynx**		1	
7	**Anatomy and physiology of the nose**	2	1	
8	**Diseases of the nose and paranasal sinuses**	7	10	
9	**Otitis media**	7	5	**3**
10	**Tonsil and adenoid**	5	4	**1**
11	**Pharyngitis and tumors of the pharynx**	2	2	**1**
	Total = 100	41	41	**18**

6.Instructional Objective of the lectures:

No.	Lecture title	No. of lectures	Teaching Faculty	Lecture's objectives
	Topic	**No. of lectures**	**Teaching faculty**	**Instructional objectives**
1	Nasal anatomy	1	Dr. Emad Nadhem	Describe the anatomical boundaries of the nasal cavity including the septum, Name the bony structures that form the external nose, List the main structure draining into the lateral nasal wall, Describe the nerve and blood supply of the nasal cavity and its relation to epistaxis, Discuss the classification of paranasal sinuses and their boundaries.
2	Nasal physiology and symptomatology	1	Dr. Emad Nadhem	Describe the function of the nose and paranasal sinuses, Define the nasal cycle, distinguish between olfactory and respiratory mucosa Perform a differential diagnosis according to the nasal symptoms .
3	Ear anatomy	1	Dr. Saad Younus	Describe the clinical anatomy of external, middle and inner ear and facial nerve.
4	Ear physiology and symptomatology	1	Dr. Saad Younus	Discuss the physiological background of Hearing , Physiology of the internal ear, vestibular apparatus and role in equilibrium, Hearing and balance tests and Symptoms of ear

				disease.
5	Anatomy and physiology of the pharynx.	1	Dr. Saad Younus	Describe divisions of the pharynx , the pharyngeal wall and Killian's Dehiscence. Discuss Waldeyer's ring. Talk about Palatine tonsils. Describe the anatomical boundaries and contents of Retropharyngeal space (Space of Gillette) and Parapharyngeal Space. Discuss the functions of the pharynx.
6	Anatomy and physiology of the larynx	1	Dr. Saad Younus	Describe the basic anatomy and histology of the larynx, laryngeal compartments, and the differences between paediatric and adult larynx. Enumerate the functions of the larynx.
7	Laryngeal diseases (Part 1)	1	Dr. Saad Younus	Discuss the cardinal symptoms and investigations of laryngeal disease . Define hoarseness and discuss its causes.
8	Laryngeal diseases (Part 2)	1	Dr. Saad Younus	Discuss the causes and management of stridor. Describe the clinical approach to stridulous child.
9	Tracheostomy	1	Dr. Saad Younus	Define tracheostomy and discuss briefly surgical anatomy of the neck. Describe the functions of tracheostomy. Discuss the types of tracheostomy and surgical technique. Describe the types of tracheostomy tubes. Discuss the post-operative care in tracheostomy and complications of tracheostomy. Explain the differences between endotracheal intubation and tracheostomy.
10	Diseases of the external ear (part 1)	1	Dr. Saad Younus	Mention the congenital anomalies of ext. ear. Discuss trauma, inflammatory diseases and tumors of pinna, management of impacted wax, keratosis obturans, and

				foreign body in the ear.
11	Diseases of the external ear (part 2)		Dr. Saad Younus	Discuss Inflammatory condition and benign and malignant neoplasms of external ear.
12	Nasal trauma and foreign bodies		Dr. Emad Nadhem	Develop a basic approach for different types of nasal trauma including nasal fracture and nasal foreign bodies , Define oroantral fistula, Discuss the causes and treatment options for CSF rhinorrhea..
13	Epistaxis		Dr. Emad Nadhem	Perform a differential diagnosis for the possible causes of epistaxis (local VS systemic), Describe the medical and surgical treatment options for recurrent epistaxis.
14	Inflammation of the nose and paranasal sinuses		Dr. Emad Nadhem	Define acute and chronic rhinosinusitis, Name the three most common microorganism responsible for acute sinusitis , Explain the standard treatment options for acute and chronic sinusitis
15	Complications of rhinosinusitis		Dr. Emad Nadhem	Describe the clinical classification of sinusitis complications, Enumerate the orbital complications and treatment options , Define pott's puffy tumor, mucocele and pyocele.
16	Allergy and nasal polyps		Dr. Emad Nadhem	Understand the basic mechanism of allergic rhinitis, Differentiate allergic rhinitis from non-allergic and vasomotor rhinitis, Explain the difference between the two main types of nasal polyps (ethmoidal VS antrochoanal) regarding the etiology , clinical finding and treatment options,
17	Tumors of the nose and paranasal		Dr. Emad Nadhem	Mention the common features of benign and malignant nasal tumors, Perform a differential diagnosis and discuss a diagnostic work up plans and treatment

	sinuses			options for patient with possible nasal tumor.
18	Tonsil and adenoid		Dr. Emad Nadhem	Describe the classical presentations of acute tonsillitis, Define adenoid facies, Identify the indications, contraindications and complications of tonsillectomy and adenoidectomy
19	Pharyngitis		Dr. Emad Nadhem	Define acute and chronic pharyngitis ,Enumerate the predisposing factors for chronic pharyngitis, Define plummer vinson syndrome triad.
20	Pharyngeal suppurations		Dr. Emad Nadhem	Classify pharyngeal suppurations , Define peritonsillar abscess (Quinsy), retropharyngeal and parapharyngeal abscess, perform a basic approach for patient with pharyngeal suppurations.
21	Tumors of the pharynx		Dr. Emad Nadhem	Describe the clinical presentation of nasopharyngeal angiofibroma and nasopharyngeal carcinoma ,Identify the risk factors for nasopharyngeal carcinoma, Discuss the diagnostic work up and treatment options for both benign and malignant nasopharyngeal tumors.
22	Otitis media: acute otitis media	1	Dr. Emad Nadhem	Define acute otitis media, List the risk factors for recurrent otitis media, Explain the progression of acute otitis media at anatomical level, Enumerate the common responsible microorganism , Develop a basic treatment plan, Mention the sequelae of acute otitis media.
23	Otitis media: Chronic otitis media	1	Dr. Emad Nadhem	List the predisposing factors for chronic otitis media , Define secretory otitis media and mention the required diagnostic and treatment options, Explain the clinical

				difference between tubotympanic and atticoantral suppurative otitis media,
24	Otitis media: Complications	1	Dr. Emad Nadhem	Enumerate the intracranial complications of otitis media , Define acute mastoiditis , Mention the classical presentation and treatment options, Discuss otogenic facial paralysis.
25	Diseases of the inner ear (part 1)	1	Dr. Saad Younus	Describe the differences between hearing aid and cochlear implant and how to manage hearing loss due to inner ear pathology. Mention the types and clinical features of Fracture base of skull. Mention the drugs that has ototoxic effects, Discuss the types and causes of tinnitus.
26	Diseases of the inner ear (part 2)	1	Dr. Saad Younus	Discuss the causes and management of vertigo, types of nystagmus, how to differentiate between peripheral and central causes of vertigo, and which conditions are associated with both hearing loss and vertigo.

7. Instructional objectives of the clinical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	History taking in ENT and Examination of the ear	1	Dr. Saad Younus	• Discuss detailed patient information related to ear, nose, and throat (ENT) issues in order to accurately diagnose conditions • Perform the steps of ear examination and uses of special diagnostic instruments
2	Audiological tests	1	Dr. Saad Younus	Analyze the results of basic audiological tests namely pure tone audiometry and tympanometry.
3	Examination of nose	1	Dr. Emad Nadhem	Perform the steps of nose examination and uses of special diagnostic instruments
4	Examination of larynx and pharynx	1	Dr. Emad Nadhem	Perform the steps of pharynx and larynx examination and uses of special diagnostic instruments

8.Tables of the Course

- جداول التدريب النظري والعملي والسريري

يكون التدريب النظري في احدى القاعات الدراسية يوم الثلاثاء من كل اسبوع من الساعة العاشرة والنصف الى الساعة الحادية عشر والنصف أما التدريب السريري فيكون في مستشفى السلام التعليمي من الساعة الثامنة والنصف الى الساعة الواحدة والصف يومي الأربعاء (د. سعد يونس) والخميس (د. عماد ناظم)

9.Learning Resources

Textbook	Hall & Colman's Diseases of the Ear , Nose and Throat
References	. * Ear, Nose and Throat Diseases A Pocket Reference. Edited by Richard A Buckingham. * Disease of the Nose, Throat and Ear Edited by A.G.D. Maran. * Otolaryngology: The Essentials. Edited by Allen M.Seiden, M.D. * Scott-Brown's Otolaryngology. Six volumes. General Editors Alan G. Kerr.

10.Additional Information

Contact:

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Location: فرع الجراحة

Ophthalmology for the fifth year

1.General Information:

- **Subject**: ophthalmology
- **Code**: (534)
- **Credit hours**: 3 units(30 theortical hours+ 40 practical hours).
- **Course Language**: English.

2.Syllabus:

1. Introduction to Ophthalmology:

- Functions of the eye
- Three steps of vision
- Importance of binocular vision
- External features of the eye
- Brief overview of ocular anatomy, histology, and physiology

2. Systematic Approach to Eye Disease:

- Knowledge of investigations and ophthalmic instruments
- Anatomy of the eyelid
- Identification of clinical signs and treatment of specific eyelid diseases
- Distinguishing clinical features of congenital diseases
- Management of dry eye and its underlying causes

3. Conjunctival Disorders:

- Anatomy and management of conjunctival infections
- Control and prevention of ophthalmia neonatorum
- Approach to trachoma
- Conjunctival degeneration and tumors

4. Corneal Diseases:

- Anatomy, histology, and physiology of the cornea
- Management of bacterial keratitis
- Approach to herpetic keratitis
- Presentation and treatment of keratoconus
- Differentiation between episcleritis and scleritis

5. Lacrimal System:

- Anatomy and physiology of the nasolacrimal system
- Management of congenital nasolacrimal obstruction
- Surgery for nasolacrimal duct obstruction

6. Lens Disorders:

- Anatomy and physiology of the lens
- Congenital lens disorders
- Diagnosis and management of cataracts
- Surgical skills for cataract removal

7. Glaucoma:

- Definition and classification of glaucoma
- Physiology of aqueous humor dynamics and intraocular pressure control
- Clinical features, evaluation, and treatment of primary open-angle glaucoma and normal tension glaucoma
- Mechanisms and pathophysiology of primary angle-closure glaucoma
- Pathophysiology and therapy for primary congenital and juvenile-onset glaucoma

8. Uveal Diseases:

- Anatomy and function of the uvea

- Types and treatment of anterior uveitis
- Management of posterior uveitis and its complications
- Common infectious uveitis

9. Extraocular Muscles and Strabismus:

- Anatomy of extraocular muscles
- Types and treatment of amblyopia
- Definition and types of strabismus
- Workup for esotropia and exotropia

10. Retinal Disorders:

- Basic structure and function of the retina
- Classification and management of diabetic retinopathy
- Types and approach to vascular occlusive diseases
- Definition, types, and management of retinal detachment

11. Orbital Disorders:

- Anatomy of the bony orbit
- Thyroid eye disease
- Orbital infections and trauma

12. Neuro-ophthalmology:

- Symptom-driven approach to neuro-ophthalmic conditions
- Eye movement disorders and their relationship to the ocular motor system
- Pupil, eyelid position, and ocular motor pathology in relation to specific diseases

13. Ocular Oncology:

- Ocular surface tumors
- Definition, risks, and management of retinoblastoma

- Management of choroidal melanoma
- Secondary ocular tumors
- Overview of chemotherapy modalities

14. Systemic Disease and the Eye:

- Correlation of systemic diseases and medications with ocular health
- Types of ocular trauma and sequelae
- Types and indications of laser applications
- Effects of systemic and topical drugs on the eye
- Recent management techniques and tools in ophthalmology

15. Additional Topics:

- Differentiation between episcleritis and scleritis
- Anatomy and approach to vitreous pathology

3.Learning Objective:

Knowledge

By the end of this course ,students should be able to be familial with ophthalmological diseases & to know the basic principle in evaluating patient with diseases related to eye and its relation

Skills

- **Clinical Examination**: Students will perform comprehensive ophthalmic physical examinations and demonstrate effective comunication skills.
- **Communication**: Students will demonstrate effective communication skills with children of different ages and their families.
- **Procedures**: Students will competently perform basic ophthalmic procedures such as measuring intraocular pressure.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with ophthalmic cases.

- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. Outcomes for Educational Program

Knowledge:

1. **Understanding Eye Functions and Anatomy:**
    - Comprehend the functions of the eye and the steps of vision.
    - Understand the external features and brief anatomy, histology, and physiology of the eye.
2. **Systematic Approach to Eye Disease:**
    - Learn the systematic approach to diagnosing and treating eye diseases.
    - Understand the anatomy and common diseases of the eyelid, conjunctiva, cornea, lens, and retina.
    - Gain knowledge of glaucoma, uveal diseases, strabismus, and ocular oncology.
3. **Historical and Modern Medical Practices:**
    - Understand the historical evolution of ophthalmology and significant medical advancements.
    - Familiarize with recent management techniques and tools in ophthalmology.
4. **Medical Terminology:**
    - Master medical terminology related to ophthalmology, including prefixes, suffixes, and roots of medical terms.

Skills:

1. **Clinical Assessment and Management:**
    - Develop skills in clinical assessment and management of eye diseases.
    - Perform diagnostic procedures and interpret investigation results.

- Execute surgical skills, particularly in cataract and nasolacrimal duct obstruction surgeries.

2. **Use of Ophthalmic Instruments:**
    - Proficiently use ophthalmic instruments for diagnosis and treatment.
    - Manage ocular surface tumors and complications from uveitis and other conditions.
3. **Communication and Critical Thinking:**
    - Enhance communication skills for patient interaction and education.
    - Cultivate critical thinking for analyzing complex ophthalmic cases and making informed decisions.

Attitude:

1. **Ethical and Professional Conduct:**
    - Foster a professional attitude towards patient care.
    - Adhere to ethical principles in the management of eye diseases and surgeries.
2. **Lifelong Learning and Adaptability:**
    - Encourage a commitment to lifelong learning and staying updated with advancements in ophthalmology.
    - Adapt to new technologies and methods in eye care.
3. **Patient-Centered Care:**
    - Promote patient-centered care with empathy and respect.
    - Emphasize the importance of patient education and involvement in their own care

5.Course Overview

- **The course is composed of two parts as follow:**

1.*Theoretical Part . 2. Practical part*

- **Duration**:
- **For the theoretical part:**
    - Weekly Hours: One hours per week all the academic year
    - Total: 30 hours per academic year
- **For the practical part:**

-Weekly Hours: 8 hours per week for each group

-Duration of a course for each group: 2 weeks course

-Total: 16 hours for each group in the academic year

- **Location**:

-For the theoretical part: Lecture Hall in the college campus

-For the practical part: Teaching hospitals at ophthalmology consultation clinic at Al- -Salam Hospital and college small group teaching hall.

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Evidence-based learning
- Case-Based Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching theoretical part :

The lecture is conducted by the lecturer in the lecture hall with the

commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.

2. Adopting the Google classroom approach, in downloading lectures

few days prior to date of lecture, also downloading pictures and

videos if needed, in order to assist the student in understanding

3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.

4. Supporting the lecture with educational techniques through the

computer and data display device.

5. Make a short **formative exam** at the end of each lecture on the topic of the

lecture. The examination has several forms including a few MCQ

displayed at the end of power point presentation, or case scenarios

and problem-solving questions delivered to the student orally or

through power point presentation

- ***<u>For the practical part.</u>***

- Small group teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching practical part :

During the clinical course, students will receive the following training:

8. Communication skills
9. History taking
10. Examination of whole eye

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
  - **<u>In the theoretical part</u>**

    -Make a short **formative examination** at the end of some lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation

    -Sending MCQ by google format

  - **<u>In the practical part</u>**

    Formative assessment of students during the course through history presentation, clinical examination and discussion

- **Summative Assessments**:

  -Theoretical: Midterm exams, end term exams

  -Practical: Slide examination

- **Continuous Feedback**: Provided throughout the course

-*Components of Assessment:*

- Written Exams (80% of total grade)
- Clinical Examination in slide form (20% of total grade)

-Detailed Breakdown

- **Written Exams (80%)**:

- Midterm Exam: 20% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs)

❖ End term Exam: 60% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs

❖ **Clinical Examination (20%)**:

- Clinical exams in campus small group hall at the end of two week of the clinical course
- Slide examination with short assay answers related to each slide.

-Pass/Fail Criteria

Pass Mark: 50%

- Students must achieve a combined score of at least 50% from all slides.

Blue print of final exam / 1st trial

system	Subjects	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	Remembering(direct questiond)	Understanding(indirect questions)	Appl./ Problem solving
Chest	Introduction to radiology	0.02	2.0	2	0	0
	• Normal chest x ray & basic views	0.02	2.0	2	0	0
	• Diffuse lung disease radiological features.	0.02	2.0	1	1	0
	• Parenchymal acinar lung disease, collapse & consolidation.	0.02	2.0	1	0	1
	• Various types of pulmonary tumors & way of evaluation.	0.02	2.0	1	1	0
	• Pleural disease, effusion, pneumothorax & pleural masses.	0.02	2.0	1	1	0
Mediast. & heartt	• Cardiomegaly & gross heart anomalies.	0.02	2.0	1	1	0
	• Radiology of Mediastinum .	0.02	2.0	0	2	0
Muscloskeletal	• Normal bone radiological appearance.	0.06	6.0	2	4	0
	• Radiological features of bone infection & differentials.	0.06	6.0	0	5	1
	• Feature of common bone disease, congenital &metabolic.	0.06	6.0	4	2	0
	• Common bone tumor & their	0.06	6.0	2	4	0
GIT radiology:	• Steps of contrast GIT procedures.	0.02	2.0	0	2	0
	• Normal esophagus appearance & its common diseases.	0.02	2.0	0	2	0
	• Stomach diseases & tumors.	0.02	2.0	1	1	0
	• Radiological features of small intestine & differentiation of its pathology.	0.02	2.0	0	1	1
	• Common colon pathology on native &	0.02	2.0	0	2	0
Urinary syste	• Anatomy of urinary system & steps of IVU	0.06	6.0	3	3	0
	• Diagnosing common renal system pathology including stones & tumors on various radiological modalities.	0.06	6.0	3	2	1
CT & MRI of bi	• Basics of CT scan & showing diagnostic	0.06	6.0	4	2	0
	• Basics & mechanism of MRI.	0.06	6.0	2	4	0
	• MRI medical uses & diagnosing common brain pathology.	0.06	6.0	2	3	1
Gyne and Ob	• Main US features of common reproductive system pathology	0.06	6.0	2	3	1
Radiation	• Important rules in radiation protection & their practical importance	0.06	6.0	6	0	0
Mamm	• Diagnose common breast tumor & screening purposes	0.02	2.0	1	1	0
Radio	• Mechanism & uses of radiation in treating various tumors	0.06	6.0	4	2	0
	Total	1	100.0	45	49	6

6.Instructionai Objectives of the lectures

No.	Topic	No of lectures	Teaching staff	Learning objectives
1	**Gross and Detailed Anatomy of the Eye**:	2	Dr. Bashar Ayad	1.Describe the gross and detailed anatomy of the Eye
2	**Physiology of the Eye, Optic Nerve, Adnexa, and Extraocular Muscles**:	2	Dr. Bashar Ayad	2. Explain the physiology of the different parts of the eye, optic nerve, adnexa and extraocular muscles.
3	**Basic Properties of the Optics of the Eye**:	2	Dr. Bashar Ayad	3. Illustrate the basic properties of the Optics of the eye
4	**Refractive Errors and Methods of Correction**:	2	Dr. Abdulrahman Mohmmed	4. Recognize the refractive errors and its methods of correction
5	**Principle, Types, and Uses of Laser in Different Eye Conditions**:	2	Dr. Abdulrahman Mohammed	5. Discuss the principle, types and uses of laser in different eye conditions
6	**Pathogenesis of Common Diseases Affecting the Eye and Adnexa**:	2	Dr. Mohammed Kahtan	6. Illustrate the pathogenesis of common diseases affecting the eye and the adenexa.
7	**Clinical Manifestations of Common Diseases Affecting the Eye and Adnexa**:	2	Dr. Mohammed Kahtan	7. Identify the clinical manifestations of common diseases affecting the eye and the adenexa.
8	**Most Appropriate and Cost-Effective Diagnostic Procedures**:	2	Dr. Abdulrahman Mohammed	8. Select the most appropriate and cost-effective diagnostic procedures for these problems
9	**Treatment of Common Eye Problems**:	2	Dr. Mohammed Kahtan	9. Identify and outline the treatment of these problems
10	**Ocular Manifestations of Systemic Diseases**:	2	Dr. Bashar Ayad	10. Recognize and describe ocular manifestations of systemic diseases
11	**Ocular Manifestations of Neurological Disorders**:	2	Dr. Bashar Ayad	11. Evaluate the ocular manifestations of neurological disorders
12	**Ocular Toxicology of Systemic Medications**:	2	Dr. Mohammed kahtan	12. Illustrate ocular manifestations of ocular toxicology of systemic medications

13	**Injuries of the Eye and Emergency Conditions**:	2	Dr. Mohammed Kahtan	13. Understand the basis of Injuries of the eye and able to deal with emergency conditions of the eye
14	**Ophthalmological procedures part1**	2	Dr. Abdulrahman Mohammed	14. Explain the surgical steps for basic ophthalmic procedures
15	**Ophthalmological procedures part12**	2	Dr. Abdulrahman Mohammed	15. Explain the surgical steps for basic ophthalmic procedures

7. Instructional Objectives of the clinical sessions

No.	Topic	No of sessions	Teaching staff	Learning objectives
1	Session 1: Clinical Examination Techniques	1	Dr. Bashar Ayad	1. **Perform proper clinical examination by using slit lamp** 2. **Assess the vision by using Snellen chart** 3. **Examine the posterior segment of the eye by using direct and indirect ophthalmoscope** 4. **Examine the pupillary reflexes** 5. **Examine the ocular motility**
2	Session 2: Ophthalmic Investigations and Interpretation	1	Dr. Abdulrahman Mohammed	1. **Interpret different ophthalmic investigations** 2. **Predict the nature, severity and prognosis of different eye diseases**
3	Session 3: Skills in Management of Eye Diseases	1	Dr. Mohammed Kahtan	1. **Demonstrate skills in management of different eye diseases** 2. **Generate a proper treatment plan**
4	Session 4: Clinical	1	Dr. Bashar	1. **Integrate the clinical**

	Integration and Diagnosis		Ayad	**findings from history, examination and investigations in an ophthalmic diagnosis**
5	Session 5: Surgical Principles and Ocular Surgery	1	Dr. Abdulrahman Mohammed	1. **Integrate general surgical principles with ocular surgery**
6	Session 6: Refractive and Optical Correction	1	Dr. Mohammed Kahtan	1. **Design a systematic approach for proper refractive and optical corrective methods**
7	Session 7: Doctor-Patient Relationship and Communication	1	Dr. Bashar Ayad	1. **Build a good doctor-patient relationship** 2. **Communicate ideas and argue effectively**
8	Session 8: Professionalism and Ethics in Ophthalmology	1	Dr. Abdulrahman Mohammed	1. **Demonstrate skills in the retrieval, preparation, analysis and interpretation of information from different sources** 2. **Work effectively both individually and in team** 3. **Recognize any ethical problems in relation to the topics and act accordingly** 4. **Acknowledge the importance of the patient's dignity and privacy**

9.Learning Resources

-Parson / ophthalmology

-KANSKI (CLINICAL OPHTHALMOLOGY)

-OPHTHALMOLOGY F0R UNDERGRADUATES

-BASIC AND CLINICAL SCIENCE COURSE (AAO)

-BASIC OPHTHALMOLOGY (AAO)

10.Additional Information

Contact:bashar.saeed@uoninevah.edu.iq

Location: surgery department

Dermatology for the fifth year

1.General Information:

- **Subject**: Dermatology
- **Code**: (535)
- **Credit hours**: 3 units (30 theoretical and 30 practical hours)
- **Course Language**: English.

2.Syllabus:

- Histology & physiology of skin
- Type of skin disease
- Dermatitis (atopic, seborrhoeic, nummular, stasis, contact, exfoliative, hand eczema and drug eruption)
- Cutaneous infection (fungal, Parasitic, Viral, Bacterial)
- Papulosquamous (psoriasis, lichen planus & pityriasis rosea)
- Acne & rosacea
- Dermatologic immunology (urticarial, angioedema & leukocytoclatic vasculitis)
- Drug eruption
- Vesiculo-bullous (pemphigus & dermatitis herpetiforme)
- Pigment disorders (vitiligo, melisma & other hypomelanotic disorders)
- Hair disorders
- Nail disorders
- Pruritus
- Connective tissue disorders
- Skin and systemic diseases
- Skin diseases due to physical agents
- **Genodermatosis**
- Skin tumors (Seborrhoeic keratosis, actinic keratosis, nevi, dermatofibroma, benign skin tumors, BCC, SCC, and melanoma)
- Sexually transmitted diseases

3.Learning Objective:

Knowledge

• Students will be able to describe the normal skin structure and physiology. They will be able to describe lesions and illicit important sign, and do some side lab investigation. students will identify signs and symptoms of common dermatological diseases (e.g., dermatitis, infections, papulosquamous disorders, pigmentaory disorders, allergic reaction, etc). They will understand the methods of diagnosing these diseases (e.g., physical sign and symptoms, laboratory tests). Students will learn about treatment options, preventive methods and potential complications associated with dermatological illnesses.

• **Evidence-Based Practice:** Students will be able to identify evidence-based guidelines and best practices in dermatology care.

- **lifelong learning**: Students will be encouraged for lifelong learning, by:
  - **Critical Thinking:**

Encourage students to question assumptions, analyze information, and evaluate evidence critically. Incorporate clinical case scenarios of the studied pateints , problem-solving exercises, and discussions that require thoughtful analysis.

  - **Independent Learning**:

Foster self-directed learning by providing resources such as updated textbooks, online courses, and research articles. Encourage students to explore topics beyond the curriculum and pursue their interests.

  - **Technology Integration:**

Using technology tools for learning, such as educational apps, and online platforms. Teach digital literacy skills, including effective internet searching and evaluating

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills

2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses

3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance analysis of laboratory and imaging studies

Skills:

Students will perform comprehensive dermatological physical examinations. And demonstrate effective communication skills.

Attitudes:

Students will exhibit empathy and compassion in their interactions with patients, demonstrate professional behavior, show cultural sensitivity and respect for diverse backgrounds.

lifelong learning:

Students will engage in lifelong learning and continuous professional development to stay current with advances in pediatric medicine

4. Outcomes for Educational Program

Knowledge:

- **Outcome1:** Students will be able to identify signs and symptoms of common skin diseases
- **Assessment:** Students will be assessed through formative and summative theoretical examinations

Skills:

- **Outcome 2:** Students will demonstrate proficiency in performing comprehensive dermatological examinations.
- **Outcome 3:** Students will competently perform basic dermatological procedures
- **Assessment:** Students will be assessed through formative and summative clinical examinations

Attitudes:

- **Outcome 4:** Students will demonstrate professionalism in their interactions with patients and families, demonstrate empathy and compassion when caring for dermatological patients and their families.
- **Assessment:** Students will be assessed through formative and summative clinical examinations regarding communication skills

Evidence-Based Practice:

- **Outcome**: Student will be proficient in identifying evidence-based guidelines and best practices in dermatological care.

Assessment: Students will critically evaluate clinical guidelines during theoretical analytic MCQ questions

Lifelong learning

- **Critical Thinking Enhancement**:
- **Outcome:** Graduates will demonstrate improved critical thinking skills by analyzing complex problems, evaluating evidence, and making informed decisions.
- **Assessment**: Students will participate in analysis of case scenarios in theoretical MCQ questions and also in clinical case-based discussions, debates, and critical analysis exercises.
- **Independent Learning Proficiency:**
- **Outcome:** Graduates will be adept at self-directed learning, seeking out relevant resources beyond the classroom.
- **Assessment:** Students will create personalized learning plans, explore additional readings, and engage in independent seminars and student researches
- **Digital Literacy Development:**
- **Outcome:** Graduates will effectively use technology for learning, research, and communication.
- **Assessment:** Students will demonstrate proficiency in online searching, evaluating sources, and using educational apps through engaging in independent seminars and student researches

Additional Considerations:

Feedback and Revision:

Gather feedback from students and instructors throughout the program.

Feedback delivered to students by the college regarding students' opinions of teaching staff and educational program

Use feedback to identify areas for improvement, update content, and revise teaching methods to continuously enhance the curriculum**.**

5.Course Overview

- The course is composed of two parts as follow:

1.*Theoretical Part . 2. Practical part*

- **Duration**: Academic year

For the theoretical part:

- Weekly Hours: One hours per week all the academic year
- Total: 30 hours per academic year

For the practical part:

Weekly Hours: 8 hours per week for each group

Duration of a course for each group: 2 weeks course

Total: 16 hours for each group in the academic year

- **Location**:

-For the theoretical part: Lecture Hall in the college campus

-For the practical part: Teaching hospitals at dermatology consultation clinic at Al- -Salam Hospital and college small group teaching hall.

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Evidence-based learning
- Case-Based Learning
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching theoretical part :

The lecture is conducted by the lecturer in the lecture hall with the commitment to the following:

1. Writing the objectives of the lecture at the beginning of each lecture.
2. Adopting the Google classroom approach, in downloading lectures few days prior to date of lecture, also downloading pictures and videos if needed, in order to assist the student in understanding
3. The necessity of the student's participation by motivating the student to discuss and present part of the lecture.
4. Supporting the lecture with educational techniques through the computer and data display device.
5. Make a short **formative exam** at the end of each lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation

-For the practical part.

- Small group teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Encourage lifelong learning : (by Encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

Methods of teaching practical part :

During the clinical course, students will receive the following training:

11. Communication skills
12. History taking
13. Examination of whole skin

Clinical objectives:

At the end of the training period, the student should be able to:

7. Practice of Communication skills
8. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses

9. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams

In the theoretical part

- Make a short **formative examination** at the end of some lecture on the topic of the lecture. The examination has several forms including a few MCQ displayed at the end of power point presentation, or case scenarios and problem-solving questions delivered to the student orally or through power point presentation
- Sending MCQ by google format

In the practical part

Formative assessment of students during the course through history presentation, clinical examination and discussion

- **Summative Assessments**:
- **Theoretical:** Midterm exams, end term exams
- **Practical:** Slide examination
- **Continuous Feedback**: Provided throughout the course

-Components of Assessment:

- Written Exams (80% of total grade)
- Clinical Examination in slide form (20% of total grade)

-Detailed Breakdown

- **Written Exams (80%)**:
  - Midterm Exam: 20% depending on blue print (Covers topics from the first half of the course, includes multiple-choice questions (MCQs)
- End term Exam: 60% depending on blue print (Comprehensive exam covering the entire course content, includes MCQs

❖ **Clinical Examination (20%)**:

- Clinical exams in campus small group hall at the end of two week of the clinical course
- Slide examination with short assay answers related to each slide.

Pass/ Fail criteria:

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all slides.
- **Continuous Assessment**

Blueprint for Dermatology

Group No.: .....3..... **College/ Department:** college of medicine/Ninevah universi

Unit/ Course/ Subject: .....written assessment exam for sexth stage(round2).

									Cognitive Skill			Ass. Tool		Total no. of items
	Unit LOs	mode of teachings	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Remembering(direct questiond)	Understanding(indirect questions)	Appl./ Problem solving	MCQ	EMQ	1
1	Histology & physiology of skin	L	1	1	1	0.011905	1.19047619	1	1	0	0	1	_	5
2	Type of skin disease	L	2	2	4	0.047619	4.76190476	5	3	2	0	5	_	11
3	Dermatitis (1)	L	3	3	9	0.107143	10.7142857	11	3	4	2	9	_	7
4	Dermatitis (2)	L	2	3	6	0.071429	7.14285714	7	4	3	0	7	_	13
5	Fungal infection of skin (1)	L	3	3	9	0.107143	10.7142857	11	4	5	2	11	_	5
6	Fungal infection of skin (2)	L	3	3	9	0.107143	10.7142857	11	2	1	1	4	_	7
7	Parasitic infestation of skin	L	2	3	6	0.071429	7.14285714	7	1	2	2	5	_	6
8	Viral infection of skin (1)	L	2	2	4	0.047619	4.76190476	5	2	2	1	5	_	6
9	Papulosquamous diseases (1)	L	2	2	4	0.047619	4.76190476	5	1	1	2	4	_	2
10	Papulosquamous diseases (2)	L	1	1	1	0.011905	1.19047619	1	2	0	0	2	_	3
11	Bacterial infection of skin	L	1	2	2	0.02381	2.38095238	2	1	0	1	2	_	0
12		L			######	#VALUE!	#VALUE!						_	11
13	Acne	L	3	3	9	0.107143	10.7142857	11	2	7	1	10	_	1
14	Urticaria	L	2	1	2	0.02381	2.38095238	2	1	0	0	1	_	2
15	Drug eruption	L	1	1	1	0.011905	1.19047619	1	1	1	0	2	_	2
16	Bullous diseases	L	1	1	1	0.011905	1.19047619	1	1	1	0	2	_	1
17	Pigmentary disorders	L	1	1	1	0.011905	1.19047619	1	0	1	0	1	_	1
18	Hair disorders	L	1	1	1	0.011905	1.19047619	1	1	0	0	1	_	9
19	Nail disorders	L	1	1	1	0.011905	1.19047619	1	3	2	2	7	_	8
20	Pruritus	L	1	2	2	0.02381	2.38095238	2	3	3	1	7	_	5
21	Connective tissue diseases	L	1	1	1	0.011905	1.19047619	1	2	1	1	4	_	5
22	Skin & systemic diseases	L	1	1	1	0.011905	1.19047619	1	2	1	1	4	_	4
23	Skin diseases due to physical agents	L	1	1	1	0.011905	1.19047619	1	1	1	1	3	_	2
24	Genodermatosis	L	1	1	1	0.011905	1.19047619	1	1	1	0	2	_	1
25	Benign and malignant skin diseases	L	1	1	1	0.011905	1.19047619	1	1	0	0	1	_	3
26	Sexually transmitted diseases (1)	L	1	2	2	0.02381	2.38095238	2	0	1	1	2	_	2
27	Sexually transmitted diseases (2)	L	1	2	2	0.02381	2.38095238	2	1	1	0	2	_	
28														
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9.Learning Resources

References

- Richard B. Weller, Hamish J. A. Hunter, Margaret W. Mann. Clinical dermatology 5th Ed. John Wiley & Sons, 2015
- Arturo P. Saavedra, Ellen K. Roh, Anar Mikailov. Fitzpatrick Color Atlas and Synopsis of Clinical Dermatology 9 th Ed. McGraw-Hill 2023

10.Additional Information

Contact: haitham.fathi@uoninevah.edu.iq

Location: Dept. of medicine

Radiology for the fifth year

1.General Information:

- **Subject**: Radiology
- **Code**: 536
- **Credit hours**: 2 units(20 hours theoretical/ 15 hours practical).
- **Course Language**: English.

2.Syllabus:

- Introduction to radiology

- Mechanism of X ray production & its diagnostic uses

- Chest radiology :

- Normal chest x ray & basic views
- Diffuse lung disease radiological features.
- Parenchymal acinar lung disease, collapse & consolidation.
- Various types of pulmonary tumors & way of evaluation.
- Pleural disease, effusion, pneumothorax & pleural masses.

- **Musculoskeletal system**:

- Normal bone radiological appearance.
- Radiological features of bone infection & differentials.
- Feature of common bone disease, congenital &metabolic.
- Common bone tumor & their differentiation.

- **Mediastinum & heart radiology**:

- Cardiomegaly & gross heart anomalies.
- Mediastinal evaluation & diagnosing common mediastinal diseases & masses.

- **GIT radiology**:

- Steps of contrast GIT procedures.
- Normal esophagus appearance & its common diseases.
- Stomach diseases & tumors.
- Radiological features of small intestine & differentiation of its pathology.
- Common colon pathology on native & contrast study.

- Urinary system:

- Anatomy of urinary system & steps of IVU
- Diagnosing common renal system pathology including stones & tumors on various radiological modalities.

- CT & MRI of brain :

- Basics of CT scan & showing diagnostic points of common emergency brain diseases.
- Basics & mechanism of MRI.
- MRI medical uses & diagnosing common brain pathology.

- Gyne & obstetric US:

- Main US features of common reproductive system pathology

- Radiation protection:

- Important rules in radiation protection & their practical importance

- Mammography:

- Diagnose common breast tumor & screening purposes

- Radiotherapy:

- Mechanism & uses of radiation in treating various tumors

3.**Learning** Objective:

Knowledge

- **Chest radiology :** Students will be able to describe the normal CXR in addition, to diagnosing various chest disease including parenchymal disease, diffuse infiltrative diseases , tumor & pleural pathology.
- **Musculoskeletal system**: Students will identify radiological features of common bone diseases such as infection, bone tumor and congenital disorders.
- **GIT radiology**: Students will understand how to diagnose & differentiate between different GIT diseases on both native & contrast study.
- **Urinary system**: student should know procedure of IVU in addition to radiological features of renal system anomalies & diseases.
- **CT scan & MRI of brain** : student will be able to diagnose various brain pathology especially concerning emergency brain diseases.

Skills

- **Image Interpretation:** Accurately interpret X-rays, CT, MRI, and ultrasound images.
- **Critical Thinking:** Develop differential diagnoses and solve diagnostic challenges.

Attitudes

- **Curiosity:** Stay motivated to learn and keep up with advancements in radiology.
- **Adaptability:** Be open to new technologies and methods.
- **Responsibility:** Prioritize patient safety and accurate reporting.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of common diagnostic modalities & their uses in diagnosing human hiseases.
- **Evidence-Based Practice**: Graduates will be able to diagnose many pathology using different radiological modalities.

Skills

- **Clinical Competence**: Graduates will be differentiate radiological modalities & their procedures & indication to diagnose different pathologies.
- **Diagnostic Skills**: Graduates will accurately diagnose various emergency pathology.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in using the appropriate investigation to help patient.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in radiology.

5.Course Overview

- **The course is composed of two parts as follow:**

1.*Theoretical Part . 2. Practical part*

- **Duration**:

For the theoretical part:

- Weekly Hours: one hour per week (first semester)
- Weekly Hours: one hour per week (second semester)
- Total: 30 hours per academic year

For the practical part:

- Weekly----full time two days. (about 10 hours)
- Weekly….. full time two days. (about 10 hours)
- Total….20 hours per each group course.

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: Radiology department teaching hall + hospital radiology department visit.

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

-For the practical part.

- Presenting various medical cases and focusing on emergency cases and common conditions that students face in hospitals after graduation.
- Learn about various diagnostic fields, including ultrasound, X-ray, CT scanner, and MRI.
- View the various radiological examinations and tour the diagnostic radiology departments.
- Applying teaching small groups.
- Conducting tests and doing partial evaluations during seminars.
- Assigning students to present seminars periodically in various radiological fields.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams, online exams.
- **Summative Assessments**: Midterm exams, end term exams , end course and final practical exam.
- **Continuous Feedback**: Provided throughout the course

-*Components of Assessment:*

- Course end Exam (10% of total grade)
- Midterm Examination (20% of total grade)
- Final examination (40% of total grade)
- Final practical examination (30% of total grade)

-*Detailed Breakdown*

- **Written Exams (60%)**:
  - Midterm Exam: 20 % (Covers topics from the first half of the course, includes multiple-choice questions (MCQs), short answer questions (SAQs), and case-based questions)
  - End term Exam: 40 % (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions)
- **Practical Examination (40%)**:
  - End of course exam & Performance: 10% (Assessed by supervisors during course & by practical examination)
  - Final practical exam : 30% (including many long cases exam & short spot cases exam in addition to oral exam)

-Pass/Fail Criteria

- **Pass Mark**: 50%

- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Blueprints of final exam** Radiology/ fifth year/ 1st trial

system	Subjects	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	Remembering(direct questiond)	Understanding(indirect questions)	Appl./ Problem solving
Chest	Introduction to radiology	0.02	2.0	2	0	0
	• Normal chest x ray & basic views	0.02	2.0	2	0	0
	• Diffuse lung disease radiological features.	0.02	2.0	1	1	0
	• Parenchymal acinar lung disease, collapse & consolidation.	0.02	2.0	1	0	1
	• Various types of pulmonary tumors & way of evaluation.	0.02	2.0	1	1	0
	• Pleural disease, effusion, pneumothorax & pleural masses.	0.02	2.0	1	1	0
Mediast. & heartt	• Cardiomegaly & gross heart anomalies.	0.02	2.0	1	1	0
	• Radiology of Mediastinum .	0.02	2.0	0	2	0
Musculoskeletal	• Normal bone radiological appearance.	0.06	6.0	2	4	0
	• Radiological features of bone infection & differentials.	0.06	6.0	0	5	1
	• Feature of common bone disease, congenital &metabolic.	0.06	6.0	4	2	0
	• Common bone tumor & their differentiation.	0.06	6.0	2	4	0
GIT radiology:	• Steps of contrast GIT procedures.	0.02	2.0	0	2	0
	• Normal esophagus appearance & its common diseases.	0.02	2.0	0	2	0
	• Stomach diseases & tumors.	0.02	2.0	1	1	0
	• Radiological features of small intestine & differentiation of its pathology.	0.02	2.0	0	1	1
	• Common colon pathology on native & contrast	0.02	2.0	0	2	0
Urinary syste	• Anatomy of urinary system & steps of IVU	0.06	6.0	3	3	0
	• Diagnosing common renal system pathology including stones & tumors on various radiological modalities.	0.06	6.0	3	2	1
CT & MRI of b	• Basics of CT scan & showing diagnostic points of	0.06	6.0	4	2	0
	• Basics & mechanism of MRI.	0.06	6.0	2	4	0
	• MRI medical uses & diagnosing common brain pathology.	0.06	6.0	2	3	1
Gyne and Ob	• Main US features of common reproductive system pathology	0.06	6.0	2	3	1
Radiation	• Important rules in radiation protection & their practical importance	0.06	6.0	6	0	0
Mamm	• Diagnose common breast tumor & screening purposes	0.02	2.0	1	1	0
Radio	• Mechanism & uses of radiation in treating various tumors	0.06	6.0	4	2	0
	Total	1	100.0	45	49	6

6.Instructional Objective of the lectures:

No.	Title of lecture	Faculty member	No. of lecture	Instructional objective
1.	**Introduction to radiology**	**Dr. Abeer Wali**	**1**	To know mechanism of X ray production & its diagnostic uses.
2.	**Musculoskeletal system**	**Dr. Ahmed Mudhkher**	**5**	1.knowing normal bone radiological appearance. 2.to known radiological features of bone infection & differentials. 3.Feature of common bone disease, congenital &metabolic. 4.detecting features of common bone tumor & their differentiation.
3.	**Chest**	**Dr. Rasha Nadeem**	**4**	1.to learn normal chest x ray & basic views. 2.to shows diffuse lung disease radiological features. 3.to know feature of consolidation & collapse & differentiation. 4. to diagnose various types of pulmonary tumors & way of evaluation. 5.To know pleural disease, effusion, pneumothorax & pleural masses.
4.	**Heart**	**Dr. Mohamed Muyaser**	**1**	To detect cardiomegaly & gross heart anomalies.
5.	**Mediastinum**	**Dr. Mohamed Muyaser**	**2**	How to do Mediastinal evaluation & diagnosing common mediastinal diseases & masses.
6.	**GIT**	**Dr. Zahraa Salim**	**5**	1.to know steps of contrast GIT procedures. 2.normal esophagus appearance & its common diseases.

				3.to detect stomach diseases & tumors. 4. knowing radiological features of small intestine & differentiation of its pathology. 5. to diagnose common colon pathology on native & contrast study.
7.	**CT scan abdomen & brain**	**Dr. Mohamed Muyaser**	**2**	Knowing basics of CT scan & showing diagnostic points of common emergency brain diseases
8.	**Urinary system**	**Dr. Abeer Wali**	**3**	1.describe anatomy of urinary system & steps of IVU 2. ability to diagnoses common renal system pathology including stones & tumors on various radiological modalities.
9.	**MRI physics & brain**	**Dr. Mohamed Muyaser**	**2**	1.To know basics & mechanism of MRI. 2.to learn MRI medical uses & diagnosing common brain pathology.
10	**Gyne & obstetric US**	**Dr. Rasha Nadeem**	**2**	To know main US features of common reproductive system pathology
11	**Radiation protection**	**Dr. Ahmed Mudhkher**	**1**	Get idea about important rules in radiation protection & their practical importance
12	**Mammography**	**Dr. Abeer Wali**	**1**	To know how to diagnose common breast tumor & screening purposes.
13	**Radiotherapy** **د زهراء**	**Dr. Zahraa Salim**	**1**	Learning mechanism & uses of radiation in treating various tumors.
	Total		**30**	

7.Instructional objectives of the Practical sessions:

	Session title	Faculty member	Session hours	Instructional objective
1	Chest	Dr. Rasha Nadeem	3	• To learn normal chest x ray & basic views. • Knowing radiological features of collapse, consolidation, diffuse lung disease & tumor.
2	**Musculoskeletal**	**Dr. Ahmed Mudhkher**	3	• Knowing normal bone radiological appearance. • To know radiological features of bone infection & differentials, tumor & anomalies.
3	**GIT**	**Dr. Zahraa Salim**	3	• Diagnosing different GIT pathology of esophagus, stomach, small bowel & large bowel on plain & contrast study.
4	**Urinary system**	**Dr. Abeer Wali**	3	• Describe steps of IVU • Diagnosing common renal system pathology including stones & tumors on various radiological modalities.
5	**CT scan**	**Dr. Mohamed Muyaser**	3	• Knowing basics of CT scan & showing diagnostic points of common emergency brain diseases

8.Tables of the Course

- Theoretical lecture (one hour weekly) : on Sunday.
- Practical sessions : full time two days weekly as follow :
    - Wednesday : Dr. Mohamed + Dr. Abeer……. (CT scan + urinary system)
    - Thursday : Dr. Ahmed Mudhkher…… (Musculoskeletal)
    - Wednesday: Dr. Zahraa Salim ……(GIT)
    - Thursday : Dr. Rasha Nadeem ……(Chest)

9.Learning Resources

- **Books**: Armstrong's Diagnostic Imaging textbook.
- **Suggested online resources:**
  -**Radiopaedia.org** - A free, comprehensive radiology reference with a large collection of radiology cases and articles. It is considered one of the best radiology reference sites for trainees.
  -**Radiologyassistant.nl** - A free resource providing up-to-date radiological education for trainees and consultants, focusing on common clinical problems presented by experts..

10.Additional Information

Contact: Dr. Mohamed Muyaser Naif.

Mohamed.naif@uoninevah.edu.iq

Location: Surgery department

Gynecology for the fifth year

1. General Information:

- **Subject**: gynecology
- **Code:** (537)
- **Credit hours :** 6 units.
- **Coarse Language**: English.

2. Syllabus:

A**. basic signs in gynecology**

1. Embryology of the female genital tract
2. Normal anatomy of female reproductive system
3. Abnormalities of female genitalia
4. Intersex

B. Endocrinology

1. Normal puberty and menstrual cycle
2. Precocious puberty
3. Delayed puberty
4. Primary amenorrhea
5. Secondary amenorrhea
6. Abnormal uterine bleeding and its management
7. Polycystic ovarian syndrome
8. Hirsutism and virilism

C. Infertility

1. Subfertility and its management
2. Dysmenorrhea and premenstrual syndrome
3. Endometriosis and adenomyosis

D. Gestational trophoblastic disease

1. Hydatidiform male
2. Choriocarcinoma

E. Infection

1. Genital tract infection
2. Sexually transmitted diseases
3. Pelvic inflammatory diseases

F. Contraception

1. Birth control methods
2. Combine contraception
3. Progesterone only contraception
4. Intrauterine contraception

5. Barrier method of contraception
6. Natural family planning
7. Sterilization

G. Oncology

1. Postmenopausal bleeding and endometrial carcinoma
2. Fibroid and endometrial polyps
3. Benign lesions of the cervix
4. Precancerous and carcinoma of the cervix
5. Benign and premalignant lesions of vulva and vagina
6. Carcinoma of vulva and vagina
7. Ovarian cysts
8. Ovarian cancer

H. Urogynecology

1. Urinary incontinence
2. Uterovaginal prolapse

I. Operative gynecology

1. Preoperative preparation and postoperative complications
2. Laparoscopy and hysteroscopy
3. Medico-legal aspects in obstetrics and gynecology

J. Hormonal therapy in gynecology

1. Hormone replacement therapy

3. Learning Objective:

Knowledge:

- **Basic Science:** the student able to describe the embryological steps for normal formation of female and male genital tract. The normal parts of female genital tract.
- **Endocrinology** the student understand Describe the hormonal changes that lead to normal puberty and normal menstrual cycle and the steps of secondary sexual characteristics**.**
- **Infertility:** the student to be able to provide a differential diagnosis for abdominal pain in pregnancy and a management plan, understand the risk factors, presentation and management of them.
- **Gestational trophoblastic diseases** : the student understand the importance of the Hydatidiform male, symptoms, diagnosis , management and follow up and describe choriocarcinoma, presentation and management.
- **Infection:** the student able to describe the upper and lower genital tract infection, causative microorganism, diagnosis and management and describe the different types of sexually transmitted disease, diagnosis, management, contact tracing and follow up.

- **Contraception:** the student able to know contraceptive and birth control method, combine, progesterone, barrier and natural family planning.
- **Oncology:** the student understand the physiological principles and the causes of vaginal bleeding in postmenopausal women and the detection of cancer of endometrium, staging and management and able to describe the presentation, risk factors, detection, staging, management and follow up of different types of carcinoma of genital tract.
- **Urogynecology:** the student able to describe the presentation of different types of involuntary loss of urine, stages, diagnosis, medical and surgical management operations**.**
- **Operative gynecology:** the student understands the changes that occur in the different types of abdominal and vaginal hysterectomy and different surgical procedures in gynecology.
- **Hormonal therapy in gynecology:** the student able to describe the different aspect of using of hormonal as hormone replacement therapy in postmenopausal women.

Skills:

- **Clinical Examination**: Students will perform comprehensive gynecological physical examinations, including abdominal and pelvic examination..
- **Communication**: Students will demonstrate effective communication skills with the women.
- **Procedures**: Students will competently perform basic gynecological examinations and do pelvic and bimanual pelvic examination and taking swab under supervision.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse
- backgrounds of patients.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of the physiology and normal development and puberty of woman and the diseases occur in woman and how to follow them and prevent and manage it.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in woman care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of gynecological problems assessments and interventions.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of gynecological conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in women care, prioritizing the well-being and rights of human.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in gynecology.

5. Course Overview

- The course is composed of two parts as follow:

1. *Theoretical Part. 2. Practical part*

- **Duration**:

  For the theoretical part:

  - Weekly Hours: Two hours per week (first semester)
  - Weekly Hours: Two hours per week (second semester)
  - Total: 42 hours per academic year

  For the practical part:

- Weekly Hours: 16hours per week (each group) divided on two days (Wednesday and Thursday)
- Total: 40 hours per academic year.

- **Location**:

-For the theoretical part: Lecture Hall

-For the practical part: outpatient clinics in AL- Salam and AL-Batool teaching hospitals.

- **Format**:

- For the theoretical part

- Tutor-Centered
- Student-Centered: Motivating students to discuss and present parts of the lecture.
- Interactive Teaching
- Case-Based Learning

- *For the practical part.*

- Clinical Rotations
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Simulation Training
- Skills Labs
- Lectures and Seminars
- Ward Rounds
- Clinical Tutorials
- Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: Midterm exams, end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course

- **Grading System**

-*Components of Assessment:*

- Written Exams (20% of total grade)(20 marks)
- Objective Structured Clinical Examination (OSCE) (10% of total grade)(10 marks)
- Clinical Performance extra (2 marks)

-*Detailed Breakdown*

- **Written Exams (40%)**:
  - Midterm Exam: 20 marks (Covers topics from the first half of the course, includes 40 multiple-choice questions (MCQs),1 short answer questions (SAQs), and 2 case-based questions).
  - End term Exam:70% (Comprehensive exam covering the entire course content, includes 80 MCQs)
- **Objective Structured Clinical Examination (OSCE) (10 marks)**:
  - Station: Typically includes assessing different clinical skills (e.g., history taking, physical examination, communication, and procedural skills).
- **Presentation and extra clinical performance (2 marks)**:
  - Presentation: (Students present their research findings to peers and faculty. Evaluation is based on presentation skills, ability to answer questions, and quality of visual aids)

-Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations, peer evaluations.

  Blueprint/ final exam/ 1st trial.

blueprint of gynecology

Group No.: ……3…….. College/ Department: college of medicine/ dept. of surgery

Unit/ Course/ Subject: ……written assessment exam for 6th stage(round2). Year: 2022/2023

	Unit LOs	m of te	I	F	I*F	weight(I*F)/T	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Basic Sciences	Patho-physiology	Clinical findings/ Exam	Investigati	Diagnosis	Mana
1	Embryology of the female genital tract		1	1	1	0.009901	1.0	1						
2	2. Normal anatomy of female reproductive system		1	1	1	0.009901	1.0	1						
3	3. Abnormalities of female genitalia		1	1	1	0.009901	1.0	1						
4	4. Intersex		1	1	1	0.009901	1.0	1						
5	Normal puberty and menstrual cycle		1	1	1	0.009901	1.0	1						
6	2. Precocious puberty		1	1	1	0.009901	1.0	1						
7	3. Delayed puberty		1	1	1	0.009901	1.0	1						
8	4. Primary amenorrhea		1	2	2	0.019802	2.0	2						
9	Secondary amenorrhea		2	2	4	0.039604	4.0	4						
10	6. Abnormal uterine bleeding and its management		3	3	9	0.089109	8.9	9						
11	7. Polycystic ovarian syndrome		2	3	6	0.059406	5.9	5						
12	8. Hirsutism and virilism		1	1	1	0.009901	1.0	1						
13	Subfertility and its management		1	1	1	0.009901	1.0	1						
14	2. Dysmenorrhea and premenstrual syndrome		1	1	1	0.009901	1.0	1						
15	3. Endometriosis and adenomyosis		2	1	2	0.019802	2.0	2						
16	Hydatidiform male		1	1	1	0.009901	1.0	1						
17	2. Choriocarcinoma		1	1	1	0.009901	1.0	1						
18	Genital tract infection		3	3	9	0.089109	8.9	9						
19	2. Sexually transmitted diseases		1	2	2	0.019802	2.0	2						
20	3. Pelvic inflammatory diseases		1	1	1	0.009901	1.0	1						
21	Birth control methods		2	3	6	0.059406	5.9	5						
22	2. Combine contraception		2	1	2	0.019802	2.0	2						
23	3. Progesterone only contraception		2	1	2	0.019802	2.0	2						
24	4. Intrauterine contraception		2	1	2	0.019802	2.0	2						
25	5. Barrier method of contraception		1	1	1	0.009901	1.0	1						
26	6. Natural family planning		2	2	4	0.039604	4.0	4						
27	7. Sterilization		1	1	1	0.009901	1.0	2						
28	Postmenopausal bleeding and endometrial carcinoma		2	2	4	0.039604	4.0	4						
29	2. Fibroid and endometrial polyps		2	3	6	0.059406	5.9	6						
30	Benign lesions of the cervix		1	1	1	0.009901	1.0	1						
31	4. Precancerous and carcinoma of the cervix		1	1	1	0.009901	1.0	1						
32	5. Benign and premalignant lesions of vulva and vagina		1	1	1	0.009901	1.0	1						
33	6. Carcinoma of vulva and vagina		1	1	1	0.009901	1.0	1						
34	7. Ovarian cysts		3	3	9	0.089109	8.9	9						
35	8. Ovarian cancer		1	1	1	0.009901	1.0	1						
36	Urinary incontinence		2	1	2	0.019802	2.0	2						
37	2. Uterovaginal prolapse		2	2	4	0.039604	4.0	4						
38	Preoperative preparation and postoperative complications		2	1	2	0.019802	2.0	2						
39	2. Laparoscopy and hysteroscopy		1	2	2	0.019802	2.0	2						
40	3. Medico-legal aspects in obstetrics and gynecology		1	1	1	0.009901	1.0	1						
41	Hormone replacement therapy		1	1	1	0.009901	1.0	1						
	total		60	60	101	1	100.0	100	0	0	0	0	0	

6. Instructional Objective of the lectures:

	Lecture title	No. Of lectures	Faculty member	Instructional objective
	Basic signs in gynecology	4	Dr. Yosra	- Describe the embryological steps for normal formation of female and male genital tract.
	Endocrinology	8	Dr. Yosra Dr. Dalya Dr. Heba	- Describe the hormonal changes that lead to normal puberty and normal menstrual cycle and the steps of secondary sexual characteristics. - Describe the condition and abnormalities which lead to premature puberty.
	Infertility	4	Dr. Dalya Dr. Heba	- Describe the primary and secondary subfertility, the causes, the diagnosis and the management. - Describe the abnormal endometrial tissue implantation and the diagnosis and management.
	Gestational trophoblastic diseases	2	Dr. Yosra	- Describe the Hydatidiform male, symptoms, diagnosis, management and follow up. - Describe choriocarcinoma, presentation and management.
	Infection	3	Dr. Heba	- Describe the upper and lower genital tract infection, causative microorganism, diagnosis and management. - Describe the different types of sexually transmitted disease, diagnosis, management, contact tracing and follow up.
	Contraception	7	Dr. Heba Dr. Dalya	- Describe what is contraceptive and birth control method, combine, progesterone, barrier and natural family planning. - Describe the permanent different forms of contraceptive, counseling, methods and complications.
	Oncology	8	Dr. Yosra Dr. Dalya Dr. Heba	- Describe the causes of vaginal bleeding in postmenopausal women and the detection of cancer of endometrium, staging and management.

				- Describe the presentation, risk factors, detection, staging, management and follow up of different types of carcinoma of ovary.
	Urogynecology	2	Dr. yosra	- Describe the presentation of different types of involuntary loss of urine, stages, diagnosis, medical and surgical management operations.
	Operative gynecology	2	Dr. Dalya	- Describe the different types of abdominal and vaginal hysterectomy and different surgical procedures in gynecology
	Hormonal therapy in gynecology	1	Dr. Dalya	- Describe the different aspect of using of hormonal as hormone replacement therapy in postmenopausal women.
	Medico-legal aspects in obstetrics and gynecology	1	Dr. Heba	- To understand the most common object of conflict in obstetric and gynecological conditions.

7. Instructional objectives of the clinical sessions:

	Session Objective	**No. Of sessions**	**Teaching faculty**	**Instructional Objectives**
	1. Gynecology Training Objectives:	2	Dr. Yusra Dr. Dhuka	Day1: **Introduction to Gynecology and Primary Health Care** o Understand the organization and

		2 2	Dr. Dalya Dr. Heba Dr. Tahani Dr. Shaymaa	function of gynecology wards and clinics. ○ Conduct basic gynecological history taking and examinations. ○ Identify and use common gynecological instruments. Day2: • **Benign Gynecological Conditions** ○ Manage common benign gynecological conditions such as fibroids and ovarian cysts. ○ Observe and understand surgeries for benign conditions.

		2 2	Dr. Shahad Dr. Aseel Dr. Zahraa Dr. Heba	○ Recognize and manage menstrual disorders and pelvic pain. Day3: • **Gynecological Infections and STDs** ○ Diagnose and manage gynecological infections and sexually transmitted diseases. ○ Observe procedures related to infections, like laparoscopy for PID. ○ Understand the treatment and prevention of STDs. Day4: • **Reproductive**

				Endocrinology and Infertility • Conduct infertility workups and hormonal assessments. • Manage conditions like PCOS and endometriosis. • Understand and observe procedures related to reproductive endocrinology. Day5: **Contraception** • Recognize different method of contraception • Observe the insertion of IUCD and implanon. • Recogniz

				e the side effects, complications and prolongation. • The contrindication of contraception.
				Day6: End Course exam

8. Tables of the Course

جدول الدوام الأسبوعي لفرع النسائية والتوليد

المرحلة	الأحد ٢/١٨	الاثنين ٢/١٩	الثلاثاء ٢/٢٠	الأربعاء ٢/٢١	الخميس ٢/٢٢
الرابعة	كروب 1و٢ مختبر المهارات م. د. ميس رافع كروب ٣ ردهات م. السلام م. د. تهاني علي كروب ٤ ردهات م. السلام أ.م. د. ذكاء عباس كروب ٥ ردهات م. السلام أ.م. د. يسرى طاهر كروب 6 ردهات م. البتول د. شهد شهاب				محاضرتان نظري في القاعات المحددة من قبل التسجيل م. د. شيماء حازم م. د. ميس رافع
الخامسة			محاضرتان نظري في قاعة الدكتور طاهر الدباغ م. د. هبة نوري	كروب ١ استشارية م. البتول د. شهد شهاب كروب ٢ استشارية م. السلام م. د. هبة نوري	كروب ١ استشارية م. السلام أ.م. د. يسرى طاهر كروب ٢ استشارية م. البتول د. اسيل سالم
السادسة	تيتوريال في قاعة الفرع م. د. داليا مظفر	عمليات م. السلام م. د. شيماء حازم	ردهات م. السلام د. فاطمة وليد	ردهات م. السلام م. د. تهاني علي	مركز صحي حي العربي د. اسلام

ملاحظة: يبدا الدوام الساعة الثامنة والنصف صباحاً إلى الساعة الحادية عشرة ثم يستانف الساعة الحادية عشرة والنصف (بعد استراحة لنصف ساعة) إلى الساعة الثانية ظهراً، دوام الاستشارية يكون مستمراً من الساعة الثامنة والنصف صباحاً وذلك نظراً لطبيعة الدوام في الاستشارية.

9. Learning Resources

- Textbook by ten teachers for gynecology (last edition).
- Williams's gynecology (last edition).

- Quid lines of RCOG.

10. Additional Information

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Heba.saeed@uoninevah.edu.iq , Mobile: 07741858008 مقررة الفرع

Location: فرع النسائية والتوليد

College of medicine _ Ninevah University

Sixth Year Curriculum

منهاج المرحلة السادسة

المرحلة السادسة					
	المادة	The Subject	عدد اسابيع التدريب السريري	عدد الوحدات	كود المادة
1	الطب الباطني	Internal Medicine	10اسابيع في الطب الباطني العام	12	638
			2 أسبوع في الامراض النفسية والعصبية		
			10حلقات مناقشة بمعدل واحدة اسبوعيا		
2	الجراحة	Surgery	الجراحة العامة	12	639
			جراحة الكسور		
			جراحة المجاري البولية		
			10حلقات مناقشة بمعدل واحدة اسبوعيا		
3	النسائية و التوليد	obstetric& Gynecology	10اسابيع في ردهات النسائية والتوليد	10	640
			10حلقات مناقشة بمعدل واحدة اسبوعيا		
4	طب الاطفال	Pediatric	8اسابيع في ردهات الاطفال	10	641
			2اسبوع في مركز ارعاية الصحية الاولية		
			8حلقات مناقشة بمعدل واحدة اسبوعيا		
		المجموع		44	

2023_2024

Internal Medicine for the sixth year

1. General Information:

- **Subject**: internal medicine
- **Code**: (638)
- **Credit hours**: 12units equivalent to 275 practical hours
- **Course Language**: English.

2. Syllabus:

Main objects to be discussed during clinical training and seminars:

- Ischemic heart disease
- Cardiac arrhythmia
- Heart failure/ acute pulmonary oedema
- Hypertension
- Rheumatic valve/Valve heart disease
- Pulmonary embolism/DVT
- Congenital heart disease
- Stroke
- CNS infection
- ICH/ SAH
- Epilepsy/ symptomatic seizure/ Status Epilepticus
- Approach to Headache
- GBS, PNP
- Myasthenia Gravis, Myopathy
- MS, Spinal disease
- Approach to Coma/ Transient loss of consciousness
- Upper GIT Bleeding/peptic ulcer
- Jaundice
- Gastroenteritis / GIT infection
- Approach to Ascites
- Liver cirrhosis/hepatic encephalopathy
- Diabetic Ketoacidosis
- Thyrotoxicosis/ hypothyroidism
- Dyslipidaemia
- Chronic complication of DM
- Asthma
- COPD

- ARDS/COVID19/pneumonia
- Acute kidney injury
- Chronic renal disease
- Electrolyte disturbances
- Shock management
- Rheumatoid arthritis
- SLE , vasculutic diseases
- Approach to anaemia
- Haematological malignancy
- Approach to bleeding disorders
- Basic life support/ advanced life support

3. Learning Objective:

Knowledge: At the end of the Academic Year the student should be able to understand:

- Clinical features, investigations, differential diagnosis, treatment and prognosis of internal medicine diseases
- Management of critical and urgent cases of internal medicine

Skills

- Analyze physical signs.
- Interpret clinical data.
- Take history correctly
- Do systematic clinical exam
- Examine the body systems appropriately

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patients and their families.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: Graduates will have a thorough understanding of clinical presentation of common medical diseases and medical emergencies.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in patients care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of clinical assessments and interventions, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of medical diseases.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in patients care, prioritizing the well-being and rights of patients.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves patient and his relatives in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in internal medicine.

5. Course Overview

The course is practical course only

- **Duration:**
    - The duration of the clinical training course is 11 weeks (5days/week, 5 hourse/day)
- **Location**:
    - Al Salam Teaching Hospital/Clinical Internal Units, consultation units.
    - Ibn Sina Teaching Hospital/Clinical Internal Units, consultation units, neurology , haematology wards, RCU, ICU and dialysis units
    - Mosul center for cardiology and cardiac surgery

- **Format**:
    - Clinical Rotations
    - Bedside Teaching
    - Case-Based Learning (CBL)
    - Problem-Based Learning (PBL)
    - Simulation Training
    - Skills Labs
    - Lectures and Seminars
    - Ward Rounds
    - Clinical Tutorials
    - Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: Quizzes, practical exams
- **Summative Assessments**: End term exams
- **Continuous Feedback**: Provided throughout the course

Components of Assessment and detailed breakdown:

- Written Exams: 48 marks (8 marks for coarse exam and 40 marks for final exam). each exam consists of 100 single choice questions including problem solving cases.
- Objective Structured Clinical Examination (OSCE): 48 marks: 8 marks for coarse exam and 40 marks for final exam.
- Clinical Performance and Logbook (4 marks of total grade)

Pass/Fail Criteria

- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Blueprinting of Internal Medicine questions (Total 100)**

Cardiology	**15**
Respiratory	**15**
GIT & Hepatology	**10**
Haematology and Oncology	**10**
Endocrinology & Diabetes Mellitus	**10**
Neurology	**8**
Nephrology	**10**
Infectious	**10**
Rheumatology	**8**
Dermatology	**2**
Psychiatry	**2**
Total 100 questions	**Total 100 questions**

Distribution of questions by Medical subjects and subclass details

The Subject	**Subclass**	**Total No. of questions**
Cardiology	**Hypertensions primary / 1** **Secondary HT / 1** **Ischemic Heart Diseases / 1** **Myocardial infarction / 1** **Pericardial diseases / 1** **Dysrhythmia / 1** **Conduction defect / 1** **Congenital heart diseases / 1** **Valvular Heart Diseases / 1** **Endocarditis / 1** **Myocardial diseases / 1** **Heart failure / 1** **Pulmonary vascular dis. / 1** **Lipid disorders / 1** **Antithrombotic therapy / 1**	**15**
Respiratory	**Asthma / 1** **Chronic bronchitis / 1** **Emphysema / 1** **Occupational lung dis. / 1** **Restrictive lung dis. / 1** **Interstitial lung dis. / 1** **Pleural diseases / 1**	**15**

	Upper respiratory tract infection /1 **Lower respiratory tract infection /1** **Tuberculosis / 1** **Bronchiectasis / 1** **Congenital lung dis. / 1** **Acute respiratory distress syndrome /1** **Lung cancer / 1** **Sleep apnoea / 1** **Management of Ventilators /1**	
GIT & Hepatology	**Oesophageal diseases / 1** **Stomach& Duodenal dis. / 1** **Small intestinal dis. / 1** **Inflammatory Bowel diseases / 1** **Pancreatic diseases / 1** **Biliary tract disease / 1** **Acute Liver diseases / 1** **Chronic liver diseases / 1** **GIT bleeding / 1** **Irritable bowel syndrome / 1**	**10**
Haematology and Oncology	**Hypo proliferative anaemia /1** **Haemolytic anaemia / 1** **Hemoglobinopathies & thalassemia / 1** **Acute Leukemia & Chronic Leukemia / 1** **Lymphoma / 1** **Platelets disorders (ITP) / 1** **Coagulation disorders / 1** **Myeloproliferative disorders / 1** **Myelodysplastic syndrome / 1** **Blood Transfusion complications / 1**	**10**
Endocrinology & Diabetes Mellitus	**Diabetes Mellitus type one /1** **Diabetes Mellitus type two /1** **Adrenal insufficiency or excess / 1** **Thyroid diseases / 1** **Hyperlipidaemias / 1** **Hyper- hypocalcaemia / 1** **Osteoporosis, osteomalacia / 1** **Pituitary tumor / 1** **Insulinoma , Gastrinoma / 1** **Obesity , Nutritional disorders /1**	**10**
Neurology	**Seizures / 1** **Stroke /1** **Headache / 1** **Nerve root syndromes / 1** **Peripheral neuropathy / 1**	**8**

	Cranial neuropathy / 1 **Movement disorders / 1** **Multiple sclerosis, demyelinating dis. / 1**	
Nephrology	**Acute Kidney injury /1** **Chronic Kidney diseases / 1** **Kidney Dialysis / 1** **Glomerulonephritis / 1** **Lupus nephritis / 1** **Nephrolithiasis , UTI / 1** **Obstructive uropathy / 1 question** **Diabetic nephropathy / 1** **Electrolyte and water balance / 1** **Acid based balance / 1**	**10**
Infectious	**AIDS (HIV infection) / 1** **Sexual Transmitted dis. /1** **Septicaemia & Sepsis / 1** **Gastroenteritis (viral or Bacterial) / 1** **Hepatitis and liver abscess / 1** **Influenza viral infection and other flu illness /1** **Post streptococcal Rheumatic fever& Glomerulonephritis / 1** **Nosocomial infections / 1** **Prophylaxis of infectious diseases / 1** **Fever of unknown origin / 1**	**10**
Rheumatology	**Gout, Pseudo-gout / 1** **Reactive arthritis / 1** **Rheumatoid arthritis / 1** **Systemic lupus erythematosus / 1** **Systemic sclerosis / 1** **Vasculitis / 1** **Osteoarthritis / 1** **Other Rheumatic disorders (dermatomyositis) / 1**	**8**
Dermatology	**Herpes zoster and Varicella / 1** **Dermatitis Herpetiformis /1**	**2**
Psychiatry	**Depression and Mood disorder /1** **Schizophrenia / 1**	**2**
Total		**100 questions**

6. Instructional Objective of the lectures:

Not applied No theoretical part

7. Instructional Objective of the clinical sessions:

Title of the subject	No. of sessions	Teaching Faculty Staff	Instructional objective
Cardiovascular System	8-10	• Assistant prof Ahmed Moyed Hussein • Dr. Faris Mahmmod • Dr. Ahmed Mohammed Saeid	**Ischemic Heart Disease** • Identify the pathophysiology, risk factors, and clinical presentation of ischemic heart disease. • Interpret diagnostic tests such as ECG, stress tests, and coronary angiography. • Formulate treatment plans including medical management, lifestyle changes, and interventional strategies. **Cardiac Arrhythmia** • Recognize different types of arrhythmias and their ECG characteristics. • Evaluate patients presenting with arrhythmias and determine appropriate management strategies. • Understand pharmacologic and non-pharmacologic treatment options for arrhythmias. **Heart Failure/Acute Pulmonary Oedema** • Describe the pathophysiology, clinical presentation, and diagnostic

			criteria for heart failure. • Assess the severity of heart failure and acute pulmonary oedema. • Develop a comprehensive management plan including medications, lifestyle modifications, and potential advanced therapies. **Hypertension** • Understand the pathophysiology and classification of hypertension. • Perform a thorough evaluation and diagnosis of hypertension. • Recognize patients with emergent ant urgent HT • Design individualized treatment plans incorporating lifestyle interventions and pharmacologic therapies. **Rheumatic Valve/Valve Heart Disease** • Perform organized and proper pericardial examination • Recognize the clinical features and complications of rheumatic valve disease. • Interpret diagnostic tests such as echocardiography for valvular heart disease. • Outline management strategies including medical, surgical, and preventive approaches.

Respiratory System	5-6	Dr. Ali Sattar Dr. Faris Mahmmod	**Pulmonary Embolism/DVT** • Describe the pathophysiology and risk factors for pulmonary embolism and deep vein thrombosis. • Diagnose PE/DVT using clinical assessment and imaging techniques. • Implement appropriate anticoagulation and thrombolytic therapies. **Asthma** • Explain the pathophysiology and triggers of asthma. • Perform a thorough assessment and diagnosis of asthma. • Develop and adjust treatment plans based on severity and patient response. **COPD** • Understand the pathophysiology, risk factors, and clinical presentation of COPD. • Diagnose COPD using spirometry and other diagnostic tools. • Manage COPD with pharmacologic and non-pharmacologic interventions. **ARDS/COVID-19/Pneumonia** • Recognize the clinical features

			and diagnostic criteria of ARDS, COVID-19, and pneumonia. • Implement appropriate management strategies for each condition. • Understand the indications for and use of mechanical ventilation and other supportive measures.
Neurology	12-13	• Assistant Prof Wassem Hashi • Dr. Abdullah Shaker	**Stroke** • Identify the types, risk factors, and clinical presentation of stroke. • Evaluate and interpret diagnostic imaging for stroke. • Implement acute and long-term management strategies, including thrombolysis and rehabilitation. **CNS Infection** • Recognize the signs and symptoms of CNS infections. • Diagnose CNS infections using appropriate laboratory and imaging studies. • Initiate appropriate antimicrobial therapy and supportive care. **ICH/SAH** • Differentiate between intracerebral hemorrhage and subarachnoid

			hemorrhage. • Assess and stabilize patients with ICH/SAH. • Plan and execute both medical and surgical management strategies. **Epilepsy/Symptomatic Seizure/Status Epilepticus** • Diagnose and classify types of epilepsy and seizures. • Implement acute management for status epilepticus. • Develop long-term treatment plans including pharmacologic and non-pharmacologic approaches. **Approach to Headache** • Differentiate between primary and secondary headaches. • Perform a detailed history and examination to identify headache etiologies. • Formulate a management plan for common headache disorders. **Approach to GBS and spinal cord disease** • Perform a detailed history and examination to identify etiologies and assess severity. • Formulate a management plan for patient with paralysis, including indication for

			ventilation. **Approach to coma** • Perform basic life support. • Perform a detailed history and examination to identify cause of coma. • Formulate a management plan for common causes.
Gastroenterology	6-7	• Assist Prof Ahmed Moyed Hussein • Dr. Alaa Mohammed Ali	**Upper GIT Bleeding/Peptic Ulcer** • Identify causes and clinical features of upper GI bleeding and peptic ulcer disease. • Perform diagnostic endoscopy and interpret findings. • Manage acute bleeding and plan for long-term prevention. **Jaundice and chronic liver disease** • Understand the differential diagnosis of jaundice. • Evaluate patients with jaundice through history, examination, and laboratory tests. • Plan appropriate management based on the underlying cause. **Gastroenteritis/GIT Infection** • Recognize the clinical presentation and causes

			of gastroenteritis and GI infections. • Diagnose based on clinical findings and laboratory results. • Implement supportive and specific antimicrobial treatments. **Ascites** • Understand the most common causes of Ascites. • Evaluate patients with ascites through history, examination, and laboratory tests. Observe peritoneal tap • Plan appropriate management based on the underlying cause.
Endocrine and metabolic diseases	6	• Dr. Alaa Mohammed Ali • Ali Sattar	**Diabetic Ketoacidosis** • Recognize the signs and symptoms of diabetic ketoacidosis. • Interpret laboratory findings to diagnose DKA. • Manage DKA with fluid replacement, insulin therapy, and electrolyte management. **Thyrotoxicosis/Hypothyroidism** • Differentiate between thyrotoxicosis and hypothyroidism based on clinical and laboratory findings. • Manage both conditions

			with appropriate pharmacotherapy and follow-up. **Chronic Complications of DM** • Identify the chronic complications associated with diabetes mellitus. • Implement screening and management strategies to prevent and treat these complications.
Renal System	4	• Dr. Alaa Mohammed Ali • Dr. Faris Mahmmod	**Acute Kidney Injury** • Recognize the causes and clinical features of acute kidney injury. • Diagnose AKI using clinical and laboratory criteria. • Develop a management plan to treat and prevent further kidney damage. **Chronic Renal Disease** • Understand the progression and complications of chronic kidney disease. • Implement strategies for early detection and slowing disease progression. • Plan for renal replacement therapies when necessary.
Emergency Medicine	2	• Dr. Bassam Ismail • Dr. Ahmed Mohammed Saeid	**Shock Management** • Identify different types of shock and their underlying causes. • Implement initial

			stabilization and advanced management strategies. • Monitor and adjust treatment based on patient response. **Basic Life Support/Advanced Life Support** • Perform basic life support (BLS) and advanced life support (ALS) techniques. • Understand the algorithms and protocols for BLS and ALS. • Simulate emergency scenarios to practice resuscitation skills.
Haematology	3-5	• Dr. Bassam Ismail	**Approach to anemia** • Perform proper examination and history intake to identify cause of anemia. • Understand the algorithms for diagnosis. • Develop treatment plan including blood transfusion. **Haematological malignancy** • Understand the algorithms and protocols for diagnosis and treatment of hematological malignancy. • Understanding methods of care in patient with immune defeceincy.
Rheumatological and connective	2	• Dr. Abdullah shaker	**Rheumatoid arthritis**

tissue disorders			• Identify pathophysiology and clinical presentation of RA. • Perform diagnostic test and interpret findings. • Put a plan for management of RA to reduce symptoms and prevent future disability . **SLE** • Identify causes and clinical presentation. • Perform diagnostic approach and interpret findings. • Manage acute presentation and plan for long-term management.

7. Learning Resources

Textbooks:

- Davidson's Principle and practice of Medicine
- Macleod's clinical examination
- Kumar and clarck's clinical medicine,
- Harrison's principles of internal medicine,
- ABC of clinical hematology
- Up to date and Medscape website

8. Additional Information

Contact:

- **رئيس الفرع:** أ.م.د. وسيم هاشم الخفاف : Wassem.qasim@uoninevah.edu.iq
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Location: فرع الطب الباطني

8. Appendix

Student Logbook.

Surgery for the sixth year

1.General Information:

- **Subject**: surgery
- **Code**: (639)
- **Credit hours**: 12 units equivalent to 360-hour practical.
- **Course Language**: English.

2.Syllabus:

Module: General surgery

- History taking & General examination.
- Abdominal examination and acute abdomen:
  -appendicitis, intestinal obstruction, acute mesenteric ischemia, pancreatitis
  -Jaundice.
  -Abdominal injury.
  -Stoma and colostomy.
- Head and neck examination:
  -Thyroid gland swelling and diseases, parotid gland, lymph node swelling.
- Chest examination:
  -Breast disease and mass, pneumothorax, pleural effusion, assess the trachea.
- Vascular examination:
  -Assess vascularity, assess DVT, diabetic foot, ulcer.
- Inguinal region and genitalia examination.
- Surgical incisions.
- Basic life support and advanced life support.

Module: Urology

- Urinary stone disease.
- Urinary tract infection.
- Scrotal pathology.
- Assessment of hematuria and renal, bladder tumor and prostatic tumor.
- Bladder outlet obstruction: benign prostatic obstruction, urethral stricture.
- Urinary tract injury: upper and lower urinary tract injury.
- Urethral catheter, ureteral stent and nephrostomy tube and digital rectal examination.

Module: Orthopedic

- **introduction to orthopedics:**
  - Common clinical symptoms and signs in orthopedics.
  - Basic imaging and other diagnostic tools relative to the subject.
  - General management outlines.

- **Introduction to fractures:**
  - terminology used in orthopedics.
  - general assessment of orthopedic trauma patient.
  - management methods in fractures and dislocations.
  - general and local complications in musculoskeletal trauma.

- **fractures and dislocations**:
  - diagnosis of common fractures and dislocations of the upper and lower limbs.
  - management outlines.
  - specific complications related to each musculoskeletal trauma and their management.
- **non-traumatic orthopedic problems**:
  - overuse syndromes.
  - musculoskeletal infections including acute and chronic osteomyelitis and septic arthritis.
  - hand infections.
  - common benign and malignant musculoskeletal tumors.
  - congenital and developmental musculoskeletal disorders.

Module: Pediatric surgery

- condition causing respiratory distress.
- condition causing neonatal intestinal obstruction.
- abdominal wall defect.
- pediatric tumors.
- pediatric surgical emergency.

Module: Neurosurgery

- neurological examination including Glasgow coma scale.
- Neurological disorder: diseases, injury and tumor.

- Neurocritical care
- Diagnostic modalities used neurological cases.

Module: Plastic surgery

- Burns (degrees, diagnosis).
- Benign & malignant skin conditions.
- Vascular anomalies (hemangiomas & malformations).
- Principles of skin grafts & skin flaps.
- Suture techniques & abnormal scars.
- Approach to wounds.

Module: anesthesia and emergency

- Management of multiply injured patient.
- Practical session on emergency medicine cases.
- Practical session on trauma cases simulation in skill lab.
- Clinical training in anesthesia & critical care.

- **Tutorials 1 every week: obstructive jaundice, breast, biliary tract, thyroid, acute abdomen, upper and lower GIT bleeding, hematuria, urinary stone, orthopedic trauma, pediatric surgery subject.**

3.Learning Objective:

Knowledge

1. **Anatomy and Physiology**
    - Understand the detailed anatomy and physiology relevant to common surgical procedures and conditions.
    - Recognize the anatomical relationships and variations important in surgical practice.
2. **Pathophysiology**
    - Comprehend the pathophysiology of common surgical diseases, including infections, inflammations, tumors, and traumatic injuries.
3. **Surgical Conditions**
    - Identify and describe the clinical features, diagnostic criteria, and management options for common surgical conditions (e.g., appendicitis, hernias, cholecystitis, peptic ulcer disease) and common urology and orthopedic cases.
4. **Preoperative and Postoperative Care**
    - Understand the principles of preoperative assessment, including risk stratification and optimization.
    - Know the common complications of surgery and their management.

5. **Surgical Techniques and Procedures**
    - Familiarize with the indications, contraindications, and techniques for common surgical procedures.
    - Understand the principles of minimally invasive surgery.
6. **Emergency Surgery**
    - Recognize the signs and symptoms of surgical emergencies and understand their initial management.

Skills

1. **Clinical Examination**
    - Perform a thorough and systematic surgical examination of patients, including history taking and physical examination.
    - Identify clinical signs of common surgical conditions.
2. **Diagnostic Skills**
    - Interpret common diagnostic investigations (e.g., blood tests, imaging studies) used in surgical practice.
    - Formulate differential diagnoses based on clinical findings and investigations.
3. **Basic Surgical Procedures**
    - Demonstrate competence in basic surgical skills, including suturing, knot tying, and Foley's catheter insertion and skin traction for fracture.
4. **Preoperative and Postoperative Management**
    - Conduct preoperative assessments and plan postoperative care.
    - Recognize and manage postoperative complications (e.g., wound infection, bleeding).
5. **Emergency Response**
    - Perform basic and advanced life support in surgical emergencies.
    - Initiate appropriate emergency management for acute surgical conditions.

Attitude

1. **Professionalism**
    - Demonstrate professionalism in all interactions with patients, families, and healthcare team members.
    - Maintain patient confidentiality and uphold ethical standards in surgical practice.
2. **Communication**
    - Communicate effectively with patients and their families about surgical conditions, treatment options, and perioperative care.
    - Collaborate and communicate efficiently with the surgical team and other healthcare professionals.
3. **Patient-Centered Care**
    - Show empathy and compassion in patient care.
    - Respect patient autonomy and involve patients in decision-making about their surgical care.

4. **Lifelong Learning**
    - Commit to continuous learning and professional development in surgery.
    - Seek and act on feedback to improve surgical knowledge and skills.

4. Outcomes for Educational Program

Knowledge

- **Anatomy & Physiology**: In-depth understanding of relevant anatomy and physiological processes.
- **Pathophysiology**: Knowledge of surgical diseases, infection control, and complications.
- **Diagnostic Techniques**: Proficiency in using and interpreting diagnostic tools.
- **Surgical Procedures**: Understanding of common surgeries, indications, and postoperative care.
- **Pharmacology**: Knowledge of surgical medications and their management.

Skills

- **Clinical Skills**: Conducting patient histories, exams, and prioritizing emergencies.
- **Technical Skills**: Basic surgical tasks like suturing and handling instruments.
- **Diagnostic Skills**: Ordering/interpreting tests, forming management plans.
- **Communication Skills**: Effectively communicating with patients, families, and the surgical team.

Attitude

- **Professionalism**: Adherence to ethical principles, showing compassion and respect.
- **Teamwork**: Collaborative working within a multidisciplinary team.
- **Lifelong Learning**: Commitment to continuous education and self-improvement.
- **Responsibility & Accountability**: Reliable and accountable in clinical duties.
- **Patient-Centered Care**: Prioritizing patient safety and addressing their holistic needs.

5.Course Overview

- **The course is composed of:**

Practical part

- **Duration**:

The students divided into 4 group and each group divided into sub-group.

For the practical part:

Clinical training: 10 weeks with 6 hour per day for each group.

- **Location**:

-For the practical part: training in the ward, outpatient and theatre of Al-Salam teaching hospital, Al-Jumhory teaching hospital, Al-Khansaa teaching hospital, the cardiac center, the Burn center, Ibn-Senna hospital and Radiology institute in addition to skill lab.

- **Format**:

- *For the practical part.*
  - Clinical Rotations
  - Bedside Teaching
  - Outpatient clinics, minor procedures and casting room
  - Case-Based Learning (CBL)
  - Problem-Based Learning (PBL)
  - Simulation Training
  - Skills Labs
  - Lectures
  - Ward Rounds
  - Clinical Tutorials
  - Peer Teaching and Learning

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: practical exam, problem-based case.
- **Summative Assessments**: end-course exam, end term exams and OSCE exam.
- **Continuous Feedback**: Provided throughout the course

-*Components of Assessment (through the course) (20%):*

➢ Written Exams (through the course): (8 marks of total grade).

- Course-exam: 3 exams, each one consists of 100 multiple choice question (MCQ).

- Objective Structured Clinical Examination (OSCE): (10 marks total grade).
  - Include 6 stations: which include history taking, oral, physical examination, skills (suturing) and instruments and station of emergency (ALS & BLS).
- Clinical Performance and Logbook (1 mark of total grade).
  - Clinical Performance: (Assessed by supervisors during clinical rotations based on direct observation, clinical skills, professional behavior, and participation).
  - Logbook: (Students maintain a logbook documenting clinical cases, procedures performed, and reflective entries. The logbook is reviewed and scored by faculty based on completeness, accuracy, and depth of reflection).
- Research Project and Presentation (1 mark of total grade).
  - Research Project: (Assessment of the research project, including the clarity of objectives, methodology, analysis, and conclusions. Scored by faculty members based on a standardized rubric).
  - Presentation: (Students present their research findings to peers and faculty. Evaluation is based on presentation skills, ability to answer questions, and quality of visual aids).

-*Components of Assessment (end term) (80%):*

- **Written Exams**:
  - End term Exam (40 %): (Comprehensive exam covering the entire course content, includes MCQs, SAQs, and case-based questions).
- **Objective Structured Clinical Examination (OSCE) final exam (40%)**:
  - Include 6 stations: which include history taking, oral, physical examination, skills (suturing) and instruments and station of emergency (ALS & BLS).

-Pass/Fail Criteria

- **Pass Mark**: 50%
- **Continuous Assessment**
- **Examples**: Assignments, quizzes, presentations, peer evaluations.
- **Blueprints of final exam. (Total 100)**

Unit	Problem solving MCQ
General surgery	**40**
Orthopedics	**22**
Urology	**12**
Cardiothoracic surgery	**6**
Pediatric surgery	**6**
Neurosurgery	**6**
Plastic surgery	**4**
Anesthesia and emergency	**4**

6.Instructional objectives of the clinical sessions:

Title	No. of sessions	Faculty member	Instructional objectives
General surgery	**18-20**	**General surgery member**	❖ General examination and abdominal examination: • ensure they understand the purpose and components of the examination, including inspection, auscultation, percussion, and palpation. • Students should identify normal and abnormal findings, such as masses, scars, distension, and abnormal sounds. • They need to practice effective percussion to assess for gas and fluid, check liver size, and identify splenic enlargement. • Proficiency in light and deep palpation to detect tenderness, guarding, organ

			enlargement, and masses is essential. • Students should also perform special tests like Murphy's sign for cholecystitis and assess for appendicitis and ascites. • Ensuring patient comfort and clear communication is crucial. • students should accurately document findings and begin interpreting them within clinical contexts. • Surgical incisions. • Stomas and colostomies • Palpate for hepatomegaly and how to measure liver span • Palpate for splenomegaly. • Palpate for kidneys. • Management of abdominal injuries (mechanisms features, assessment, indications for surgery, management). • Management of Acute Abdomen. • Managements of surgical jaundice (definition major causes clinical presentation, differential diagnosis laboratory tests, Imaging studies). • Discuss the Preoperative Preparations for surgical patients. • Common surgical equipment & instruments (common instruments, uses, common tubes, catheters, T- tubes, chest tube, Fogarty catheters, cannula & I.V. set. airway resuscitation instruments. • Perform a systematic breast examination, including inspection, palpation, and assessment of lymph nodes. • Exanimation of DVT, ulcer. • Examination of genitalia and inguinal region for hernia. • Examination of head & neck for neck

			mass, thyroid gland, lymph node and parotid gland. • **Discuss important point in** Position of trachea, Chest deformity desertion, Chest expansion, Signs of pneumothorax, Signs of pleural effusion
Urology	**6-8**	**Urology member**	• Urinary stone diseases: presentation, differential diagnosis, investigations, treatment options, complications and renal colic management in emergency room. • Understand the urinary tract infections like (pyelonephritis, pyonephrosis, renal abscess, cystitis, urethritis) and how to deal with it. • Discuss the urological injury as upper urinary injury and lower urinary injury. And how to assess these injuries and the management. • Understand the hematuria and how to assess the patient presented with hematuria. Discuss renal tumor and bladder tumor. • Scrotal pathologies: torsion of testis, epididymo-orchitis, scrotal traumas, Fournier's gangrene. - Painless scrotal pathologies: hydrocele, varicocele, epididymal cyst, spermatocele, testicular tumors, inguinal hernia. • Discuss the bladder outlet obstruction (definition, causes, investigation and management). • Foleys catheters: (definition, types, indications, contraindications, complications), double J stent and nephrostomy tube.
Orthopedics	**6-8**	**Orthopedics member**	• History taking in orthopedics • Clinical examination in orthopedic • Imaging in orthopedics • Upper limb and lower limb examination • Fracture definition, how they occur,

			displacement, classification, healing stages. • Perkins law in predicting time to union and consolidation of fracture • First aid in fracture management • Methods of fracture holding and their application technique, complications, advantages and disadvantages of each of them (POP, functional brace, skin traction, skeletal traction, internal & external fixation).
Pediatric surgery	**4-6**	**Dr. Bassam Khalil**	1.Conditions causing respiratory distress in neonates like: • congenital diaphragmatic hernia. • eventration of diaphragm. • Esophageal atresia. 2. Common Conditions of neonatal intestinal obstruction Including: • Anorectal malformations. • Meconium ileus. • Intestinal atresia. • NEC. 3. Abdominal wall defects including: • Omphalocele. • Gastroschisis. 4- Bladder and cloacal exstrophy. 5- Hirschsprung disease. 6- surgical problems like: • Infantile hypertrophic pyloric stenosis. • Intussusception. • inguinal hernia, hydrocele, undescended testes. 7- pediatric solid tumors including: • Wilms tumor. • Neuroblastoma. • Non-Hodgkin's Lymphoma. • Sacrococcygeal teratoma.
Cardiovascular and thoracic surgery	**4**	**Dr. Fawaz AlFaqe**	• History taking from a patient with suspected arterial disease. • Examination of a patient with suspected limb ischemia. • Examination and differentiation of different types of ulcers.

			• History and examination of a patient with suspected respiratory disease. • Taking care of a patient with a chest tube
Plastic surgery	**4**	**Dr. Faysal S. Shaeer**	• Burns (degrees, diagnosis) • Benign & malignant skin conditions • Vascular anomalies (hemangiomas & malformations) • Principles of skin grafts & skin flaps • Suture techniques & abnormal scars • Approach to wounds
Neurosurgery	**4**	**Dr. Aows M. Thabit**	• Neurological examination • Glasgow coma score • Clinical features & assessment of head injury patients
Emergency and accidents	**4**	**Dr. Mohnad Adnan**	Management of multiply injured patient: • Preparation and triage • Advanced trauma life support • Primary survey • AMPLE history • Secondary survey • Definitive care • Practical session on trauma cases simulation in skill lab. • Upper Airway Obstruction: - Anatomy of upper airway. - Causes of upper airway obstructions. - Management of upper airway obstruction by BLS & ALS. - Instruments used to relief upper airway obstruction

7.Tables of the Course

جدول دوام الجراحة للمرحلة السادسة العام الدراسي 2023- 2024

الاسابيع	الاحد		الاثنين		الثلاثاء			الاربعاء		الخميس	
groups	G1	G2	G1	G2	G1	G2	All	G1	G2	G1	G2
Time	1 to 9	1 to 9	1 to 9	1 to 9	12 to 9	12 to 9	2 to 12	1 to 9	1 to 9	1 to 9	1 to 9
.1	بولية	بولية	بولية	بولية	بولية	بولية	Seminar	جراحة	جراحة	جراحة	جراحة
.2	بولية	بولية	بولية	بولية	بولية	بولية	Seminar	جراحة	جراحة	جراحة	جراحة
.3	كسور	كسور	كسور	كسور	كسور	كسور	Seminar	جراحة	جراحة	جراحة	جراحة
.4	كسور	كسور	كسور	كسور	كسور	كسور	Seminar	جراحة	جراحة	جراحة	جراحة
.5	تجميلية	صدر	تجميلية	صدر	أشعة	أشعة	Seminar	جراحة	جراحة	جراحة	جراحة
.6	صدر	تجميلية	صدر	تجميلية	أشعة	أشعة	Seminar	جراحة	جراحة	جراحة	جراحة
.7	عصبية	اطفال	عصبية	اطفال	أشعة	أشعة	Seminar	جراحة	جراحة	جراحة	جراحة
.8	اطفال	عصبية	اطفال	عصبية	مهارات	مهارات	Seminar	جراحة	جراحة	جراحة	جراحة
.9	طوارئ	طوارئ	طوارئ	طوارئ	مهارات	مهارات	Seminar	جراحة	جراحة	جراحة	جراحة
.10			امتحان								

ممكن ان يستبدل التدريسيين جدولهم حسب الظروف والحاجة

جامعة نينوى / كلية الطب

جدول التدريب السريري المرحلة الرابعة للعام الدراسي ٢٠٢٣- ٢٠٢٤ .

يكون التدريب ألسريري في كل مادة عشرة أسابيع فقط , ويكون التدريب حسب تنسيب التدريسي

يبدأ الكورس الأول من ١٧ / ٩ / ٢٠٢٣ ويستمر لغاية ١٩ / ١١ / ٢٠٢٣ وكما مبين أدناه :

أ- الطب الباطني

ب- نسائية

ج - جراحة

يبدأ الكورس الثاني من ٢٦ / ١١ / ٢٠٢٣ ويستمر لغاية ٢٥ / ٢ / ٢٠٢٤ وكما مبين أدناه :

(تم احتساب فترة امتحانات نصف السنة والعطلة الربيعية ضمن هذا الكورس)

أ- جراحة

ب- الطب الباطني

ج - نسائية

يبدأ الكورس الثالث من ٣ / ٣ / ٢٠٢٤ ويستمر لغاية ٥ / ٥ / ٢٠٢٤ وكما مبين أدناه :

أ- نسائية

ب- جراحة

ج - الطب الباطني

8.Learning Resources

- Textbooks: Baily and Love's Textbook / Short Practice of Surgery
- Brows Textbook of Clinical examination.
- Up to date
- Medscape website

9.Additional Information

Contact: alaa.turki@uoninevah.edu.iq

Address: surgery department

10.Appendix

Obstetrics and gynecology for the sixth year

1. General Information:

- **Subject**: obstetrics and gynecology
- **Code: (640**)
- **Credit hours :** 10 units.
- **Coarse Language**: English.

2.Syllabus:

Clinical Training Syllabus for Medical Students: Obstetrics and Gynecology

First 5 Weeks: Obstetrics Focus

Week 1: Introduction to Obstetrics and Primary Health Care

- **Clinical Tours:** Introduction to labor and delivery wards, antenatal clinic, and primary health care.
- **Patient Interaction:** Basic history taking and examination of pregnant women.
- **Theatre:** Observing normal vaginal deliveries.
- **Tutorial/Seminar:** Basics of prenatal care, physiological changes in pregnancy.
- **Assessment Focus:** History taking, antenatal care basics.

Week 2: Antenatal Care and Common Obstetric Conditions

- **Clinical Tours:** Follow-up visits in antenatal clinic, patient education.
- **Patient Interaction:** Conducting antenatal check-ups under supervision.
- **Theatre:** Observing cesarean section and cervical circulage.
- **Tutorial/Seminar:** Hypertensive disorders in pregnancy, gestational diabetes.
- **Assessment Focus:** Management of common antenatal conditions.

Week 3: Intrapartum Care

- **Clinical Tours:** Labor and delivery suite, triage in labor ward.
- **Patient Interaction:** Monitoring labor, understanding labour care Guide.
- **Theatre:** Assisting in normal and instrumental deliveries and assistant vaginal Breech delivery.
- **Tutorial/Seminar:** Stages of labor, management of normal and Abnormal presentation and position in labour labor.
- **Assessment Focus:** Labor management, labour care Guide interpretation.

Week 4: Postpartum Care and Complications

- **Clinical Tours:** Postnatal wards, newborn care.
- **Patient Interaction:** Postpartum check-ups, breastfeeding support and Discussion about contraception.
- **Theatre:** Observing postpartum procedures (e.g., repair of perineal tears).
- **Tutorial/Seminar:** Postpartum hemorrhage, infections, and mental health.
- **Assessment Focus:** Postpartum care, complication management.

Week 5: Obstetric Emergencies

- **Clinical Tours:** Emergency obstetric unit.
- **Patient Interaction:** Managing obstetric emergencies under supervision.
- **Theatre:** Observing emergency procedures (e.g., cesarean sections, manual removal of placenta, cesarean Hysterectomy and deep uterine rupture repair)
- **Tutorial/Seminar:** Eclampsia, shoulder dystocia, obstetric hemorrhage.
- **Assessment Focus:** Emergency management, rapid response.

Assessment Exam: Comprehensive exam covering all obstetric topics from the first 5 weeks.

Second 5 Weeks: Gynecology Focus

Week 6: Introduction to Gynecology and Primary Health Care

- **Clinical Tours:** Introduction to gynecology wards, outpatient clinics.
- **Patient Interaction:** Basic history taking and examination of gynecological patients.
- **Theatre:** Observing common gynecological surgeries (e.g., Hysterectomy, ovarian cystectomy).
- **Tutorial/Seminar:** Basics of gynecological history and examination.
- **Assessment Focus:** History taking, basic gynecological examination.

Week 7: Benign Gynecological Conditions and contraception

- **Clinical Tours:** Follow-up visits in outpatient clinic.
- **Patient Interaction:** Management of common benign conditions (e.g., fibroids, ovarian cysts) and different methods of contraceptions.
- **Theatre:** Observing surgeries for benign Conditions in addition to IUCD and implanon insertion.
- **Tutorial/Seminar:** Menstrual disorders, pelvic pain, benign tumors, conception.
- **Assessment Focus:** Management of benign conditions.

Week 8: Gynecological Infections and STDs

- **Clinical Tours:** STD clinics, out patient clinics.
- **Patient Interaction:** Diagnosis and management of infections.
- **Theatre:** Observing relevant procedures (e.g., laparoscopy for PID).

- **Tutorial/Seminar:** Vaginitis, pelvic inflammatory disease, STDs.
- **Assessment Focus:** Diagnosis and management of infections.

Week 9: Reproductive Endocrinology and Infertility

- **Clinical Tours:** Infertility clinics, endocrinology units.
- **Patient Interaction:** Infertility workups, hormonal assessments.
- **Theatre:** Observing procedures (e.g., hysteroscopy, laparoscopic surgery).
- **Tutorial/Seminar:** Infertility, PCOS, endometriosis.
- **Assessment Focus:** Workup and management of infertility and endocrine disorders.

Week 10: Gynecologic Oncology

- **Clinical Tours:** Oncology wards, outpatient oncology clinics.
- **Patient Interaction:** Counseling and management of cancer patients.
- **Theatre:** Observing oncological surgeries (in addition to learning to take pap smear endomaterial biopsy and colposcope)
- **Tutorial/Seminar:** Cervical, ovarian, endometrial cancers.
- **Assessment Focus:** Diagnosis and management of gynecological cancers.

Assessment Exam: Comprehensive exam covering all gynecological topics from the second 5 weeks.

3. Learning Objective:

Knowledge

- The course aims to provide students with necessary knowledge regarding the common condition in obstetrics and gynecology to gain basic clinical skills required for their diagnosis and to make students able to deal with emergency conditions.

Skills

- **Clinical Examination**: Students will perform comprehensive obstetrics and gynecological physical examinations, including newborn, infant, and adolescent assessments.
- **Communication**: Students will demonstrate effective communication skill with the patient.
- **Procedures**: Students will competently perform basic procedures such as fundal height, fetal heart monitoring, taking vaginal swab and pelvic examination under supervision.

Attitudes

- **Empathy and Compassion**: Students will exhibit empathy and compassion in their interactions with patient.
- **Professionalism**: Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.
- **Cultural Sensitivity**: Students will show cultural sensitivity and respect for the diverse backgrounds of patients and their families.

4. Outcomes for Educational Program

Knowledge

- **Comprehensive Understanding**: clinical features, investigations, differential diagnosis, treatment and prognosis of different obstetrics and gynecology conditions. Management of critical and urgent cases.
- **Evidence-Based Practice**: Graduates will be able to apply evidence-based guidelines and best practices in patient care.

Skills

- **Clinical Competence**: Graduates will be proficient in performing a wide range of pediatric assessments and interventions, including advanced procedures.
- **Diagnostic Skills**: Graduates will accurately diagnose and develop management plans for a variety of pediatric conditions.

Attitudes

- **Ethical Practice**: Graduates will consistently adhere to ethical principles in patient care, prioritizing the well-being and rights of human.
- **Patient-Centered Care**: Graduates will provide patient-centered care that involves families in decision-making and respects their preferences and needs.
- **Continuous Improvement**: Graduates will engage in lifelong learning and continuous professional development to stay current with advances in obstetrics and gynecology .

5.Course Overview

- **The course is composed of practical part as follow:**

- **Duration**:
    - Clinical training in obstetrics: 5 weeks
    - Clinical training in gynecology: 5 weeks
    - Total training is 10 weeks
- **Location**:
    - Outpatient, theatre and wards of Al-Salam and Al-Batool teaching hospitals in addition to private hospital like CMC hospital in Erbil, in addition to skill lab.
- **Format**:
    - Clinical Rotations
    - Bedside Teaching
    - Case-Based Learning (CBL)
    - Problem-Based Learning (PBL)
    - Simulation Training
    - Skills Labs
    - Lectures and Seminars
    - Ward Rounds
    - Clinical Tutorials
    - Peer Teaching and Learning

For students whose training is in the operating theaters, they are divided into small groups The training is as follows:

A detailed explanation of each surgical instrument: its scientific name, how to use it, and its purpose to used and used by every student.

A detailed explanation of the surgical sutures: each type, the purpose of its use and how to use it surgical nodes work.

A detailed explanation of the patient's preparation for the surgery

- A simplified explanation of the type of anesthesia and a detailed explanation of all complications during or after the operation.
- Watching or even participating in the surgical operations that are performed by the teaching staff or a doctor with a detailed explanation of the

reason for the operation, the steps in detail with a simple explanation to remind them of the practical anatomy associated with the surgery.

- Asking each student to handle the instruments and correct way of the surgical instrument and how to sew Wound and different types of surgical knot.

Encourages students to participate and debate based on evidence, to raise questions and try to answer them from the student to know their information and their way of thinking. The discussion is also completed and shared pictures of similar cases satisfactory via a website dedicated to the branch on the Telegram so that the student can submit questions, answer them, give homework, or make a quiz test for students, and give time for the student to answer it.

Ask students to prepare daily goals the day before (to stimulate self-directed learning) to discuss them with the practical side with the teacher and the rest of the colleagues through question and answer or by giving A classic example scenario for various pathological conditions and examples that need to solve the problem clinically . All students are asked to participate and interact to solve the problem to know the extent of strategic thinking for students.

Conducting oral exams in which the student is the examiner and he is the one who puts the questions and discusses the rest colleagues' teaching-self or by giving a specific disease condition and conclusions and questions are built consequences by the students themselves (snow ball teaching).

Skills Lab:

Students attend on Wednesday of every week in the skills lab for training on the ideal methods for clinical examination and emergency cases and the application of these methods by the teaching staff on dolls, and then the student will practice the methods of female examination on dolls.

Seminar or tutorials

A number of important topics that need training and practice are selected and given in a hall dedicated affiliated to the Obstetrics and Gynecology branch at the end of each week of training, these topics are either Prepared and explained by the teacher or prepared by a group of students under the supervision of the teacher.

It is presented by them and discussed with the rest of the classmates. Or slides are provided for sick cases and a simplified test for students to know their information, their way of thinking and their analysis of this information or showing films about the different methods of childbirth or how to deal with cases of childbirth or postpartum and explain it in detail.

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: 3 exam at the course time.
- **Summative Assessments**: end term exams, OSCEs…ets
- **Continuous Feedback**: Provided throughout the course
- **Grading System**

-*Components of Assessment:*

Course exam: includes

- Written Exams (8 marks)
- Objective Structured Clinical Examination (OSCE) (10 marks)
- Clinical Performance and Logbook (1 mark)
- Research Project and Presentation (1 marks)

-*Detailed Breakdown*

- **Written Exams** :
  - Course Exam: which include 3 exams include 200 multiple-choice questions (MCQs).
- **Objective Structured Clinical Examination (OSCE)**:
  - Stations: Typically includes 5 stations, each assessing different clinical skills (e.g., history taking, physical examination, communication, and procedural skills).
- **Clinical Performance and Logbook**:
  - Clinical Performance: (Assessed by supervisors during clinical rotations based on direct observation, clinical skills, professional behavior, and participation)

- Logbook: (Students maintain a logbook documenting clinical cases, procedures performed, and reflective entries. The logbook is reviewed and scored by faculty based on completeness, accuracy, and depth of reflection)

❖ **Research Project and Presentation**:

- Research Project: (Assessment of the research project, including the clarity of objectives, methodology, analysis, and conclusions. Scored by faculty members based on a standardized rubric)
- Presentation: (Students present their research findings to peers and faculty. Evaluation is based on presentation skills, ability to answer questions, and quality of visual aids)

Final exam: includes:

- Which only include the practical part: 10 OSCE station each station contain (oral , history taking, communication, physical examination, suturing skill and instruments) 40 marks
- Ministerial exam: 40 marks

-Pass/Fail Criteria

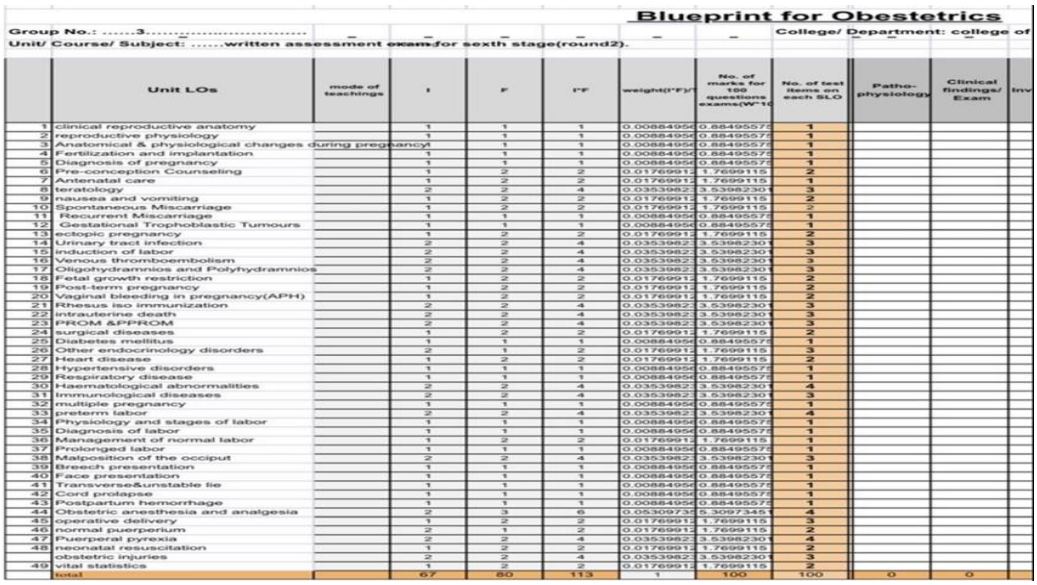
- **Pass Mark**: 50%**End course Blue print**

blueprint of gynecology

Group No.: .....3..... College/ Department: college of medicine/ dept. of surgery

Unit/ Course/ Subject: .....written assessment exam for 6th stage(round2). Year: 2022/2023

	Unit LOs	no. of lec.	I	F	I*F	weight(I*F)/	No. of marks for 100 questions exams(W*100)	No. of test items on each SLO	Basic Sciences	Patho-physiology	Clinical findings/ Exam	Investigati	Diagnosis	Mana
1	Embryology of the female genital tract	1	1	1	0.009901	1.0	1							
2	2. Normal anatomy of female reproductive system	1	1	1	0.009901	1.0	1							
3	3. Abnormalities of female genitalia	1	1	1	0.009901	1.0	1							
4	4. Intersex	1	1	1	0.009901	1.0	1							
5	Normal puberty and menstrual cycle	1	1	1	0.009901	1.0	1							
6	2. Precocious puberty	1	1	1	0.009901	1.0	1							
7	3. Delayed puberty	1	1	1	0.009901	1.0	1							
8	4. Primary amenorrhea	1	2	2	0.019802	2.0	2							
9	Secondary amenorrhea	2	2	4	0.039604	4.0	4							
10	6. Abnormal uterine bleeding and its management	3	3	9	0.089109	8.9	9							
11	7. Polycystic ovarian syndrome	2	3	6	0.059406	5.9	5							
12	8. Hirsutism and virilism	1	1	1	0.009901	1.0	1							
13	Subfertility and its management	1	1	1	0.009901	1.0	1							
14	2. Dysmenorrhea and premenstrual syndrome	1	1	1	0.009901	1.0	1							
15	3. Endometriosis and adenomyosis	2	1	2	0.019802	2.0	2							
16	Hydatidiform mole	1	1	1	0.009901	1.0	1							
17	2. Choriocarcinoma	1	1	1	0.009901	1.0	1							
18	Genital tract infection	3	3	9	0.089109	8.9	9							
19	2. Sexually transmitted diseases	1	2	2	0.019802	2.0	2							
20	3. Pelvic inflammatory diseases	1	1	1	0.009901	1.0	1							
21	Birth control methods	2	3	6	0.059406	5.9	5							
22	2. Combine contraception	2	1	2	0.019802	2.0	2							
23	3. Progesterone only contraception	2	1	2	0.019802	2.0	2							
24	4. Intrauterine contraception	2	1	2	0.019802	2.0	2							
25	5. Barrier method of contraception	1	1	1	0.009901	1.0	1							
26	6. Natural family planning	2	2	4	0.039604	4.0	4							
27	7. Sterilization	1	1	1	0.009901	1.0	2							
28	Postmenopausal bleeding and endometrial carcinoma	2	2	4	0.039604	4.0	4							
29	2. Fibroid and endometrial polyps	2	3	6	0.059406	5.9	6							
30	Benign lesions of the cervix	1	1	1	0.009901	1.0	1							
31	4. Precancerous and carcinoma of the cervix	1	1	1	0.009901	1.0	1							
32	5. Benign and premalignant lesions of vulva and vagina	1	1	1	0.009901	1.0	1							
33	6. Carcinoma of vulva and vagina	1	1	1	0.009901	1.0	1							
34	7. Ovarian cysts	3	3	9	0.089109	8.9	9							
35	8. Ovarian cancer	1	1	1	0.009901	1.0	1							
36	Urinary incontinence	2	1	2	0.019802	2.0	2							
37	2. Uterovaginal prolapse	2	2	4	0.039604	4.0	4							
38	Preoperative preparation and postoperative complications	2	1	2	0.019802	2.0	2							
39	2. Laparoscopy and hysteroscopy	1	2	2	0.019802	2.0	2							
40	3. Medico-legal aspects in obstetrics and gynecology	1	1	1	0.009901	1.0	1							
41	Hormone replacement therapy	1	1	1	0.009901	1.0	1							
	total	60	60	101	1	100.0	100	0	0	0	0	0	0	



Blueprint for Obestetrics

Group No.: .....3..... College/ Department: college of

Unit/ Course/ Subject: .....written assessment exam for sexth stage(round2).

	Unit LOs	mode of teachings	I	F	I*F	weight(I*F)/I	No. of marks for 100 questions exams(W*1	No. of test items on each SLO	Patho-physiology	Clinical findings/ Exam	Inv
1	clinical reproductive anatomy		1	1	1	0.00884956	0.88495575	1			
2	reproductive physiology		1	1	1	0.00884956	0.88495575	1			
3	Anatomical & physiological changes during pregnancy		1	1	1	0.00884956	0.88495575	1			
4	Fertilization and implantation		1	1	1	0.00884956	0.88495575	1			
5	Diagnosis of pregnancy		1	1	1	0.00884956	0.88495575	1			
6	Pre-conception Counseling		1	2	2	0.01769912	1.7699115	2			
7	Antenatal care		1	2	2	0.01769912	1.7699115	1			
8	teratology		2	2	4	0.03539823	3.53982301	3			
9	nausea and vomiting		1	2	2	0.01769912	1.7699115	2			
10	Spontaneous Miscarriage		1	2	2	0.01769912	1.7699115	2			
11	Recurrent Miscarriage		1	1	1	0.00884956	0.88495575	1			
12	Gestational Trophoblastic Tumours		1	1	1	0.00884956	0.88495575	1			
13	ectopic pregnancy		1	2	2	0.01769912	1.7699115	2			
14	Urinary tract infection		2	2	4	0.03539823	3.53982301	3			
15	induction of labor		2	2	4	0.03539823	3.53982301	3			
16	Venous thromboembolism		2	2	4	0.03539823	3.53982301	3			
17	Oligohydramnios and Polyhydramnios		2	2	4	0.03539823	3.53982301	3			
18	Fetal growth restriction		1	2	2	0.01769912	1.7699115	2			
19	Post-term pregnancy		1	2	2	0.01769912	1.7699115	2			
20	Vaginal bleeding in pregnancy(APH)		1	2	2	0.01769912	1.7699115	2			
21	Rhesus iso immunization		2	2	4	0.03539823	3.53982301	3			
22	intrauterine death		2	2	4	0.03539823	3.53982301	3			
23	PROM &PPROM		2	2	4	0.03539823	3.53982301	3			
24	surgical diseases		1	2	2	0.01769912	1.7699115	2			
25	Diabetes mellitus		1	1	1	0.00884956	0.88495575	1			
26	Other endocrinology disorders		2	1	2	0.01769912	1.7699115	3			
27	Heart disease		1	2	2	0.01769912	1.7699115	2			
28	Hypertensive disorders		1	1	1	0.00884956	0.88495575	1			
29	Respiratory disease		1	1	1	0.00884956	0.88495575	1			
30	Haematological abnormalities		2	2	4	0.03539823	3.53982301	4			
31	Immunological diseases		2	2	4	0.03539823	3.53982301	3			
32	multiple pregnancy		1	1	1	0.00884956	0.88495575	1			
33	preterm labor		2	2	4	0.03539823	3.53982301	4			
34	Physiology and stages of labor		1	1	1	0.00884956	0.88495575	1			
35	Diagnosis of labor		1	1	1	0.00884956	0.88495575	1			
36	Management of normal labor		1	2	2	0.01769912	1.7699115	1			
37	Prolonged labor		1	1	1	0.00884956	0.88495575	1			
38	Malposition of the occiput		2	2	4	0.03539823	3.53982301	3			
39	Breech presentation		1	1	1	0.00884956	0.88495575	1			
40	Face presentation		1	1	1	0.00884956	0.88495575	1			
41	Transverse&unstable lie		1	1	1	0.00884956	0.88495575	1			
42	Cord prolapse		1	1	1	0.00884956	0.88495575	1			
43	Postpartum hemorrhage		1	1	1	0.00884956	0.88495575	1			
44	Obstetric anesthesia and analgesia		2	3	6	0.05309735	5.30973451	4			
45	operative delivery		1	2	2	0.01769912	1.7699115	3			
46	normal puerperium		2	1	2	0.01769912	1.7699115	2			
47	Puerperal pyrexia		2	2	4	0.03539823	3.53982301	4			
48	neonatal resuscitation		1	2	2	0.01769912	1.7699115	2			
	obstetric injuries		2	2	4	0.03539823	3.53982301	3			
49	vital statistics		1	2	2	0.01769912	1.7699115	2			
	total		67	80	113	1	100	100	0	0	

6. Instructional Objective of the lectures:

Not applicable, there is no theoretical part.

7. Instructional objectives of the clinical sessions:

No.	Session subject	No. of sessions	Teaching Faculty	Instructional Objectives
	1. Obstetrics Training Objectives	4 2	Dr. Dhukaa Dr. Yusra Dr. Tahani Dr. Mays Dr. Islam Dr. Nawar	• **Week 1: Introduction to Obstetrics and Primary Health Care** o Understand the organization and function of labor and delivery wards and antenatal clinics. o Conduct basic obstetric history taking and examinations. o Identify and use common obstetric instruments. • **Week 2: Antenatal Care and Common Obstetric Conditions** o Manage antenatal

				care, including routine check-ups and education. ○ Recognize and manage common antenatal conditions like hypertensive disorders and gestational diabetes. ○ Observe and understand cesarean sections.
		2	Dr. Shaymaa Dr. Dalya	• **Week 3: Intrapartum Care** ○ Monitor and manage labor using tools like the labour care Guide. ○ Assist in normal and instrumental deliveries. ○ Understand the stages of labor and management of normal and abnormal labor.
		1	Dr. Heba	• **Week 4: Postpartum Care and Complications** ○ Conduct postpartum check-ups and provide breastfeeding support. ○ Manage common postpartum complications like hemorrhage and infections. ○ Understand the basics of newborn care.
		2	Dr. Dalya	• **Week 5: Obstetric Emergencies** ○ Recognize and manage obstetric emergencies such as eclampsia and shoulder dystocia. ○ Observe and

				participate in emergency procedures. ○ Understand rapid response and emergency management principles.
	2. Gynecology Training Objectives:	4 4 4	Dr. Yusra Dr. Dalya Dr. Fatima Dr. Shahad Dr. Tahani Dr. Heba Dr. Dhukaa Dr. Yusra Dr. Dalya	• **Week 6: Introduction to Gynecology and Primary Health Care** ○ Understand the organization and function of gynecology wards and clinics. ○ Conduct basic gynecological history taking and examinations. ○ Identify and use common gynecological instruments. • **Week 7: Benign Gynecological Conditions** ○ Manage common benign gynecological conditions such as fibroids and ovarian cysts. ○ Observe and understand surgeries for benign conditions. ○ Recognize and manage menstrual disorders and pelvic pain. • **Week 8: Gynecological Infections and STDs** ○ Diagnose and manage gynecological infections and sexually transmitted diseases. ○ Observe procedures related to infections, like laparoscopy for PID.

		1 1	Dr. Heba Dr. Yusra	○ Understand the treatment and prevention of STDs. • **Week 9: Reproductive Endocrinology and Infertility** • Conduct infertility workups and hormonal assessments. • Manage conditions like PCOS and endometriosis. • Understand and observe procedures related to reproductive endocrinology. • **Week 10: Gynecologic Oncology** • Diagnose and manage gynecological cancers such as cervical, ovarian, and endometrial cancers. • Observe and understand oncological surgeries. • Provide counseling and management for cancer patients.
	3. Operating Theater Training Objectives:	4 1	Dr. Dalya Dr. Heba Dr. Tahani Dr. Shaymaa	• **Surgical Instruments:** • Learn the scientific names, uses, and handling techniques of surgical instruments. • Practice using instruments under supervision. • **Surgical Sutures:** • Understand the different types of surgical sutures, their purposes, and how to use them. • Practice surgical knots and suturing techniques. • **Patient Preparation:** • Learn how to prepare patients for surgery, including preoperative assessments and procedures. • **Anesthesia:**

				• Understand different types of anesthesia and their indications. • Learn about potential complications during and after anesthesia. • **Surgical Procedures:** • Observe and participate in surgeries, with detailed explanations from teaching staff. Review practical anatomy related to surgical procedures
	4. Skills Lab Objectives:	2	Dr. Shahad Dr. Zahraa	• **Weekly Skills Training:** • Attend weekly sessions to practice clinical examination and emergency procedures on mannequins. Apply learned techniques in a simulated environment
	5. Seminar and Tutorial Objectives	6	Dr. Dalya Dr. Dhukaa Dr. Tahani Dr. Yusra Dr. Heba	• **Weekly Seminars:** • Participate in seminars on key topics, presented by faculty or students. • Engage in discussions and case presentations to reinforce learning.
	6. Self-Directed Learning Objectives:	3	Dr. Dalya Dr. Heba Dr. Tahani	• **Daily Goals:** • Set and discuss daily learning objectives to stimulate self-directed learning. • Engage in question-and-answer sessions and clinical problem-solving scenarios.

8. Tables of the Course

جدول الدوام الأسبوعي لفرع النسائية والتوليد

المرحلة	الأحد ٣/٣	الاثنين ٣/٤	الثلاثاء ٣/٥	الأربعاء ٣/٦	الخميس ٣/٧
الرابعة	الكروب كاملاً قاعة د. خليل الشهبندر م. د. فاطمة وليد				محاضرتان نظري في القاعات المحددة من قبل التسجيل م. د. تهاني علي
الخامسة			محاضرتان نظري في قاعة الدكتور طاهر الدباغ أ م. د. يسرى طاهر	كروب ١ استشارية م. البتول د. اسيل سالم كروب ٢ استشارية م. السلام د. زهراء رياض	امتحان نهاية الكورس في قاعة الفرع في الكلية
السادسة	تيتوريال في قاعة الفرع م. د. داليا مظفر	استشارية م. البتول د. سحر سالم	ردهات م. السلام د. سوزان خالد	عمليات م. السلام د. شهد شهاب	المؤتمر الطلابي في الكلية

ملاحظة: يبدا الدوام الساعة الثامنة والنصف صباحاً إلى الساعة الحادية عشرة ثم يستأنف الساعة الحادية عشرة والنصف (بعد استراحة لنصف ساعة) إلى الساعة الثانية ظهراً، دوام الاستشارية يكون مستمراً من الساعة الثامنة والنصف صباحاً وذلك نظراً لطبيعة الدوام في الاستشارية.

9. Learning Resources

- Ten teachers textbook for obstetric.
- Ten teachers textbook for gynecology.
- William's textbooks for obstetrics and gynecology.
- Aurora MCQ books.
- MRCOG guidelines.
- NICE guidelines.

10. Additional Information

Contact: dalya.abdulrahman@uoninevah.edu.iq , Mobile: 07740854868 رئيسة الفرع

Heba.saeed@uoninevah.edu.iq , Mobile: 07741858008 مقررة الفرع

Location: فرع النسائية والتوليد

11. Appendix

جدول بسيمنارات الطلاب:

السيد عميد كلية الطب المحترم
السادة أعضاء مجلس الكلية المحترمون
م/سيمنارات طلابية

يقيم فرع النسائية والتوليد وعلى رحاب قاعة الفرع مجموعة من السيمنارات الطلابية والتي يعدها ويقدمها كوكبة من طلاب المرحلة السادسة كروب C وتحت اشراف تدريسيات الفرع كما سيذكر لاحقا وذلك في يوم الأحد المصادف ٢٠٢٤/٣/٣

عنوان السيمنارات	التدريسي المشرف	اسماء الطلاب
Labour care Guide	ا م. د. ذكاء عباس	أيوب خير الدين احمد يوسف مقداد نافع بيداء صبيحي علاوي ريم أحمد حمود فاطمة قتيبة ثامر
HTN in pregnancy	م. د. داليا مظفر عبدالرحمن	منار خالد أحمد انسام محمود سلطان هالة سعد حسن هند محسن بتول ليث

للتفضل بالعلم وتشريفنا بالحضور مع الشكر الجزيل.....

م. د. داليا مظفر عبدالرحمن
رئيسة فرع النسائية والتوليد
٢٠٢٤/٣/ ٢

نسخة منه الى:
- مكتب السيد العميد المحترم
- صادرة فرع النسائية والتوليد

تدريب الطلاب على الخياطة

دخول الطلاب الى صالات العمليات

مشاركة الطلاب في الجولات على المرضى

اطلاع الطلاب على اهم التطورات في حالات المرضى الذين اطلعو على حالاتهم في الردهات

Back
كروب التوليد/ المرحلة الرابعة ٢٠٢٤
396 members, 109 online
الى الطلبة الذين حضروا معي خفارة يوم الاحد
ectopic pregnancy
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Message

Pediatrics for the sixth-year stage

1.General Information:

- **Subject**: Pediatrics
- **Code**: (641)
- **Credit hours**: 10 units equivalent to 250 hours (10 weeks per course, five days per week, five hours per day)
- **Course Language**: English.

2.Syllabus:

-**Pediatric Growth and Development**

- Nutrition disorders
- Neonatal history and examination
- Neonatal jaundice
- GIT system
- Respiratory system
- Cardiovascular system
- Hematological system and oncology
- Infectious diseases
- Endocrine system
- Neurological system
- Renal system
- Critically ill child
- Teaching in a specialized center (
- **Hematological center in abn al atheer and al hadba center)**
- **Dialysis center**
- **Blood banks**
- Communication skills
- Miscellaneous cases and review
- Formative assessment
- Primary health center (Childhood immunization, protocols for dehydration, respiratory illness)

3.Learning Objective:

Knowledge

• **Pediatric Growth and Development:** Students will be able to describe the normal physical, cognitive, and development milestones for children from birth to adolescence.

They will recognize key developmental stages (e.g., motor skills, fine motor skills, language , hearing and visual acquisition, social interactions)..

• **Failure to thrive**: Students will be able to define FTT. understand the criteria for diagnosing FTT, and list the types of FTT. Can explain the etiology of FTT. Describe the approach to a child with FTT.

• **Diseases of systems:**

Students will identify signs and symptoms of common diseases in children (e.g., respiratory infections, gastrointestinal disorders).

They will understand the methods of diagnosing these diseases (e.g., physical examination, laboratory tests).

Students will learn about treatment options, preventive methods and potential complications associated with pediatric illnesses.

• **Primary health center(PHC) teaching:** Students will learn about vaccinations, including their purpose, types, and importance. They will understand the methods of vaccine administration (e.g., intramuscular, subcutaneous) and the recommended schedules for childhood immunizations. Students will be aware of common side effects associated with vaccines. Students will learn about protocols for dehydration, respiratory illness and services delivered in PHC.

- **Evidence-Based Practice:** Students will be able to identify evidence-based guidelines and best practices in pediatric care.
- **lifelong learning**: Students will be encouraged for lifelong learning, by
    - **Critical Thinking:**

Encourage students to question assumptions, analyze information, and evaluate evidence critically. Incorporate clinical case scenarios of the studied pateints , problem-solving exercises, and discussions that require thoughtful analysis.

- **Independent Learning**:

Foster self-directed learning by providing resources such as updated textbooks, online courses, and research articles. Encourage students to explore topics beyond the curriculum and pursue their interests.

- **Technology Integration:**

Using technology tools for learning, such as educational apps, virtual simulations, and online platforms. Teach digital literacy skills, including effective internet searching and evaluating

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills

2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses

3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance analysis of laboratory and imaging studies

Skills:

Clinical Examination:

Students will perform comprehensive pediatric physical examinations on newborns, infants, and children

They will learn techniques for assessing vital signs, growth parameters, and developmental milestones and the skills needed in the log book

Communication:

Students will demonstrate effective communication skills when interacting with children of different ages and their families. They will learn to convey information clearly, listen actively, and address concerns empathetically.

- **Skills objectives of the program includes**

- Greeting the patient
- Introduction of student name and affiliation to the parents
- Asking permission to take history or examine the patient

At the end of interview thanking the parents for their agreement to take history or examine the patient and wishing for improvement of the patient

- **Emotional and Value Objectives:**
- Respect for the patient and his companions
- Dealing gently with children
- Good behavior with workers in the sites

Procedures:

Students will competently perform basic pediatric procedures such as growth and development assessment and

Attitudes:

Empathy and Compassion:

Students will exhibit empathy and compassion in their interactions with pediatric patients and their families.

They will understand the emotional impact of illness on children and caregivers.

Professionalism:

Students will demonstrate professional behavior, including punctuality, respect, and ethical decision-making.

They will uphold professional standards in their clinical practice.

Cultural Sensitivity:

Students will show cultural sensitivity and respect for diverse backgrounds.

They will recognize cultural differences and adapt their approach accordingly.

- **Ethical Practice**: students will consistently adhere to ethical principles in pediatric care, prioritizing the well-being and rights of children.
- **Patient-Centered Care**: students will provide patient-centered care that involves families in decision-making and respects their preferences and needs.

lifelong learning:

Continuous Improvement: Students will engage in lifelong learning and continuous professional development to stay current with advances in pediatric medicine.

4. Outcomes for Educational Program

Knowledge:

- **Outcome 1:** Students will be able to apply their knowledge of infant feeding practices, childhood immunization schedules, and typical childhood development milestones to provide comprehensive care for children from birth to adolescence.
- **Outcome 2:** Students will be able to identify signs and symptoms of common pediatric diseases across various body systems, analyze potential diagnoses, and understand common treatment strategies, preventive methods, and disease complications.
- **Assessment:** Students will be assessed through formative and summative theoretical and clinical examinations

Skills:

- **Outcome 3:** Students will demonstrate proficiency in performing comprehensive pediatric physical examinations, including newborn, infant, and adolescent assessments, using appropriate techniques.
- **Outcome 4:** Students will effectively communicate with children of different ages and their families, adapting their communication style to each patient's needs and cultural background.
- **Outcome 5:** Students will competently perform basic pediatric procedures such as basic pediatric procedures such as growth and development assessment and the needed skills in the log book
- **Assessment:** Students will be assessed through formative and summative clinical examinations

Attitudes:

- **Outcome 6:** Students will demonstrate professionalism in their interactions with patients and families, exhibiting punctuality, respect, ethical decision-making, and cultural sensitivity.
- **Outcome 7:** Students will consistently demonstrate empathy and compassion when caring for pediatric patients and their families, creating a supportive and understanding environment.
- **Assessment:** Students will be assessed through formative and summative clinical examinations regarding communication skills

Evidence-Based Practice:

- **Outcome**: Graduates will be proficient in identifying evidence-based guidelines and best practices in pediatric care.
- **Assessment:** Students will critically evaluate clinical guidelines during theoretical analytic MCQ questions and through case-based clinical small group clinical discussions to inform their practice.

Lifelong learning

- **Critical Thinking Enhancement**:
- **Outcome:** Graduates will demonstrate improved critical thinking skills by analyzing complex problems, evaluating evidence, and making informed decisions.
- **Assessment**: Students will participate in analysis of case scenarios in theoretical MCQ questions and also in clinical case-based discussions, debates, and critical analysis exercises.
- **Independent Learning Proficiency:**
- **Outcome:** Graduates will be adept at self-directed learning, seeking out relevant resources beyond the classroom.
- **Assessment:** Students will create personalized learning plans, explore additional readings, and engage in independent seminars and student researches
- **Digital Literacy Development:**
- **Outcome:** Graduates will effectively use technology for learning, research, and communication.
- **Assessment:** Students will demonstrate proficiency in online searching, evaluating sources, and using educational apps through engaging in independent seminars and student researches

Additional Considerations:

Feedback and Revision:

Gather feedback from students and instructors throughout the program.

Feedback delivered to students by the college regarding students' opinions of teaching staff and educational program

Use feedback to identify areas for improvement, update content, and revise teaching methods to continuously enhance the curriculum**. Feedback picture in the attached appendix numbered 1)**

5.Course Overview

- **The course is composed of one clinical part**
  - **Duration**: **10 weeks course for each group of students**

    Weekly Hours: 250 hours (10 weeks per course, five days per week, five hours per day)

    Duration of a course for each group: 10 weeks course (50 days)

    Total: 250 hours for each group in the academic year

  - **Location**:

    -For the seminars part: Lecture Hall in the college campus

    -For the practical part: Teaching hospitals) Pediatric wards at Ibn Al-Atheer Hospital, Al-Khansa and Al-Salam Hospital)

  - **Format**:

- Ward Rounds
- Small group teaching
- Student-Centered: Motivating students to discuss cases
- Interactive Teaching
- Bedside Teaching
- Case-Based Learning (CBL)
- Problem-Based Learning (PBL)
- Peer Teaching and Learning
- Simulation Training on manikins
- Encourage lifelong learning: (by encouraging critical thinking ,independent learning, using technology and further reading from updated references and researches

- **Methods of teaching practical part:**

  - Clinical teaching in hospital words
  - Teaching in specialized centers (oncology, dialysis, thalassemia centers) (document number 3 in the appendix ;titled form 3 in the log book)
  - Teaching in Emergency units (document number 3 in the appendix; titled form 3 in the log book)

- Teaching in Premature care units (document number 3 in the appendix; titled form 3 in the log book)
- Tutorials (list of tutorials attached in the appendix (document number 4)
- Skills that should be learned and Skills that should be observed (document number 5 in the appendix; titled form 4 and 7 in the log book)
- The student should present detailed of full written case report of four cases that student present in front of tutors (document number 6 in the appendix; titled form 5 in the log book)
- Training in PHC (document number 7 in the appendix; titled form 6 in the log book)

Settings:

1. Duration of student training: ten weeks.

2. Students will be trained at Al-Salam Teaching Hospital, Ibn Al-Atheer Hospital, Ibn Sina Hospital and al khansa Hospital

3. Students attend the Thalassemia Center / Ibn Al-Atheer Hospital for one day during the training period.

4. Students attend the dialysis unit / Ibn Sina Hospital for two days during the training period.

5. Students attend the Oncology Unit / Ibn Al-Atheer Hospital for one day during the training period

6. Students attend the emergency words for two days during the training period to learn the diagnosis, assessment and treatment of important emergency cases, under the supervision of the teachers.

7. Students attend Al Quds primary care centers for 5 days during the course

8. Students attend the skills lab for one day during the training period to learn how to do basic life support for the child.

9. The student is given a number of important topics in the discussion sessions (Tutorials), according to what is attached to the curriculum.

10. Students are required to prepare and achieve daily practical training objectives

11. The student is advised to know and follow up the cases of patients entering the hospital halls and to provide a list of those cases to the teacher in each teaching session.

12. The student is advised to continue clinical training in the words after the end of the teaching session and is responsible for everything related to pediatrics even if it is not discussed or given in the lecture by reviewing the sources.

13. The student must submit at least four cases during the training period and then submit an Approach report on the best way to diagnose and treat the presented case.

14. The student must attend a clinical case daily, even if it is not presented, and participating actively.

15. The student must present a seminar on a pediatric topic under supervision of a supervisor

16. The exam shall be in the last week of the training period

Skills:

During the clinical course, students will receive the following training:

1. Communication skills
2. History taking skills
3. Examination of different systems of the child body
4. Growth parameter examination skills
5. skills required in the log book

Clinical objectives:

At the end of the training period, the student should be able to:

1. Practice of Communication skills
2. Taking the medical history in an orderly, sequential and comprehensive manner so that it can be analyzed to reach to a scientific provisional diagnosis and differential diagnoses
3. To practice the clinical examination in an academic, orderly and organized manner, and to know how to present the results of the clinical examination and their significance
4. Practiced the learned skills

- **Assessment Methods**

Types of Assessment

- **Formative Assessments**: clinical examination in the words, case discussion, case seniors
    - Sending case scenarios MCQ by google format
- **Continuous Feedback**: Provided throughout the course (feedback document numbered 1 in the appendix)
- **Grading System**

-*Components of Assessment:*

- Written Exams (40% of total grade) through Iraqi comprehensive examination
- The degree of annual pursuit (20 marks)
- Objective Structured Clinical Examination (OSCE) by long case clinical exam (40% of total grade)

-*Detailed Breakdown*

Assessment marks for pediatrics examinations in sixth stage

A. Written Exams (40% of total grade) through Iraqi comprehensive examination

Depending on blue print of Iraqi comprehensive examination

B. The degree of annual pursuit (20 marks)

❖ Which is the degree of the clinical examination at the end of each eleven week period of clinical training.

A. The assessment of the degree of annual quest (20) shall be as follows:

It consists of :

1. **Three theoretical MCQ examinations based on problem solving pattern (8 marks)**

❖ First theoretical MCQ examination: 2 marks
❖ Second theoretical MCQ examination; 2 marks
❖ Third theoretical MCQ examination: 4 marks

2. **Long case station**:

❖ (The student is given a period of 45 minutes to complete the case) and is tested for a quarter of an hour. (7 marks)

The communication skills and attitude of the student are valued at each clinical station, and the student is given 10% of the grade for these skills.

❖ **Objective Structured Clinical Examination (OSCE) (10%)**:

- Clinical exams in hospital at the end of ten week of the clinical course
- A standardized evaluation form is approved by all members of the pediatric department and announced to students prior to each clinical course (**attached at the end of the document in the appendix documents numbered 2**)
- assessing history taking knowledge and skill; examination knowledge and skill; attitude and communication skills

3. **Ten stations, slides** (2 marks) of ten minutes duration, consisting of

❖ **Ten slides**. The stations include the following topics
❖ Spot diagnosis slides
❖ ECG slides.
❖ CXR slides.
❖ Poisoning slides
❖ Fluid therapy slides

- ❖ Emergency drugs slides.
- ❖ Life support question slides.
- ❖ Tutorials subject slide

4. **Examination on topics given in primary health care center (1 mark)**

5. **Seminar (1 mark)**

6. **Satisfied Log book requirements (1 mark)**

C. **A practical exam at the end of the year for the sixth stage: 40 marks**, including the OSCE exam, in which communication skills and practical skills in pediatrics are covered.

It includes **five stations**

Station one

1**. Slide stations**: (**20 marks**) (½ marks for each slide)

INCLUDING

- Spot diagnosis slides (clinical slides)
- EEG slides
- CXR slides.
- Tutorial subjects' slides
- Life support question slides.

Station two:

FOUR SIIDES (one mark for each slide) on

- Fluid therapy
- Poisoning slides
- Instruments, devices and drugs

Station three

Laboratory slides (three slides 2 marks for each slide)

Station four

- **Clinical history station** (**10 marks**)

Station five

- **Clinical examination station (short cases)** (**10 marks**) of 10 minutes per student

❖ **Objective Structured Clinical Examination (OSCE) (10%)**:

- Clinical exams in hospital at the end of academic year
- A standardized evaluation form is approved by all members of the pediatric department and announced to students prior to each clinical course (**attached at the end of the document in the appendix documents numbered 2)**
- Assessing examination knowledge and skill; attitude and communication skills

In summary:

- Annual quest 20 Marks
- End of the Year (Theoretical) 40 Marks
- End of Year Exam (Practical) 40 Marks
- **Pass Mark**: 50%
- Students must achieve a combined score of at least 50% from all components to pass the course.
- **Continuous Assessment**
- **Examples**: formative case scenario MCQ during each clinical sessions , bed side formative assessment

Assessment marks for pediatrics examinations in sixth stage		
Annual quest 20 Marks	End of the Year (Theoretical) 40 Marks	End of Year Exam (Practical) 40 Marks 40 Marks

Iraqi Comprehensive blue print: document numbered 3 in appendix

6.Instructional Objective of the lectures

No lectures in sixth year

7.Instructional objectives of the clinical sessions:

	Session title	No. Of sessions	Faculty member	Instructional objective
1	Growth and development:	2	All teachers	• Accurate measurements of weight, length (height) and OFC. • Plotting of this measurement on growth charts • The types of growth charts and the meaning of centiles. • Definition of growth abnormalities using growth charts • (FTT, marasmus, kwashiorkor, short stature) • Normal developmental mile stones assessment by history and examination • (Gross motor, fine motor and vision, language and hearing, social and adaptive) • Students should practice the learned data in front of examiner. • Know the importance of history in patient with FTT regarding: previous growth parameter including birth growth parameter, feeding history, systemic review and social history) • Practice accurate plotting of growth parameters of patient with FTT, marasmus and kwashiorkor. • Know definition of acute and chronic malnutrition (knowing the principle that weight decrease first then length and lastly OFC.) • Know common causes of FTT (non organic and organic) • Outline management of FTT.
2	Neonatal history and examination	1	All teachers	• Know how to take proper neonatal history • Know definition of full term, premature, LBW

				• Know a simple way of assessing gestational age • Know the complications associated with prematurity, LBW, infant of diabetic mother • Be aware to ask in history about risk factors of neonatal sepsis • Know the signs suggestive of sepsis, hypoglycemia, RDS. • □ Know primitive reflexes and their significance
3	neonatal jaundice	1	All teachers	• Know criteria of physiological jaundice • Know criteria of pathological jaundice • Know types of blood group incompatibility • Know early signs of kernicterus • Plot TSB level on the chart • Know the mechanism of phototherapy, precautions, complications • Know preparation, procedure, indication, complication of exchange transfusion • □ Analysis of student cases with neonatal jaundice
4	Gastroenteritis	2	All teachers	• Know how to asses degree of dehydration • Know types of dehydration • Know the indications of admission to hospital • Know definition of acute G.E • Know definition of chronic G.E • Know causes of bloody diarrhea • Differentiate viral versus bacterial and parasitic causes • Differentiate small versus large bowel pathology • Presentation and analysis of cases with G.E according to learned data • Practical demonstration of cannula, scalp vein , types of fluid available in hospital • Practical calculation of deficit according to severity of dehydration, maintenance fluid according to weight, types of fluid used • Practical calculation of drops needed per minute • Demonstration of micro drip device

				• Importance of frequent assessment of patient with dehydration, asking about urine output • Complication of G, E • Causes of convulsion in cases with G.E and management • Causes of abdominal distention in patient with G.E and management
5	Respiratory system	2	All teachers	• Analysis of history of respiratory system • Examination of respiratory system in children • Importance of detecting signs of respiratory distress • Analysis of respiratory cases • Comments on asthma, bronchiolitis, pneumonia, FB, croup and whooping cough
6	Cardiac system	2	All teachers	• Know proper examination of CVS • Know the description and analysis of mummers • Know the signs of heart failure • Know causes of cyanotic and a cyanotic congenital heart disease • Analysis of cardiac cases • Hints on Investigations in cardiac case (CXR in TOF, TGA) ECG, ECHO • Comments on management of heart failure.
7	Anemia.	1	All teachers	• Symptoms and signs of anemia. • Historical clues in evaluation of anemia (age, nutrition, family history, drugs, infection and diarrhea) • Physical finding in evaluation of anemia (jaundice, purpura, splenomegaly, lymphadenopathy, glossitis, angular stomatitis and koilonychia) • Investigations of anemia • Causes of anemia according to RBC morphology. • Common causes of hemolytic anemia
8	Bleeding tendency	1	All teachers	• Symptoms and signs of bleeding tendency • Historical clues in evaluation of bleeding tendency

				• Physical finding in evaluation of bleeding disorder (anemia, purpura, splenomegaly, lymphadenopathy, hemarthrosis) • Screening test for (Bleeding time, platelets, PT, APTT, TT) • Common causes of bleeding disorder anemia (ITP, Leukemia, coagulation defect) • Management of bleeding tendency
9	Infectious diseases	2	All teachers	• How to measure temperature (site, normal value) • Common causes of fever with localizing signs • Common causes of fever without localizing signs (sepsis, UTI) • Definition of PUO, (causes and investigations) • Differential diagnosis of fever and rash. • Schedules of vaccination • Analysis of case with fever according to leaned data • Signs of meningeal irritation, (technique, indication and contraindication of CSF exam.) • Symptoms and signs of sepsis (investigation) • Symptoms and signs of common causes of PUO (typhoid, brucellosis, tb, rheumatological, malignant disease)
10	Diabetes	1	All teachers	• Laboratory definition of diabetes • Manifestation of DKA • Management of DKA • Management of diabetes (insulin types) • Complication of diabetes • Loss of consciousness in of diabetes
11	Neurological system	2	All teachers	• Neurological history and examination • Historical and examination clues in convulsion • Signs of meningeal irritation • Definition, types, causes of cerebral palsy • Normal and abnormal head size (definition and causes) • Assessment of patient with convulsion.

				• Definition of febrile convulsion • Definition and types of epilepsy
12	Renal system	2	Nephrologist	• Definition, causes and management of acute renal failure • Definition, causes and management of chronic renal failure • Definition, causes, complications and management of nephrotic syndrome • Definition, causes complications and management of glomerulonephritis • Diagnosis and treatment of UTI.
13	Practical management of critically ill child	1	All teachers	• Management of severely dehydrated child. Reevaluation after rehydration. Subsequent fluid or ORS therapy. Type of used fluid and how many drop per minute. • Management of acute asthmatic attack. Oxygen flow rate. Ventolin nebulization. Inhalers. Steroids. • Management of bronchiolitis, croup, and pneumonia - other respiratory distressed child. • Management of heart failure case • Management of convulsive attacks. Neonatal convulsion, febrile convulsion, epilepsy
14	Practical management of a child with thalassemia and sickle cell anemia	1	Academic staff working in al hadba hematology center	• The difference in clinical presentation of thalassemia and sickle cell anemia. • Interpretation of laboratory investigation of Hb variant test. • Indication of blood transfusion in both conditions • How to prepare blood for the patient. Observation of method of cross match. • What are the complications of blood transfusion by observing the patient during blood transfusion and learn how to treat them? • The infusion pump by which Desferal is given, also the student should see Desferal drug and Exjade.
15	Communication skills	During all cessions	All teachers	**Skills objectives of the program includes** • Greeting the patient • Introduction of student name and affiliation to

				the parents • Asking permission to take history or examine the patient • At the end of interview thanking the parents for their agreement to take history or examine the patient and wishing for improvement of the patient ➢ **Emotional and Value Objectives:** • Respect for the patient and his companions • Dealing gently with children • Good behavior with workers in the sites •
	Formative assessment	During all cessions	All teachers	formative case scenario MCQ during each clinical sessions, bed side formative assessment
	Miscellaneous cases and review	Rest of the course	All teachers	
	Tutorials	9 tutorials	All teachers	• To emphasize on clinical aspect of important topics (document in appendix)
	Primary health center (Childhood immunization, protocols for dehydration, respiratory illness)		By PHC staff	• To identify and apply Iraqi immunization schedule • To identify protocols for dehydration, respiratory illness

8.Tables of the Course

- جداول التدريب النظري والعملي والسريري

جدول ١٠ اسابيع

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة السادسة

للعام الدراسي ٢٠٢٣ - ٢٠٢٤

رقم اسبوع التدريب	١	٣	٥	٧	٩	١١	١٣	١٥	١٧	١٩	٢١	٢٣	٢٥	٢٧	٢٩	٣١	٣٣	٣٥	٣٧	٣٩
من	٧/١٦	٧/٣٠	٨/١٣	٨/٢٧	٩/١٠	٩/٢٤	١٠/٨	١٠/٢٢	١١/٥	١١/١٩	١٢/٣	١٢/١٧	١٢/٣١	١/١٤	١/٢٨	٢/١١	٢/٢٥	٣/١٠	٣/٢٤	٤/٧
الى	٧/٢٠	٨/٣	٨/١٧	٨/٣١	٩/١٤	٩/٢٨	١٠/١٢	١٠/٢٦	١١/٩	١١/٢٣	١٢/٧	١٢/٢١	١/٤	١/١٨	٢/١	٢/١٥	٢/٢٩	٣/١٤	٣/٢٨	٤/١١
رقم اسبوع التدريب	٢	٤	٦	٨	١٠	١٢	١٤	١٦	١٨	٢٠	٢٢	٢٤	٢٦	٢٨	٣٠	٣٢	٣٤	٣٦	٣٨	٤٠
من	٧/٢٣	٨/٦	٨/٢٠	٩/٣	٩/١٧	١٠/١	١٠/١٥	١٠/٢٩	١١/١٢	١١/٢٦	١٢/١٠	١٢/٢٤	١/٧	١/٢١	٢/٤	٢/١٨	٣/٣	٣/١٧	٣/٣١	٤/١٤
الى	٧/٢٧	٨/١٠	٨/٢٤	٩/٧	٩/٢١	١٠/٥	١٠/١٩	١١/٢	١١/١٦	١١/٣٠	١٢/١٤	١٢/٢٨	١/١١	١/٢٥	٢/٨	٢/٢٢	٣/٧	٣/٢١	٤/٤	٤/١٨
A	أطفال		باطنية		نسائية		جراحة													
B	نسائية		جراحة		أطفال		باطنية													
C	باطنية		أطفال		جراحة		نسائية													
D	جراحة		نسائية		باطنية		أطفال													

9.Learning Resources

References

Nelson textbook of pediatrics (2020)

Essential of nelson textbook (2023)

Pub med

10.Additional Information

Contact: Aseel.noooh@uoninevah.edu.iq

Location: فرع طب الأطفال

11.Appendix

1. **Feedback**
2. **Assessment paper**
3. **Specialized units**
4. **Tutorials**
5. **Skills**
6. **Case reports**
7. **PHC**
8. **Student base learning**
9. **Clinical course objective, tutor and teaching hospital location**
10. **LOG BOOK**

Republic Of Iraq
Ministry Of Higher Education
And Scientific Research
Ninevah University
Ninevah College of Medicine
Pediatric department

العدد 350
التاريخ 2023\9\23

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة نينوى
كلية الطب
فرع طب الأطفال

السيد عميد كلية الطب المحترم

م/استبيان مجموعة A المرحلة السادسة

تحيه طيبه:

تم اجراء استبيان للمجموعة A المرحلة السادسة حول اداء فرع طب الاطفال في التدريس السريري و كانت النتائج كلها ايجابية وتتراوح ما بين ممتاز و جيد جدا .....للتفضل باطلاع حضرتكم

و لكم جزيل الشكر والتقدير

د.نشوان الحافظ
رئيس فرع طب الأطفال
2023/9/23

أ. نسخه منه الى:
- مكتب السيد العميد المحترم
- صادرة فرع طب الاطفال

Document (1) questioner results

كلية الطب / جامعة نينوى

Station assessment (Examination) (6th year)

No	Student name	Com Skills, attitude and behavior 10 marks	Examination Technique 30 marks	Signs that the student Should discover them with their proper description and their total score is 30 marks												Asking short answer question e.g DX, DD, INV and treatment plans 30marks	Total Out of 100 marks
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	

Examiner(1) Examiner(2)

Document (2) Assessment papers

جامعة نينوى – كلية طب نينوى

Long case assessment (6th year)

*Score is out of 100 for each student

No	Student name	Com Skills, attitude and behavior	History is presented in chronological way	History items covered and analyzed well	Asking about and analyzing specific items well	Examination by describing finding and /or technique in proper way	Discussion	Total
		10	10	10	10	30	30	100
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

تصميم : د. خليل ابراهيم

Examiner (1) Examiner (2)

75

Form 3: Attendance in paediatric emergency unit, neonatal care unit and other units.

Notes:	Attendance in these areas is advised with a MINIMUM attendance frequency as outlined below.

Date	Event	Tutor	Tutor signature
	Paediatric emergency unit (2hours)		
	Neonatal care unit (2 hours)		
	Neonatal care unit (2 hours)		
	Paediatric oncology session (2 hours)		
	Thalassemia canter (2 hours)		
	Dialysis unit (2 hours)		
	Dialysis unit (2 hours)		

Document (3) specialized units

Form 2: Attendance at Tutorials

Sixth year students in their paediatrics course will have a tutorial sessions in paediatrics

	Tutor	**Tutorial – title**	**Tutor Signature**
1.	د.بشار شاكر	PEDIATRIC ECG	
2.	د. احمد خليل	PEDIATRIC SLIDES	
3.	د.علي عادل	X-RAY SLIDES IN PEDIATICS	
4.	د.اسيل سامي	POISONING IN PEDIATICS	
5.	د.يسرى احمد	Laboratory investigations	
6.	د.ايمان عصام	FLUID THERAPY IN PEDIATRICS	
7.	د.خليل ابراهيم	PEDIATRIC LIFE SUPPORT	
8.	د.يسرى احمد	ANEMIA AND BLEEDING DISORDERS	
9.	د. مصعب مازن	PEDIATRIC EMERGENCY & EMERGENCY DRUGS	

Document (4) tutorials

Form 4: Recommended learned and observed skills

Notes:	Attendance, observation and learning of these skills are strongly recommended.

Date	Event	Tutor	Tutor Signature
Learned skills			
1.	Anthropometric measurement (Weight, stature, OFC) (During objective 1and 2)		
2.	Plotting of growth parameters on charts (During objective 1and 2)		
3.	TSB Measurement + plotting on charts (During objective 4)		
4.	Incubators and phototherapy technique (During objective 3 and 4)		
5.	Fluid therapy (During objective 6)		
6.	Oxygen therapy and nebulization (During objective 7 and 8)		
7.	Paediatric resuscitation (During Pediatric life support tutorial)		
8.	Others		
9.			
10.			
Observed skills			
At any chance during your course			
1.	Taking blood from a child		
2.	Venous cannulation		
3.	Lumbar puncture		
4.	Septic screen (blood culture, urine culture, CSF culture)		
5.	Others (like bone marrow exam , exchange transfusion , etc.)		
6.			
7.			
8.			

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Form 7: Attendance at skill laboratory

Date	**objective – title**	**Tutor**	**Tutor Signature**
	Basic paediatric life support		
	Paediatric life support after foreign body inhalation		

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Documents (5) skills

Form 5: Details of four case reports: Full case presentation and analytic approach should be attached.

تاريخ الدخول	**Hospital**	اسم المريض **case 1**	رقم الطبلة	**Tutor**	**Signature**
Brief case report:					
تاريخ الدخول	**Hospital**	اسم المريض **case 2**	رقم الطبلة	**Tutor**	
Brief case report:					
تاريخ الدخول	**Hospital**	اسم المريض **case 3**	رقم الطبلة	**Tutor**	
Brief case report:					

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Documents (6) Case reports

Form 6: Attendance at primary health centre.

Date	**Training subject title**	**Tutor**	**Tutor Signature**
1.	**Management of dairrhea in children**		
2.	**Management of respiratory disorders in children**		
3.	**Vaccination**		
4.	**Examination**		

Documents (7) PHC

Documents (8)

Student base learning

جدول التدريس العملي الاسبوعي

المرحلة		الاحد ١٠/١	الاثنين ١٠/٢	الثلاثاء ١٠/٣	الاربعاء ١٠/٤	الخميس ١٠/٥
السادس	المكان	مستشفى	مستشفى		مركز صحي	الكلية
	التدريسي	د. مصعب مازن (م. ابن الاثير) د. احمد خليل (م. ابن الاثير)	د. ايمان عصام (م. ابن الاثير) د. اسيل سامي (م. الخنساء)	عطلة	مركز القدس	د. علي عادل
	objective	Neonatology1	Neonatology2			Pediatric Imaging

Student's Log Book

Sixth Year Paediatric Course

Paediatric Department

College of Medicine

Ninevah University

2022- 2023

Student's name:

Student picture

The logbook

Objectives

- To guide the trainee to the minimum procedures required to be a competent doctor.
- To help in the assessment of the trainee.

About the logbook:

- The student should take the logbooks with them during their training programs.
- The procedures learned during the courses (observed or performed) should be recorded in the logbook.
- Learned procedures other than those mentioned in the logbook can also be recorded.
- The tutor is asked to sign for the procedures documented by the student.

Dear student:

At the end of this 10 weeks clinical course you should be familiar with the common conditions affecting children, and have a working knowledge how to approach and examine a sick child, plan investigations and organise management.

How to use this log book:

The logbook provides details of the various placements that make up the clinical attachment in Paediatrics, it is extremely important that you utilise your time appropriately during the attachment, and you are strongly advised to spend a significant proportion of your time seeing patients on the wards, in outpatients and emergency department. Do not rely solely on tutorials and, at your level and maturity, it is unacceptable to expect to be completely spoon fed. The logbook contains attendance forms for the various placements that need to be signed by the tutor running each particular placement. Tutors will not provide signatures 'in retrospect'. Although you should strive to cover as much clinical material as possible, we appreciate that this is difficult and have provided a list of important topics and appropriate forms to document these cases. Every student is expected to discuss and present at least four clinical cases to their colleagues and a tutor and this should be documented in the appropriate form.

The logbook is designed to help the student and, as such, should provide a framework around which to plan your attachment in Paediatrics. It will need to be handed in for assessment at the end of the course. Although the logbook will not contribute directly toward the final examinations in Paediatrics, the standard rule is that you cannot enter the clinical

course examination and final clinical examination in paediatrics if you have 10% unexcused absence days or 15 % excused absence days in this course.

Form 1: Attendance at discussion of objectives and on ward rounds

Form 2: Attendance at Tutorials

Form 3: Attendance at skill laboratory

Form 4: Attendance in Paediatric emergency unit, neonatal care unit and other units.

Form 5: Recommended, learned, and observed skills

Form 6: Details of four case reports

Form 7: Attendance at primary health centre.

Form 8: List of Students in the group

Dr. Nashwan Al Hafidh

Head of Paediatrics department

Tutors in paediatrics:

1. Dr. Nashwan Al hafidh: Professor
2. Dr.Yusra Ahmed : Assistant Professor
3. Dr.Bashar Shaker: Assistant Professor
4. Dr.Khalel Ibrahem: Assistant Professor
5. Dr.Ali Adel: Lecturer
6. Dr.Assel Sami: Lecturer
7. Dr.Eman Isam: Lecturer
8. Dr.Eman Shaker : Lecturer
9. Dr.Ahmed khalel: Lecturer
10. Dr. Roaa Faisal: Lecturer
11. Dr. Musa'ab Mazin: Lecturer

Form 1: Attendance at discussion of objectives and on ward rounds

Form 1: Attendance at discussion of objectives and on ward rounds

An objective takes any format including history, examination of paediatric patients and approach to patients according to registered topics.

No	Date	Objective Title	Prepared case	Tutor name	Tutor signature
1	/	Growth and development			
2	/	Growth and development			
3	/	Neonatology			
4	/	Neonatal jaundice			
5	/	Gastro-enteritis			
6	/	Gastro-enteritis			
7	/	Respiratory system			
8	/	Respiratory cases			
9	/	Cardiovascular system			
10	/	Cardiac cases			
11	/	Anemia			
12	/	Bleeding tendency			
13	/	Fever and infectious diseases			
14	/	Cases of feverish child			
15	/	Diabetes and D.K.A			
16	/	Nervous system			
17	/	Neurological cases			

18	/	Renal failure			
19	/	Nephrological cases			
20	/	Critically ill child			
22	/	Thalassemia and sickle cell An			
23	/	Review and assessment			
24	/	Review and assessment			
25	/	Review and assessment			
26	/	Review and assessment			
27	/	Review and assessment			
28	/	Review and assessment			
29	/	Review and assessment			
30	/	Review and assessment			

Form 2: Attendance at Tutorials

Sixth year students in their paediatrics course will have a tutorial sessions in paediatrics

	Tutor	**Tutorial – title**	**Tutor Signature**
1.	**د.بشار شاكر**	**PEDIATRIC ECG**	
2.	**د. احمد خليل**	**PEDIATRIC SLIDES**	
3.	**د.علي عادل**	**X-RAY SLIDES IN PEDIATICS**	
4.	**د.اسيل سامي**	**POISONING IN PEDIATICS**	
5.	**د.يسرى احمد**	**Laboratory investigations**	
6.	**د.ايمان عصام**	**FLUID THERAPY IN PEDIATRICS**	
7.	**د.خليل ابراهيم**	**PEDIATRIC LIFE SUPPORT**	
8.	**د.يسرى احمد**	**ANEMIA AND BLEEDING DISORDERS**	
9.	**د. مصعب مازن**	**PEDIATRIC EMERGENCY & EMERGENCY DRUGS**	

Form 3: Attendance at skill laboratory

Date	**objective – title**	**Tutor**	**Tutor Signature**
/	Basic paediatric life support		
	Paediatric life support after foreign body inhalation		

Form 4: Attendance in paediatric emergency unit, neonatal care unit and other units.

Notes:	Attendance in these areas is advised with a MINIMUM attendance frequency as outlined below.

Date	Event	Tutor	Tutor signature
	Paediatric emergency unit (2hours)		
	Neonatal care unit (2 hours)		
	Neonatal care unit (2 hours)		
	Paediatric oncology session (2 hours)		
	Thalassemia canter (2 hours)		
	Dialysis unit (2 hours)		
	Dialysis unit (2 hours)		

Form 5: Recommended learned and observed skills

Notes:	Attendance, observation and learning of these skills are strongly recommended.

Date	Event	Tutor	Tutor Signature
Learned skills			
1.	Anthropometric measurement (Weight, stature, OFC) (During objective 1and 2)		
2.	Plotting of growth parameters on charts (During objective 1and 2)		
3.	TSB Measurement + plotting on charts (During objective 4)		
4.	Incubators and phototherapy technique (During objective 3 and 4)		
5.	Fluid therapy (During objective 6)		
6.	Oxygen therapy and nebulization (During objective 7 and 8)		
7.	Paediatric resuscitation (During Pediatric life support tutorial)		
8.	Others		

9.			
10.			
Observed skills			
At any chance during your course			
1.	Taking blood from a child		
2.	Venous cannulation		
3.	Lumbar puncture		
4.	Septic screen (blood culture, urine culturs ,CSF culture)		
5.	Others (like bone marrow exam , exchange transfusion , etc.)		
6.			
7.			
8.			

Form 6: Details of <u>four</u> case reports: Full case presentation and analytic approach should be attached.

تاريخ الدخول	**Hospital**	اسم المريض **case 1**	رقم الطبلة	**Tutor**	**Signature**
Brief case report:					
تاريخ الدخول	**Hospital**	اسم المريض **case 2**	رقم الطبلة	**Tutor**	
Brief case report:					

تاريخ الدخول	**Hospital**	اسم المريض **case 3**	رقم الطبلة	**Tutor**
Brief case report:				

تاريخ الدخول	**Hospital**	اسم المريض **case 4**	رقم الطبلة	**Tutor**

Group ( )

Form 8: List of Students in the group

Your frank feedback is required please:
This course provided you with what percentages of what you need and expect

1. **80 -100 %**
2. **50-79%**
3. **Less than 50%**

Your opinion is essential for us
Your opinion will not affect your mark
Please add any comment, which you think it will improve your learning and our teaching.
Thanks

جداول

التدريس النظري

والتدريب العملي

والسريري

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

الساعة / اليوم	٨.٣٠ ــ ٩.٣٠	٩.٣٠ ــ ١٠.٣٠	١٠.٣٠ ــ ١١.٣٠	١١.٣٠ ــ ١٢.٣٠	١٢.٣٠ ــ ١.٣٠	١.٣٠ ــ ٢.٣٠	٢.٣٠ ــ ٣.٣٠	٣.٣٠ ــ ٤.٣٠
السبت	فيزياء A		احياء A		انكليزي A	الديمقراطية وحقوق الانسان A	احياء مناقشة A	انكليزي A
	احياء B		فيزياء B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	تشريح A		كيمياء A		اساسيات الطب A	حاسبات A	مناقشة TBL A	الجزء النظري من الجانب العملي كيمياء A
	كيمياء B		تشريح B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	قاعة النظري مشغولة من قبل طلبة المرحلة الرابعة		تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي 6 كيمياء عملي 7 فيزياء عملي 8 احياء عملي 9 حاسبات عملي 10	تشريح عملي 7 كيمياء عملي 8 فيزياء عملي 9 احياء عملي 10 حاسبات عملي 6	تشريح عملي 8 كيمياء عملي 9 فيزياء عملي 10 احياء عملي 6 حاسبات عملي 7	تشريح عملي 9 كيمياء عملي 10 فيزياء عملي 6 احياء عملي 7 حاسبات عملي 8	تشريح عملي 10 كيمياء عملي 6 فيزياء عملي 7 احياء عملي 8 حاسبات عملي 9	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الأولى / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

الساعة / اليوم	٨.٣٠ ــ ٩.٣٠	٩.٣٠ ــ ١٠.٣٠	١٠.٣٠ ــ ١١.٣٠	١١.٣٠ ــ ١٢.٣٠	١٢.٣٠ ــ ١.٣٠	١.٣٠ ــ ٢.٣٠	٢.٣٠ ــ ٣.٣٠	٣.٣٠ ــ ٤.٣٠
السبت	تشريح A		كيمياء A		انكليزي A	الديمقراطية وحقوق الانسان A	اساسيات الطب A	انكليزي A
	كيمياء B		تشريح B		الديمقراطية وحقوق الانسان B	انكليزي B	انكليزي B	
الاحد	فيزياء A		احياء A		حاسبات A	احياء مناقشة A	مناقشة TBL A	
	احياء B		فيزياء B		احياء مناقشة B	مناقشة TBL B	الجزء النظري من الجانب العملي كيمياء B	
الاثنين	تشريح عملي ١ كيمياء عملي ٢ فيزياء عملي ٣ احياء عملي ٤ حاسبات عملي ٥	تشريح عملي ٢ كيمياء عملي ٣ فيزياء عملي ٤ احياء عملي ٥ حاسبات عملي ١	تشريح عملي ٣ كيمياء عملي ٤ فيزياء عملي ٥ احياء عملي ١ حاسبات عملي ٢	تشريح عملي ٤ كيمياء عملي ٥ فيزياء عملي ١ احياء عملي ٢ حاسبات عملي ٣	تشريح عملي ٥ كيمياء عملي ١ فيزياء عملي ٢ احياء عملي ٣ حاسبات عملي ٤	الجزء النظري من الجانب العملي احياء A	الجزء النظري من الجانب العملي كيمياء A	
الثلاثاء	اساسيات الطب B	حاسبات B	تشريح عملي 6 كيمياء عملي 7 فيزياء عملي 8 احياء عملي 9 حاسبات عملي 10	تشريح عملي 7 كيمياء عملي 8 فيزياء عملي 9 احياء عملي 10 حاسبات عملي 6	تشريح عملي 8 كيمياء عملي 9 فيزياء عملي 10 احياء عملي 6 حاسبات عملي 7	تشريح عملي 9 كيمياء عملي 10 فيزياء عملي 6 احياء عملي 7 حاسبات عملي 8	تشريح عملي 10 كيمياء عملي 6 فيزياء عملي 7 احياء عملي 8 حاسبات عملي 9	الجزء النظري من الجانب العملي احياء B

مجموعة A يكون دوامهم في قاعة الدكتور خليل الشابندر ومجموعة B يكون دوامهم في قاعة المرحلة الرابعة .

يوم السبت يكون الدوام في قاعتي طاهر الدباغ وخليل الشابندر بالتناوب بين المجموعتين .

جامعة نينوى ــ كلية الطب

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قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠
الأحد	الجزء النظري من الجانب العملي كيمياء A	كيمياء A		كيمياء B		الجزء النظري من الجانب العملي الكيمياء B
	الجزء النظري من الجانب العملي فسلجة B	فسلجة B		فسلجة A		الجزء النظري من الجانب العملي الفسلجة A
الاثنين	تشريح A			فسلجة A	مناقشة TBL للمجموعتين A و B	
	انسجة B			تشريح B		
الثلاثاء	انسجة A		كيمياء A	اجنة A	جرائم نظام البعث في العراق A و B	
	اجنة B	كيمياء B	فسلجة B			
الأربعاء	تشريح عملي ١ كيمياء عملي ٢ انسجة عملي ٣ فسلجة عملي ٤	تشريح عملي ٢ كيمياء عملي ٣ انسجة عملي ٤ فسلجة عملي ١	تشريح عملي ٣ كيمياء عملي ٤ انسجة عملي ١ فسلجة عملي ٢	تشريح عملي ٤ كيمياء عملي ١ انسجة عملي ٢ فسلجة عملي ٣		
الخميس	تشريح عملي ٥ كيمياء عملي ٦ انسجة عملي ٧ فسلجة عملي ٨	تشريح عملي ٦ كيمياء عملي ٧ انسجة عملي ٨ فسلجة عملي ٥	تشريح عملي ٧ كيمياء عملي ٨ انسجة عملي ٥ فسلجة عملي ٦	تشريح عملي ٨ كيمياء عملي ٥ انسجة عملي ٦ فسلجة عملي ٧		

ملاحظة : مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثانية / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠
الأحد	الجزء النظري من الجانب العملي كيمياء A	كيمياء A		كيمياء B		الجزء النظري من الجانب العملي الكيمياء B
	الجزء النظري من الجانب العملي فسلجة B	فسلجة B		فسلجة A		الجزء النظري من الجانب العملي الفسلجة A
الاثنين	تشريح A			فسلجة A	مناقشة TBL للمجموعتين A و B	
	انسجة B			تشريح B		
الثلاثاء	انسجة A		كيمياء A	اجنة A	جرائم نظام البعث في العراق A و B	
	اجنة B	كيمياء B	فسلجة B			
الأربعاء	تشريح عملي ١ كيمياء عملي ٢ انسجة عملي ٣ فسلجة عملي ٤	تشريح عملي ٢ كيمياء عملي ٣ انسجة عملي ٤ فسلجة عملي ١	تشريح عملي ٣ كيمياء عملي ٤ انسجة عملي ١ فسلجة عملي ٢	تشريح عملي ٤ كيمياء عملي ١ انسجة عملي ٢ فسلجة عملي ٣		
الخميس	تشريح عملي ٥ كيمياء عملي ٦ انسجة عملي ٧ فسلجة عملي ٨	تشريح عملي ٦ كيمياء عملي ٧ انسجة عملي ٨ فسلجة عملي ٥	تشريح عملي ٧ كيمياء عملي ٨ انسجة عملي ٥ فسلجة عملي ٦	تشريح عملي ٨ كيمياء عملي ٥ انسجة عملي ٦ فسلجة عملي ٧		

ملاحظة : مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الدراسي الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	3.3. – 2.30
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات B	الجزء النظري من الجانب العملي طفيليات A
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جراثيم B	الجزء النظري من الجانب العملي جراثيم A	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جراثيم عملي و	جراثيم عملي ي	جراثيم عملي د	
الاثنين	جراثيم عملي ج امراض عملي ا ادوية عملي ب	جراثيم عملي ب امراض عملي ج ادوية عملي ا	جراثيم عملي ا امراض عملي ب ادوية عملي ج	طفيليات عملي ا	طفيليات عملي ب	طفيليات عملي ج	
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جراثيم A		امراض A		طب مجتمع A	طب مجتمع عملي A	الجزء النظري من الجانب العملي ادوية B
	امراض B		جراثيم B		جراثيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	طب مجتمع عملي B	الجزء النظري من الجانب العملي ادوية A
	ادوية B		ادوية A		ادوية A	جراثيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الثالثة / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور عبد الاله الجوادي وقاعة الدكتورة خالدة ملحم

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	3.3. – 2.30
السبت	امراض A		طفيليات A		الجزء النظري من الجانب العملي امراض A	الجزء النظري من الجانب العملي طفيليات B	الجزء النظري من الجانب العملي طفيليات A
	طفيليات B		امراض B		الجزء النظري من الجانب العملي جراثيم B	الجزء النظري من الجانب العملي جراثيم A	الجزء النظري من الجانب العملي امراض B
الاحد	امراض عملي و ادوية عملي ي طفيليات عملي د	امراض عملي د ادوية عملي و طفيليات عملي ي	امراض عملي ي ادوية عملي د طفيليات عملي و	جراثيم عملي د	جراثيم عملي ي	جراثيم عملي و	
الاثنين	جراثيم عملي ج امراض عملي ا ادوية عملي ب	جراثيم عملي ب امراض عملي ج ادوية عملي ا	جراثيم عملي ا امراض عملي ب ادوية عملي ج	طفيليات عملي ج	طفيليات عملي ب	طفيليات عملي ا	
الثلاثاء	تدريب سريري باطنية						
الاربعاء	جراثيم A		امراض A		طب مجتمع A	جراحة A	
	امراض B		جراثيم B		جراثيم B	ادوية B	
الخميس	باطنية A		باطنية B		طب مجتمع B	جراحة B	
	ادوية B		ادوية A		ادوية A	جراثيم A	

ملاحظة: مجموعة A دوامهم في قاعة الدكتور عبد الاله الجوادي ومجموعة B دوامهم في قاعة الدكتورة خالدة ملحم

جامعة نينوى ــ كلية الطب

جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الدراسي الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)

قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ -٣.٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ١			طب مجتمع ١	طب مجتمع عملي١		
	طب مجتمع ٢		طب مجتمع عملي٢	باطنية ٢			
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ١		طب عدلي ١		اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢	باطنية ٢		
الخميس	جراحة ١		توليد ١		باطنية ١		اخلاقيات الطب ٢
	توليد ٢		جراحة ٢		طب عدلي ٢		

يكون الدوام في القاعات الدراسية كالاتي :
يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .
يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر
يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

جامعة نينوى ــ كلية الطب
جدول التدريس النظري والعملي للمرحلة الرابعة / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور طاهر الدباغ وقاعة الدكتور خليل الشابندر وقاعة الدكتور مزاحم الخياط الطابق الثاني

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠	٢.٣٠ -٣.٣٠
الاحد	تدريب سريري جراحة / باطنية / نسائية						
الاثنين	باطنية ٢			طب مجتمع ٢	طب مجتمع عملي٢		
	طب مجتمع ١		طب مجتمع عملي١	باطنية ١			
الاربعاء	جراحة بولية ١	سلوكية ١	طب مجتمع ١		طب عدلي ١		اخلاقيات الطب ١
	طب مجتمع ٢		جراحة بولية ٢	سلوكية ٢	باطنية ٢		
الخميس	جراحة ١		باطنية ١		توليد ١		اخلاقيات الطب ٢
	توليد ٢		جراحة ٢		طب عدلي ٢		

يكون الدوام في القاعات الدراسية كالاتي :
يوم الاثنين يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور مزاحم الخياط في الطابق الثاني .
يوم الاربعاء يكون دوام المجموعة ١ في قاعة الدكتور طاهر الدباغ والمجموعة ٢ يكون الدوام في قاعة الدكتور خليل الشابندر
يوم الخميس يكون دوام المجموعة ١ في قاعة الدكتور خليل الشابندر والمجموعة ٢ يكون الدوام في قاعة الدكتور طاهر الدباغ

جامعة نينوى / كلية الطب

جدول التدريب السريري المرحلة الرابعة للعام الدراسي ٢٠٢٣- ٢٠٢٤ .

يكون التدريب ألسريري في كل مادة عشرة أسابيع فقط , ويكون التدريب حسب تنسيب التدريسي

يبدأ الكورس الأول من ١٧ / ٩ / ٢٠٢٣ ويستمر لغاية ١٩ / ١١ / ٢٠٢٣ وكما مبين أدناه :

أ- الطب الباطني

ب- نسائية

ج - جراحة

يبدأ الكورس الثاني من ٢٦ / ١١ / ٢٠٢٣ ويستمر لغاية ٢٥ / ٢ / ٢٠٢٤ وكما مبين أدناه :

(تم احتساب فترة امتحانات نصف السنة والعطلة الربيعية ضمن هذا الكورس)

أ- جراحة

ب- الطب الباطني

ج - نسائية

يبدأ الكورس الثالث من ٣ / ٣ / ٢٠٢٤ ويستمر لغاية ٥ / ٥ / ٢٠٢٤ وكما مبين أدناه :

أ- نسائية

ب- جراحة

ج - الطب الباطني

جدول التدريس النظري والسريري للمرحلة الخامسة / الفصل الدراسي الأول للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور طاهر الدباغ

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠
الأحد	أطفال	أطفال	جراحة	جلدية	اشعة	جراحة
الاثنين	باطنية	باطنية	عيون	جراحة	جراحة	أطفال مناقشة
الثلاثاء	نسائية	نسائية	أنف وأذن وحنجرة	طب	نفسية	نفسية
الاربعاء	تدريب سريري					
الخميس	تدريب سريري					

جامعة نينوى ـ كلية الطب

جدول التدريس النظري والسريري للمرحلة الخامسة / الفصل الدراسي الثاني للعام الدراسي (٢٠٢٣- ٢٠٢٤)
قاعة الدكتور طاهر الدباغ

الساعة / اليوم	٨.٣٠ – ٩.٣٠	٩.٣٠ – ١٠.٣٠	١٠.٣٠ – ١١.٣٠	١١.٣٠ – ١٢.٣٠	١٢.٣٠ – ١.٣٠	١.٣٠ – ٢.٣٠
الأحد	أطفال	أطفال	جلدية	اشعة	جراحة	جراحة
الاثنين	باطنية	باطنية	عيون	جراحة	جراحة	أطفال مناقشة
الثلاثاء	نسائية	نسائية	أنف وأذن وحنجرة	طب	نفسية	نفسية
الاربعاء	تدريب سريري					
الخميس	تدريب سريري					

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة الخامسة

للعام الدراسي ٢٠٢٣ - ٢٠٢٤ وحسب التقويم الجامعي المحدث

الشهر	9	9	10	10	10	10	11	11	11	11	11	11	12	12	12	12	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	5	5
اليوم	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	6	13	20	27	3	10	17	24	1	8
1	عصبية	اطفال	نسائية	كسور	بولية	امتحانات نصف السنة والعطلة الربيعية																													نفسية	
2	اطفال	عصبية	كسور	نسائية	مفاصل																														اشعة	
3	نفسية	اشعة	جلدية	عصبية	اطفال	نسائية																													عيون	
4	ENT	نفسية	اشعة	اطفال	عصبية	عيون																														
5	مفاصل	ENT	عيون	اشعة	جلدية	نفسية	عصبية																													
6	بولية	مفاصل	نفسية	عيون	اشعة	جلدية																														
7	كسور	بولية	مفاصل	ENT	عيون	نفسية																														
8	نسائية	كسور	بولية	مفاصل	ENT																															

جامعة نينوى \ كلية الطب

جدول التدريب السريري لطلبة المرحلة السادسة

للعام الدراسي ٢٠٢٣ - ٢٠٢٤

رقم اسبوع التدريب	١	٢	٣	٤	٥	٦	٧	٨	٩	١٠	١١	١٢	١٣	١٤	١٥	١٦	١٧	١٨	١٩	٢٠	٢١	٢٢	٢٣	٢٤	٢٥	٢٦	٢٧	٢٨	٢٩	٣٠	٣١	٣٢	٣٣	٣٤	٣٥	٣٦	٣٧	٣٨	٣٩	٤٠
من	/٧ ١٦	/٧ ٢٣	/٧ ٣٠	/٨ ٦	/٨ ١٣	/٨ ٢٠	/٨ ٢٧	/٩ ٣	/٩ ١٠	/٩ ١٧	/٩ ٢٤	/١٠ ١	٨/١٠	/١٠ ١٥	/١٠ ٢٢	/١٠ ٢٩	٥/١١	/١١ ١٢	/١١ ١٩	/١١ ٢٦	٣/١٢	/١٢ ١٠	/١٢ ١٧	/١٢ ٢٤	/١٢ ٣١	/١ ٧	/١ ١٤	/١ ٢١	/١ ٢٨	٤/٢	/٢ ١١	/٢ ١٨	/٢ ٢٥	/٣ ٤	/٣ ١٠	/٣ ١٧	/٣ ٢٤	/٣ ٣١	/٤ ٧	٧/٤
الى	/٧ ٢٠	/٧ ٢٧	٣/٨	/٨ ١٠	/٨ ١٧	/٨ ٢٤	/٨ ٣١	/٩ ٧	/٩ ١٤	/٩ ٢١	/٩ ٢٨	/١٠ ٥	/١٠ ١٢	/١٠ ١٩	/١٠ ٢٦	٢/١١	/١١ ٩	/١١ ١٦	/١١ ٢٣	/١١ ٣٠	/١٢ ١٤	/١٢ ٢١	/١٢ ٢٨	/١ ٤	١١/١	/١ ٢٥	/١ ٨	/٢ ١٥	١/٢	/٢ ٢٩	/٣ ٦	/٣ ١٣	/٣ ٢٠	/٣ ٢٧	/٤ ٣	/٤ ١٠	/٤ ١٧	/٤ ٢٤	/٤ ٣١	/٥ ٧	٧/٥
رقم اسبوع التدريب	٢	٣	٤	٥	٦	٧	٨	٩	١٠	١١	١٢	١٣	١٤	١٥	١٦	١٧	١٨	١٩	٢٠	٢١	٢٢	٢٣	٢٤	٢٥	٢٦	٢٧	٢٨	٢٩	٣٠	٣١	٣٢	٣٣	٣٤	٣٥	٣٦	٣٧	٣٨	٣٩	٤٠	
من	/٧ ٢٣	٦/٨	/٨ ٦	/٨ ١٣	/٨ ٢٠	/٨ ٢٧	٣/٩	/٩ ١٠	/٩ ١٧	/١٠ ٢٤	/١٠ ١	/١٠ ٨	/١٠ ١٥	/١٠ ٢٢	/١٠ ٢٩	/١١ ٥	/١١ ١٢	/١١ ١٩	/١١ ٢٦	/١٢ ٣	/١٢ ١٠	/١٢ ١٧	/١٢ ٢٤	/١ ٧	/١ ١٤	/١ ٢١	/١ ٢٨	٤/٢	/٢ ١١	/٢ ١٨	٣/٣	/٣ ١٠	/٣ ١٧	/٣ ٢٤	/٣ ٣١	/٤ ٧	/٤ ١٤				
الى	/٧ ٢٧	/٨ ٣	/٨ ١٠	/٨ ١٧	/٨ ٢٤	/٨ ٣١	٧/٩	/٩ ١٤	/٩ ٢١	/١٠ ٢٨	/١٠ ٥	/١٠ ١٢	/١٠ ١٩	/١٠ ٢٦	٢/١١	/١١ ٩	/١١ ١٦	/١١ ٢٣	/١١ ٣٠	/١٢ ٧	/١٢ ١٤	/١٢ ٢١	/١٢ ٢٨	/١ ٤	١١/١	/١ ٢٥	/١ ٨	/٢ ١٥	٨/٢	/٢ ٢٢	٧/٣	/٣ ٣	/٣ ١٠	/٣ ١٧	/٣ ٢٤	/٤ ٣١	/٤ ٤	/٤ ١١	/٤ ١٨			
A	أطفال				باطنية																																				جراحة
B	نسائية				جراحة																																				باطنية
C	باطنية				أطفال																																				نسائية
D	جراحة				نسائية																																				أطفال