نموذج وصف البرنامج الأكاديمي

اسم الجامعه : جامعة النهرين

الكلية/ المعهد: كلية الطب

القسم العلمي : الطب

اسم البرنامج الاكاديمي او المهني : بكالوريوس في الطب والجراحة العامة

اسم الشهادة النهائية :بكالوريوس في الطب والجراحة العامة

النظام الدراسي : فصلي

تاريخ اعداد الوصف : نيسان -2024

تاريخ ملىء الملف : نيسان- 2024

التوقيع :

اسم رئيس القسم : ا.د.انيس خليل نايل

التاريخ :

ا.م.د. عضد طارق حامد
مسؤول الاعتماد البرامجي

التوقيع :

اسم المعاون العلمي: ا.د. حيدر جواد كاظم

التاريخ : ٢٠٢٤/٤/٢٤

دقق الملف من قبل

شعبه ضمان الجودة والاداء الجامعي

اسم مدير شعبه ضمان الجودة والاداء الجامعي : ا.م.د.عادل محمد حسن

التاريخ ٢٠٢٤/٤/٢٤

التوقيع

مصادقة السيد العميد

Surgery

Program description / General Surgery Department

Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
2023/2024-	**GSRGen-32**	**General surgery**	**3**	**2**
2023/2024-	**GSRGPbl-32**	**General Surgery**	**3**	**2**

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	**Course Code**	**Course Name**	**Basic or optional**	**Knowledge**				**Skills**				**Ethics**			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**
3rd	SRGGen-32	Surgery & PBL	Basic	✓	✓	✓	✓								
	SRGGen-3C	General Surgery	Basic					✓	✓						
4th	SRGGit-41	Gastroenterology	Basic	✓	✓	✓	✓	✓	✓						
	SRGUro-42	Urology	Basic	✓	✓	✓	✓	✓	✓						
	SRGGen-4C	General surgery	Basic					✓	✓	✓	✓				
	MEDResp–41	Respiratory Medicine	basic	✓	✓	✓	✓	✓	✓	✓		✓	✓		
	MEDCar-41	Cardiology	basic	✓	✓	✓	✓	✓	✓	✓		✓	✓		
	SRGGit-41	Gastrointestinal Surgery	basic	✓	✓	✓	✓	✓	✓	✓		✓	✓		
5th	SRGOrt-51	Orthopedics	Basic	✓	✓	✓	✓	✓	✓						
	SRGEnt-51	ENT	Basic	✓	✓	✓	✓	✓	✓						
	SRGOpt-52	Ophthalmology	Basic	✓	✓	✓	✓	✓	✓						
	SRGRad-52	Radiology	Basic	✓	✓	✓	✓	✓	✓						
	SRGEm-52	Surgical emergencies	Basic	✓	✓	✓	✓	✓	✓						
	SRGSub-52	Surgical Emergency	basic	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	SRGEnt-5C	Clinical ENT	Basic					✓	✓	✓	✓	✓	✓	✓	✓
	SRGOrt-5C	Clinical Orthopedics	Basic					✓	✓	✓	✓	✓	✓	✓	✓
	SRGOpt-5C	Clinical Ophthalmology	Basic					✓	✓	✓	✓	✓	✓	✓	✓
	SRGRad-5C	Clinical Radiology	Basic					✓	✓	✓	✓	✓	✓	✓	✓
	SRGPla-5C	Plastic surgery	Basic					✓	✓	✓	✓	✓	✓	✓	✓
6th		Surgery	Basic					✓	✓	✓	✓	✓	✓	✓	✓
	SRGSrg–	**Surgery**	**basic**	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	

	6C														

Course Description Form

1. Course Name: cardiothoracic and vascular surgery
2. Course Code: MEDResp–41/MEDCar-41/SRGGit-41/SRGSub-52/SRGSrg-6C
3. Semester / Year: 1st semester, 4th year; 2nd semester, 5th year
4. Description Preparation Date: March 21, 2024
5. Available Attendance Forms: physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2 / 24
7. Course administrator's name (mention all, if more than one name)
Name: Yaser Aamer Eisa Email: yaseraamer@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**1–to enable the student to acquire knowledge of the pathophysiology of the comm important diseases of the cardiothoracic and vascular systems.** **2–To enable the student to know the symptoms and signs of the comm**

	cardiothoracic and vascular di diseases and to appreciate the presentation of them **3-To enable the student to be familiar with the diagnostic tools used to reach diagnosis** **4-To help the student formulate a safe treatment plan** **5-To have good knowledge of the emergency cardiothoracic and vascu conditions and how to deal with them** **6-To have knowledge of the groups of drugs used in cardiothoracic and vascu diseases**. ….. • ….. • …..

9. Teaching and Learning Strategies

Strategy	The teaching is based on the lecture system which is given as power point slides, w interaction with the students.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		1-Trachea and forging boc 2-surgical management bronchiectasis.	lecture	Classroom discussion

2	2		1-surgical aspect of TB 2-Pleural diseases.	lecture	Classroom discussion
3	2		1-pulmonary cancer 2-lung transplant	lecture	Pop-up quizzes
4	2		1-Introduction to heart surgery 2-Surgery for acquired heart diseases	lecture	Classroom discussion
5	2		1-Surgery for congenital heart diseases 2-Chronic peripheral vascular disease	lecture	Classroom discussion a quizzes
6	2		1-Diseases of aorta 2-Heart transplant	lecture	Classroom discussion

7	2		1-Esophagus1: Oesophagitis, Dysphagia, Achalasia, Reflux, gastro esophageal reflux disease (GERD), Hiatus hernia 2-Esophagus2: Congenita anomaly, foreign body (F.B.), Tumors, Surgical aspect of Achalas Reflux, Hiatus Hernia	lecture	Classroom discussion a quizzes
8	2		1-vascular trauma 2-thoracic trauma	lecture	Classroom discussion a homework assignment
9	2		1-venous disorders 2-abdominal aortic aneurysm	lecture	quizzes

11. Course Evaluation

Evaluation methods include the following:

Quizzes 2 out of 100 degrees

Homework tasks 2 out of 100

Mid term exam 26 out of 100

Final exam 70 degrees

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	Bailey and Love‟s textbook of surgery Short Practice of Surgery by Hamilton Baiely

	Schwartz Principles and Practice of Surgery Physical signs in clinical surgery by Hamilton Bailey Demonstration of physical signs by Norman N Brows
Main references (sources)	Bailey and Love‟s textbook of surgery Short Practice of Surgery by Hamilton Baiely Schwartz Principles and Practice of Surgery Physical signs in clinical surgery by Hamilton Bailey Demonstration of physical signs by Norman N Brows
Recommended books and references (scientific journals, reports…)	Bailey and Love‟s textbook of surgery Short Practice of Surgery by Hamilton Baiely Schwartz Principles and Practice of Surgery Physical signs in clinical surgery by Hamilton Bailey Demonstration of physical signs by Norman N Brows
Electronic References, Websites	

Course Description Form

1. Course Name: ENT
2. Course Code: SRGEnt-51
3. Semester / Year: 1st Semester / 5th year
4. Description Preparation Date:

5. Available Attendance Forms: Physical

6. Number of Credit Hours (Total) / Number of Units (Total): 30/ 1.5

7. Course administrator's name (mention all, if more than one name)

Name: 1. Asst.prof Jaafar M. Kadhim (FICMS-ENT)

2. Lecturer Samah Abbas Hammadi (CAB-ORL& HNS)

3. Lecturer Osama Salim Hasan (FICMS-ENT)

Email: 1. j_m_k65@nahrainuniv.edu.iq

2. sam82abbas@nahrainuniv.edu.iq

3. usama_salim2010@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	At the end of the course the learners will be able to: 1. Recognize, and manage emergency, and common conditions in ENT. 2. Recognize conditions requiring referral for an expert after stabilizing the condition. 3. Stimulate interest in the major disciplines and subspecialities of otolaryngology. 4. Stimulate interest in academic research in the field of otolaryngology.

9. Teaching and Learning Strategies

Strategy	Active learning/ instruction/ problem solving

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	1. Recall of etiology, presentation, risk factors and complications. 2. Recognize the critical steps in management.	Nasal trauma/ epistaxis	Lecture/ Reading course material	Strategic questioning
2	2	1. Correlate anatomy with pathology. 2. Predict examination findings according to anatomical site of involvement.	Anatomy of physiology pharynx/larynx	Lecture/ Reading course material/ assignment	Reviewing assignments strategic questioning.
3	2	1. Recall causes of diseases. 2. Predict clinical features, complications 3. Discuss management outlines	Otalgia (otitis externa/ AOM)	Traditional lecture/ Reading course material	Quiz
4	2	1. Discuss clinical features. 2. Discuss treatment options.	Allergic rhinitis	Lectures / course material	Strategic questioning
5 & 6	Mid-term exams				
7	2	1. Recognize the clinical features. 2. Identify complications 3. Recall treatment options 4. Identify indications for surgical intervention	Sinusitis	Traditional lecture/ reading course material	Assignment
8	2	1. Identify clinical features 2. Use CENTOR score to decide on prescribing AB 3. Identify features of serious conditions presenting as tonsillitis/ pharyngitis. 4. Identify indications for surgery 5. Discuss management of post operative complications.	Pharyngitis / tonsillitis/ the tonsil & adenoid	Traditional lecture/ reading course material	Quiz
9	2	1. Correlate anatomical and pathological changes with the clinical features	Laryngitis/ dysphonia	Traditional lecture/ course	Strategic questioning

		2. Localize lesions depending on clinical clues 3. Put a treatment plan		material	
10	2	1. Correlate anatomical and pathological changes with the clinical features 2. Localize lesions depending on clinical clues 3. Discuss treatment options 4. Recall aspects of tracheostomy care	Stridor/ CA pharynx	Traditional lecture/ course material	Strategic questioning
11	2	1. Identify the type of nasal mass depending on clinical clues. 2. Recognize features of malignancy 3. Recall treatment options. 4. Recognize features of OME 5. Identify indications for surgery 6. Investigate causes of OME	Nasal masses/ OME	Traditional lectures/ course material	Assignment
12	2	1. Recognize features of COM/ inner ear diseases 2. Identify features of complications 3. Discuss treatment modalities. 4. Put a differential diagnosis depending on clinical features.	Chronic otitis media/ Inner ear diseases	Traditional lecture/ course material	Quiz
13	2	___	Miscellaneous	Traditional lecture	Strategic questioning

4. Course Evaluation

Out of 100, 26 marks are allocated to the mid-term exam, another 4 degrees to the tasks assigned to the student such as daily preparation, daily oral, quizzes, reports …. etc.

The final examination is 70% of the total course weight.

Final Exam: (70%) consists of: – multiple-choice questions with single best answer (40 items- 40 marks) – Essay Questions (5 cases-30 marks) The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. Students failing to attain the 50% cut-off mark are required to re-sit for a second trial examination. Failing the second trial entails retaking the course.

5. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	—
Main references (sources)	
Recommended books and references (scientific journals, reports…)	1. Bailey and Love's textbook of surgery 2. Scott brown otorhinolaryngology 3. Logan turner disease of nose throat and ear.
Electronic References, Websites	—

Course Description Form

1. Course Name: GIT
2. Course Code: SRGit-41

3. Semester / Year: 1st semester , 4th year
4. Description Preparation Date:21st , Feb. 2024
5. Available Attendance Forms: physical attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
3 Hours per week for 15 weeks … Total 45 Hours
7. Course administrator's name (mention all, if more than one name)
Name: TAQI SAADOON ATIYAH Email: taqi.atyia@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	1-To enable the student to gain a good level of knowledge of the basic and standard anatomy, pathophysiology and management of gastrointestinal & liver diseases and to familiarize the student with the more sophisticated and specific updates that are found in more specialized units 2-To enable the student to understand the differential diagnosis of gastrointestinal & liver diseases 3-To have a good knowledge of the basic and emergency radiology of day to day surgical and medical cases 4-To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of the clinical picture of the patient's complaints.
9. Teaching and Learning Strategies	
Strategy	The teaching is based on lecture system. The lectures are

	given in power point slide format in the halls of the colleg during the lecture, questions and discussions a encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certa lectures with personalized feed back

10. Course Structure

Week	Hours		Unit or subject name	Learning method	Evaluation method
1	1		Introduction	Lecture	Classroom discussion and question
1	2		**Introduction. Definition of GIT Curricul References. Aims of the study. Bluep Assessment, Quizzes, Midterm Examination (T Limit) & Final examination.**	Lecture	Classroom discussion and question
2	2		**Congenital anomaly of the gastrointesti tract. Intestinal atresia. Anus & rectu Hirschsprung's disease, Imperforated anu**	Lecture	Pop-up quizzes a classroom discussion
2	2		**Esophagus. Oesophagitis, Dysphag Achalasia, Reflux, GERD, Hiatus hernia.**	Lecture	Classroom discussions
3	2		**Surgical aspects of the Esophag Congenital anomaly, F.B., Tumors, Surgi aspect of Achalasia, Reflux, Hiatus Hernia**	Lecture	Classroom discussion and questions
3	2		**Stomach & Duodenum. Secretary tes Radiology Endoscopy, Gastritis, Pep ulcers.**	Lecture	Classroom discussion and questions Pop-up quiz

4	2		**Surgical aspects of the Stomach Duodenum. Acute dilatation, Surgi treatment of peptic ulcer.Tumc postoperative surgery complications.**	Lecture	Classroom discussion and questions Pop-up quiz
5	1		**Gastro-intestinal bleeding & its treatmen**	Lecture	Classroom discussion and questions, assignment
6 and 7	5		**Liver. Investigations, Jaundice, Hepati Cirrhosis, Portal hypertension**	Lecture	Classroom discus assignment
8	1		**Liver Abscess, Cysts including Hyda cyst, Tumors**	Lecture	Classroom discussion and questions ,assignment
9	2		**Gall bladder & Biliary tree. Investigatic Congenital anomaly, Injuries, ston Cholecystitis, Obstructive jaundice Tumors.**	Lecture	Classroom discussion , pop-u quiz
10	1		**Laparoscopy and minimum invas surgery**	Lecture	Classroom discussion , pop-u quiz
10	2		**Pancreas. Pancreatitis acute & chron cysts, Tumors Exocrine & Endocrine**	Lecture	Classroom discussion and questions
11	1		**Mesentery & peritoneum. Peritonitis, Cys Subphrenic abscess**	Lecture	Classroom discussion and questions
11	2		**Inflammatory bowel diseases, Irrita bowel and its surgical aspects**	Lecture	Classroom discussion and questions
12	1		**Appendix. Appendicitis, Appendicu Mass, Tumors**	Lecture	Classroom discussion and questions
12	2		**Intestinal obstruction. Types, paralytic ile**	Lecture	Classroom

			management.		discussion and questions
12	2		**Small & Large bowel. Mal-absorpti Diarrhea, Coeliac disease, Tropical spru,**	Lecture	Classroom discussion and questions
13	2		**Intestinal Lymphoma, Inflammatory bo diseases, Irritable bowel.**	Lecture	Classroom discussion and questions
13	1		**Small intestinal fistula, mass, tumors.**	Lecture	Classroom discussion and questions
13	1		**Spleen. Indications for surgery. Surgi aspect of portal hypertension**	Lecture	Classroom discussion and questions
14	3		**Colon and rectum. Benign & Malign tumors Colon, rectum & anus. Rec prolaps, Injury, Pilonidal sinus,**	Lecture	Classroom discussion and questions
14	1		**Anal fissure, stricture, perianal absce and hemorrhoid.**	Lecture	Classroom discussion and questions
15	1		**Obesity**	Lecture	Classroom discussion and questions
15	2		**Oral cavity, tumors, tongue diseases tumors**	Lecture	Classroom discussion and questions

11. Course Evaluation

Evaluation methods include the following:

Quizzes: 2 out of 100 (multiple quizzes are performed and the average is taken)

Mid-semester exam: 28 out of 100

Final semester exam: 70 out of 100

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Baiely's & Love's Short Practice of Surgery Davidson's Principles of Medicine
Main references (sources)	Baiely's & Love's Short Practice of Surgery Davidson's Principles of Medicine

Course Description Form

11. Course Name: Radiology
12. Course Code: SRGRad-52
13. Semester / Year: 2nd semester , 5th year
14. Description Preparation Date:21st , Feb. 2024
15.Available Attendance Forms: physical attendance
16.Number of Credit Hours (Total) / Number of Units (Total)
2/30
17. Course administrator's name (mention all, if more than one name)
Name: Noor Kathem Nee'ma Al-Waely Email: noor83kadhem@nahrainuniv.edu.iq

18. Course Objectives

Course Objectives	1-To enable the student to gain a good level of knowledge of the basic and standard radiological investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units 2-To enable the student to choose a meaningful imaging investigation or investigation plan for the clinical problem, and to develop strategies for imaging various clinical conditions. 3-To have a good knowledge of the basic and emergency radiology of day to day surgical and medical cases 4-To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of imaging modalities to make sure not to risk missing life-threatening diagnosis, the safe choice of investigation that does not delay patient management, safe use of radiation in situations where radiation protection is paramount (introduction of the principle of ALARA, and safe use of contrast media) •

19. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the college during the lecture, questions and discussions are encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certain lectures with personalized feed back

20. Course Structure

Wee	Ho	Requi red	Unit or	Lear ning	Evaluation method

k	urs	Learning Outcomes	subject name	method	
1	1		Introduction	Lectur	Classroom discussion and question
1 and	3		Chest imaging	Lectur	Classroom discussion and question
3	2		Cardiac imaging	Lectur	Pop-up quizzes and classroom discussion
4	1		Abdomi emerge es	Lectur	Classroom discussions
4	1		Peritone and retrope oneal disease	Lectur	Classroom discussion and questions
5	2		Gastroi stinal imaging	Lectur	Classroom discussion and questions Pop-up quiz
6	2		Hepatol ary system imaging	Lectur	Classroom discussion and questions Pop-up quiz
7	2		Urinary tract imaging	Lectur	Classroom discussion and questions, assignment
8 and	3		Bone imaging	Lectur	Classroom discussion and questions, assignment

9 and	2		Women imaging	Lectur	Classroom discussion and questions ,assignment
10 an 11	2		Spine imaging	Lectur	Classroom discussion , pop-up quiz
11 an 12	2		CNS imaging	Lectur	Classroom discussion , pop-up quiz
12	1		Joint disease radiolog	Lectur	Classroom discussion and questions
13	2		Head ar neck radiolog	Lectur	Classroom discussion and questions
14	2		Angiogr hy	Lectur	Classroom discussion and questions
15	2		Interver onal radiolog	Lectur	Classroom discussion and questions

21. Course Evaluation

Evaluation methods include the following:

Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)

Mid-semester exam: 25 out of 100

Final semester exam: 70 out of 100

22. Learning and Teaching Resources

Required textbooks (curricula r books, if	Rochal A., diagnostic imaging, 7th edition, 2013

any)	
Main references (sources)	Rochal A., diagnostic imaging, 7th edition, 2013
Recommended books and references (scientific journals, reports...)	Michael Y. M. Chen, Basic Radiology, 2nd edition, 2011 Richard F. Daffner, clinical radiology, the essentials, 4th edition, 2014.
Electronic References, Websites	https://radiopaedia.org/

Course Description Form

23. Course Name: Surgical emergency

24. Course Code: SRGSrg-6C
25. Semester / Year: 2nd semester , 5th year
26. Description Preparation Date:20th , march. 2024
27.Available Attendance Forms: physical attendance
28.Number of Credit Hours (Total) / Number of Units (Total)
2/30
29. Course administrator's name (mention all, if more than one name)
Name: Ammar Noori Al-Hamdani Email: dr.anh1976@nahrainuniv.edu.iq
30. Course Objectives

Course Objectives	**1.** To enable the student to gain a good level of knowledge of the basic and standard surgical investigations and to familiarize the student with the more sophisticated and specific investigations that are found in more specialized units **2.** To enable the student to choose a meaningful surgical investigation or investigation plan for the clinical problem, and to develop strategies for managing various clinical conditions. **3.** To have a good knowledge of the surgical emergency of day to day surgical and medical cases **4**. To develop and strengthen the concept of safety in clinical practice, including the safe interpretation of surgical conditions modalities to make sure not to risk missing life-threatening diagnosis, the safe choice of investigation that does not delay

	patient management.

31. Teaching and Learning Strategies

Strategy	The teaching is based on lecture system. The lectures are given in power point slide format in the halls of the colle during the lecture, questions and discussions a encouraged to enhance the learning experience of the student. Assignments are allocated to the students in certa lectures with personalized feed back

32. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		ATLS	Lecture	Classroom discussion and question
2	1		Torso trauma	Lecture	Classroom discussion and question
3	1		Small & large bowel injuries	Lecture	Classroom discussion and question
4	1		Genitourinary tract injuries	Lecture	Classroom discussion and question

5	2		- Skin graft /flap - Cleft lip and cleft palate	Lecture	Pop-up quizzes and classroom discussion
6	2		Breast	Lecture	Classroom discussion and questions
7	2		- Management of head injuries - Management of spinal injuries	Lecture	Classroom discussion and questions
8	2		- Surgical oncology - Cervical lymph nodes & salivary glands	Lecture	Classroom discussion and questions
9	2		- Clinical approach in vascular trauma - Clinical approach in thoracic trauma	Lecture	Classroom discussion and questions
10	2		Thyroid disease	Lecture	Classroom discussion and questions
11	1		Lymphatic disease	Lecture	Classroom discussion and questions
12	1		Burn	Lecture	Classroom discussion and questions
13	2		Anaesthesia	Lecture	Classroom discussion and questions
14	3		- Venous disease - Aortic aneurysm - Venous ulcer	Lecture	Classroom discussion and questions
15	1		Pain management	Lecture	Classroom discussion and

					questions
16	1		Pressure sore	Lecture	Classroom discussion and questions

33. Course Evaluation

Evaluation methods include the following:

Quizzes: 5 out of 100 (multiple quizzes are performed and the average is taken)

Mid-semester exam: 25 out of 100

Final semester exam: 70 out of 100

34. Learning and Teaching Resources

Required textbooks (curricular books, if any)	- Baiely's & Love's Short Practice of Surgery -Yomans neurosurgery 2023 -Smith textbook of Urology - Morgan & Mikhail's clinical anesthesiology - Torento Notes2024 -Practical management of pain 5th edition Clinical methods in pain medicine 2nd edition - Rutherford's vascular surgery and endovascular therapy …10th edition 2023 - Schwartz's principles of surgery…11th edition 2019
Main references (sources)	- Baiely's & Love's Short Practice of Surgery -Grabb and Smith textbook of plastic surgery .. 2018
Recommended books and references (scientific journals, reports...)	- Medscape journal -European guidelines of urology
Electronic References,	

Websites	

Internal Medicine

Course Description Form

1. Course Name:

General Medicine

2. Course Code:

MEDMed 6c12

3. Semester / Year:

Sixth year – First & second semester (Clinical)

4. Description Preparation Date:

1-3-2024

Academic year 2023- 2024

5. Available Attendance Forms:

Physical (mandatory) = Daily attendance for clinical and Virtual(complementary)

6. Number of Credit Hours (Total) / Number of Units (Total)

Clinical : 200 h / 8 wk.

hours / wk. : 25h/ wk - Credits:

7. Course administrator's name (mention all, if more than one name)

Name: Prof. Hasan Aziz

Assistant Prof. Dr.Haider Abdulhameed

Senior lecturer Dr. Jassmin Abbas

Senior lecturer Dr. kholod abbas

Email:

hah_hamdani@nahrainuniv.edu.iq

dr.haider.abdulhameed@nahrainuniv.edu.iq

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kholod.abbass85@nahrainuniv.edu.iq

8. Course Objectives

Course Objectiv	Knowledge

Upon completion of this course, the 6th year medical student at Al-Nahrain College of Medicine will be able to:

A. **Recognize the physiologic mechanisms that explain key findings in the history and physical exam.**
B. **Describe the etiologies, pathophysiology, clinical features,differential diagnosis, and related diagnostic testing and management of common inpatient medical conditions.**
C. **List the indications for the most commonly performed investigations.**
D. **Demonstrate knowledge of human anatomy by recognizing key structures on various imaging modalities.**

Problem based and Clinical Skills

A. **Complete a patient's history and physical exam in a respectful, logical organized and thorough manner. When necessary, obtain supplemental historical information from collateral sources, such as significant others or previous physicians.**
B. **Evaluate and prioritize problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes.**
C. **Formulate a differential diagnosis based on the findings from the history and physical examination and apply differential diagnosis to help guide diagnostic test ordering and sequencing.**
D. **Formulate an initial therapeutic plan and explain the extent to which the therapeutic plan is based on pathophysiologic reasoning and scientific evidence of effectiveness.**
E. **Advice patients and colleagues on the risks, benefits, limitations and indications of each of the most commonly performed investigations.**
F. **Identify critical and high priority imaging findings on the most commonly performed imaging exams and discuss their importance in clinical patient management.**

<u>Practice-Based Learning and Improvement</u>

A. **Recognize when additional information is needed to care for the patient and demonstrate ongoing commitment to self-directed learning.**
B. **Demonstrate ability to answer clinical questions using evidence-based medicine.**
C. **Analyze gaps in knowledge and skills and see resources including assistance from colleagues to address gaps.**
D. **Consider factors when performing diagnostic testing, including pretest probability, performance characteristics of tests (sensitivity, specificity, and**

likelihood ratios) and cost, risk and patient preferences and interpret these tests.

E. Build a model for solving imaging related problems that effectively integrates indications for imaging, evidence-based uses for imaging, analysis of imaging findings and generation of an imaging differential diagnosis.

Systems-Based Practice

A. Differentiate the role and contribution of each team member to the care of the patient, and call on interdisciplinary resources (case workers, nurses, physical therapists, etc.) to provide optimal and comprehensive care.
B. Apply health systems-based thinking to address outcomes in patient care.
C. Consider patient, physician, and system barriers (including cost) to successfully negotiate treatment plans and patient adherence; and understand strategies that may be used to overcome these barriers.

Interpersonal and Communication Skills

A. Demonstrate appropriate listening and verbal skills to communicate empathy, elicit information regarding the patient's preferences and provide basic information and an explanation of the diagnosis, prognosis and treatment plan.
B. Perform as an effective member of the patient care team, incorporating skills in inter-professional communication and collaboration including giving and receiving feedback.
C. Document and orally present new patient and follow up patient cases in a thorough and focused manner.

Professionalism

A. Demonstrate a commitment to caring for all patients regardless of their medical diagnoses or social factors.
B. Exhibit teamwork and respect toward all members of the health care team, as manifested by reliability, responsibility, honesty, helpfulness, selflessness, and initiative in working with the team.
C. Demonstrate a positive attitude towards learning by showing intellectual curiosity, initiative, honesty, integrity, and dedication.

	Ethics **1. Uphold ethical standards in the application of diagnostic and investigative techniques, ensuring patient well-being and autonomy.** **2.Recognize any ethical problems and medicolegal concerning of medical diseases, and the student** **should respect the privacy of the patient.** **3. Recognize and address potential biases in the evaluation & management of patients with medical disease**.
9. Teaching and Learning Strategies	
Strategy	**Clinical sessions:** **The students are divided into small groups each of 15 students.** **Assessment Strategies** **1. Continuous Assessment:** **- Participation in interactive sessions.** **2. Formative assessments:** **- Discussion and oral tests.** **3. Summative assessments:** **- Case Presentations:** **- Conducting the clinical exam.** **- Evaluation based on diagnosis and management.**

	4. Group Participation: **- Active involvement in group discussions.** **- Criteria include contribution and engagement.** **5. Skills Assessment:** **- Practical assessments of clinical skills.** **- Evaluation of proficiency in interventions.** **-Presenting important ideas for community service** **-The initiative to express effective and constructive opinions and suggestions** **6. Case Analysis:** **- Analysis of written or virtual case studies.** **- Focus on clinical reasoning and management.** **7. Self-Assessment:** **- Online quizzes and reflective exercises.** **- Students evaluate understanding and set goals.** **8. Comprehensive Examinations:** **- Final clinical exams.** **- Assess overall comprehension and application.**

10. Course Structure

Week	Hours	Tutors	Content	Objectives
1	25	**Dr. Moyed Basheer** **Dr. Rafid Basheer**	**Cardiovascular Medicine:** **History and Physical exam** **ECG** **Acute and Chronic Heart Failure** **Ischemic Heart Disease** **Arrhythmia**	**Assess patient with suspected cardiac disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the ECG and differentiate between conditions and arrange appropriate management** **Demonstrate skills in carrying out ECG testing**
			Pulmonology: **History and**	**Assess patient with suspected respiratory disease by demonstrating knowledge in history**

2	25	**Dr. Haider Abdulhameed**	**Physical exam** **Chest X-ray** **Pulmonary function test** **Asthma, COPD** **Interstitial Lung Diseases** **Infections of respiratory** **system**	**taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the CXR and differentiate between conditions and arrange appropriate management** **Identify key abnormalities in the PFT and differentiate between conditions and arrange appropriate management** **Demonstrate skills in coaching patient about the proper use of inhalers** **Communicate with patients and their relatives about the importance of inhaler therapy in minimizing side effects and optimizing control**
		Dr. Waseem Fadhil	**Hematology:** **History and Physical exam** **Complete blood count**	**Assess patient with suspected hematologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential**

3	25		**Anemia** **Acute and Chronic leukemias** **Lymphomas** **Multiple Myelomas**	**diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the CBC and differentiate between conditions and arrange appropriate management** **Demonstrate skills in preparing patient for bone marrow examination** **Communicate empathetically with patients diagnosed with malignant diseases**
4	25	**Dr. Hasan Aziz** **Dr. Abdulkareem alghazragi**	**Neurology:** **History and Physical Exam** **Stroke** **Movement Disorders** **Epilepsy** **Meningitis**	**Assess patient with suspected neurologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Demonstrate skills in preparing patient for**

				lumbar puncture **Communicate effectively with patient about the benefits and risks of lumbar puncture**
5	25	**Dr. Mahmoud Shakir** **Dr.Jalal Abd Ali**	**Endocrinology:** **History and Physical exam** **Thyroid function test** **Diabetes type 1 and 2** **Thyroid disorders** **Pituitary Disorders** **Adrenal Disorders**	**Assess patient with suspected endocrine disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Communicate the implications of diabetes effectively to patients** **Apply Knowledge in the management and follow up of patient with diabetes** **Identify key abnormalities in the thyroid function test and differentiate between conditions and arrange appropriate management** **Demonstrate skills in coaching diabetic patient for the self-monitoring and regular check ups**

6	25	**Dr. Arif Sami** **Dr. Jawad Kadhum**	**Nephrology:** **History and Physical Exam** **Renal function test and eGFR** **Acute and Chronic renal failure** **Glomerulonephritis** **Renal disease in systemic diseases**	**Assess patient with suspected hematologic disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan accordingly** **Identify key abnormalities in the renal function test and differentiate between conditions and arrange appropriate management** **Demonstrate skills in the preparation of patient for hemodialysis** **Analyze patient history and physical examination findings to recommend type of renal replacement therapy**
7	**25**	**Dr. Fadhil Abdulla** **Dr. Ali Sameer**	**Gastroenterology:** **History and Physical Exam** **Liver function test** **Acute and chronic liver failure** **Upper and lower**	**Assess patient with suspected gastroenterologic or liver disease by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial**

			GI bleeding **Ascites** **Infectious diseases of the GI and Liver**	**patient data** **Arrange diagnostic work up** **Choose a management plan** **Communicate the implications of viral hepatitis to patient and family** **Identify key abnormalities in the LFT and differentiate between conditions and arrange appropriate management** **Demonstrate skills in performing peritoneal aspirate**
8	**25**	**Dr. Araz Bassim** **Dr. Nazar**	**Acute Medicine:** **Poisoning** **Cardiac emergencies** **Respiratory emergencies**	**Assess patient with suspected poisoning by demonstrating knowledge in history taking and recognition of key physical signs.** **Formulate differential diagnosis based on initial patient data** **Arrange diagnostic work up** **Choose a management plan**
11. Course Evaluation				

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course.

The marks are distributed as follows:

Daily assessing through questioning & clinical cases approach
Final course exam,(long case exam ,oral viva exam, recall information questions & analytic clinical question with slides show, OSCI).

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	**-Macleod s Clinical Examination**
Main references (sources)	**- Davidson s principels and practice in Medicine**
Recommended books and references (scientific journals, reports…)	**UPTODATE**
Electronic References, Websites	**Web and internet as source of information**

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
6th year	NM06-MEDMed-6c	Internal Medicine	Basic			X	X	X	X	X	X	X	X	X	X

Obstetrics and Gynecology

Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses/subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college, and scientific department) with the number of credit hours.

Learning Outcomes: 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 program's objectives.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Al Nahrain university

Faculty/Institute: . Al Nahrain medical college

Scientific Department: Gynecology and obstetrics.

Academic or Professional Program Name: Gynecology and obstetrics.

Final Certificate Name: **Bachelors Medicine and General Surgery**

Academic System: Al Nahrain university / Al Nahrain medical college

Description Preparation Date: **2023**

File Completion Date: **2024**

Signature:

Head of Department Name:

Professor Dr Enas Adnan

Date:**2024**

Signature:**Haider Jawad Khadim**

Scientific Associate Name:

Date:**2024**

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

To strive diligently to advance and excel at the scientific and medical levels to international levels in terms of quality, sobriety, scientific research, and the desire to obtain a leading position among the world's universities at the international level.

2. Program Mission

Preparing doctors with high competence in understanding the medical problems that a woman may face during her pregnancy and dealing with her condition in a skilled manner, with the integration of other teams if the case requires such intervention, considering the standards of the ethical profession and developing human resources from academic leaders and faculty members with advancement. Scientific research to develop the health situation in the country.

3. Program Objectives

1. The graduate medical student can deal with the patient by taking a detailed medical history and conducting the appropriate clinical examination while providing appropriate primary health care for obstetrics and gynecology cases.

2. They must have an awareness of when multidisciplinary care is needed and must be able to provide advice to patients in certain circumstances.

3. Encouraging, developing and developing the educational and teaching skills of members of the branch body while enhancing and raising purposeful research and applied production.

4. Program Accreditation

Iraqi National Guideline on Standards for Established and Accrediting Medical School

5. Other external influences

Baghdad Health Directorate– Al–Karkh and their Hospitals

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	**2**	Fourth–year 2+1=3 Fifth–year 2+1=3 Fourth clinical =2 Sith clinical =10		
College Requirements	**2**			
Department Requirements	**2**			
Summer Training	**Yes**			
Other				

1. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			Theoretical	**Practical**
Fourth year	**GYNGy-41** **GYNGy-42**	1st semester 2nd semester	**2hrs/week** **1hr/week**	
Fifth year	**GYNGy-51** **GYNGy-52**	1st semester 2nd semester	**2hrs/week** **1hr/week**	
Fourth year	**GYNGy-4C**	Clinical course		**2hrs/daily** **8hrs/weekly** **7weeks**
Sixth year	**GYNGy-6C**	Clinical course		**6hrs/daily** **30hrs/weekly**

				10weeks

* This can include notes on whether the course is basic or optional.

2. Expected learning outcomes of the program	
Knowledge	
A. Knowledge and Understanding	A. Understanding the normal physiology of a female. B. Knowledge of the common obstetrical conditions (normal and abnormal). C. Understating the common gynecological issues and emergencies. D. knowledge about the ABC management of obstetrical emergencies. E. Understanding the primary care of the neonate. F. Research methodology and evidence-based practice.
Skills	
Subject-specific skills.	A. Learning Problem Solving and Clinical Skills/Patient Care through Taking an effective history and physical, developing a differential diagnosis, and developing a management plan for common disorders and conditions. B. Learning Interpersonal and Communication Skills by Contributing to effective teamwork by communicating with the healthcare team in a timely, thorough, and accurate manner. C. Develop patient-centered communication skills to effectively convey healthcare information to patients.
Thinking Skills	A. Connecting the basic science with the clinical science. B. Think logically about the symptoms and connect them to a professional diagnosis. C. Critically evaluate the reliability, validity, and significance of data in applying initial management. D. Priories the life-saving measures. E. Apply proper investigation to reach the diagnosis. F. Designed proper initial treatment.
Ethics	
	Use a respectful non-aggressive manner in counseling patients regarding lifestyle choices that contribute to optimal health.

3. Teaching and Learning Strategies

- Teaching methods include theoretical lectures for the undergraduates using PowerPoint presentations and medical videos,
- Seminar
- preparation of logbooks,
- clinical sessions at the Obs/Gyn ward, labor ward,
- operating theatre
- Slideshows of gynecological and obstetric conditions.
- Using dummies in the skill lab. to demonstrate different approaches to clinical examination

4. Evaluation methods

- Theory written exam.
- Clinical examination as LONG cases, ORAL cases, and OSCE cases.
- Slide examination.
- Formative and summative assessment.

5. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor 2 Assistant Professor 2 Teacher 5	Bachelor of Medicine and General Surgery	Iraqi or Arab Board for Obstetrics and Gynecology			9	

Professional Development

Mentoring new faculty members

Teaching methods course

Medical education courses

Professional development of faculty members

International and local conferences, workshops, seminars, and continuous medical education courses.

6. Acceptance Criterion

Central admission from the ministry

7. The most important sources of information about the program

The ministry and College strategic plan.

8. Program Development Plan

Collage strategic plane.
Through feedback from students, residents, and stakeholders.
Global development in academic programs.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
4th	GYNGy-41	1st semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	GYNGy-42	2ed semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
5th	GYNGy-51	1st semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	GYNGy-52	2ed semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
4th clinical	GYNGy-4C		Basic	√	√	√	√	√	√	√	√	√	√	√	√
6th clinical	GYNGy-6C		Basic	√	√	√	√	√	√	√	√	√	√	√	√

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

1. Course Name:

Fourth year/ 1st semester &2nd semesters
Fifth year 1st &2nd semesters
Sixth year clinical
Fourth year clinical

2. Course Code:

GYNGy-41 & GYNGy-42
GYNGy-51 & GYNGy-52
GYNGy-4C
GYNGy-6C

3. Number of Credit Hours (Total) / Number of Units (Total)

Fourth year 1st semester 2hes/week credit(2)
2nd semester 1hr/week credit (1)
Fifth year 1st semester 2hrs/week credit (2)
2nd semester 1hr/week credit(1)

Fourth year clinical 60 hrs credit (2)
Sixth year clinical 300hrs credit (10)

4. Course administrator's name (mention all, if more than one name)

Name: Fourth-year Theory Dr sahar hisham
Email: sahoorty@nahrainuniv.edu.iq

Fourth-year clinical Dr seba kassim
dr.srykassim@nahrainuniv.edu.iq

Fifth year Sahar alfartosy
Dr Sahar.h45@nahrainuniv.edu.iq

5. Course Objectives

Course Objectives Fourth-year (Clinical)	• **Demonstrate knowledge of the physiology of the female pelvic anatomy with emphasis on reproductive development and changes in endocrinology across woman's lifespan.** • **Acquire a comprehensive understanding of primary and preventive care for women across the lifespan with appropriate screening tests, exams, and treatments at each stage.**

	• **Develop an evidence-based understanding of the pathophysiology of condi io and common disorders that affect women, tests to diagnose, and the appropriate management options for these conditions.** • **Describe the course of a normal pregnancy and effective healthcare durin pregnancy to ensure the health of the mother and fetus.** • **Discuss the proper management of labor and delivery and the managemen t common medical complications that occur during and after pregnancy.** • **Recognize common obstetric and gynecological surgical procedures in ter s patient selection, pre-operative concerns, and the risks and benefits of eac procedure.** • **Able to Take an effective history and physical examination, develop a differential diagnosis, and develop a management plan for common disorc er and conditions.**
Fourth year (1st semester)	1. Demonstrate knowledge in the basic science including those relevant to the the female reproductive system. 2. Explain the signs and symptoms of pregnancy and maternal physiological changes. 3. Explain the principle of detection and confirmation of early pregnancy problems and common approaches to identified high-risk pregnancies. 4. Describe specific terms used in labor, and the mechanism of labor. 5. Demonstrate the most common complications that may arise during pregnanc and the approach to diagnosis and management.
Fourth year(2nd semester)	1. Explain the most common types of high-risk pregnancies and medical disorders complicating pregnancy. 2. Skills and knowledge will be taught regarding the management, counseling, and follow-up of these patients. 3. The course also involves an introduction to obstetric analgesia and anesthesia, risks, indications, and contraindications. 4. Lectures will be given regarding imaging in obstetrics and gynecology and how to interpret patient radiological records.
Fifth year (1st semester)	1. Explain high-risk pregnancies with obstetric complications and medica disorders. 2. Skills and knowledge will be taught regarding the management, counselling, an follow-up of these patients. 3. Explain the most common gynaecological disorders in different age groups an complications. 4. Apply a plan for diagnosis, treatment, and management of these disorders. 5. Demonstrate appropriate counseling and communication skills to achieve th optimum outcome for the patients.
Fifth year (2nd semester)	1. Demonstrate the normal and abnormal development of the female genital trac and those with amenorrhea and intersex. 2. Explain the signs and symptoms of these conditions. 3. Explain infertility and the most common causes. 4. Explain the most common gynecological oncological disorders. 5. Clarify the methods of diagnosis, treatment, and management of these disorders 6. Communicate treatment options to the patient and address their concerns.

Sixth year	Demonstrate knowledge of the physiology of the female pelvic anatomy with a emphasis on reproductive development and changes in endocrinology across woman's lifespan. 2. Acquire a comprehensive understanding of primary and preventive care fo women across the lifespan with appropriate screening tests, exams, an treatments at each stage. 3. Develop an evidence-based understanding of the pathophysiology c conditions and common disorders that affect women, tests to diagnose, and th appropriate management options for these conditions. 4. Describe the course of a normal pregnancy and effective healthcare durin pregnancy to ensure the health of the mother and fetus. 5. Discuss the proper management of labor and delivery and the management c common medical complications that occur during and after pregnancy. 6. Recognize common obstetric and gynecological surgical procedures in term of patient selection, pre-operative concerns, and the risks and benefits of eac procedure. 7. Learning Problem Solving and Clinical Skills/Patient Care through Taking a effective history and physical, developing a differential diagnosis, an developing a management plan for common disorders and conditions. 8. Evaluate surgical patients pre-operatively and post-operatively in terms c common complications and explain proper management of these complications 9. Discuss how to provide non-directive counseling to patients regardin pregnancy options and various methods of contraception with their benefits an risks. 10. Assess the health of the mother and fetus health during pregnancy and labo and demonstrate the proper technique for delivering the baby. 11. Apply Lifelong Learning/Practice-Based Learning and Improvement b using evidence-based resources to better understand the condition and treatmer of patients. 12. Improve performance based on instructional feedback from the faculty residents, and healthcare.

6. Teaching and Learning Strategies

Strategy	
Fourth (1st semester)	The course is given as a twice-weekly lecture for 1 hour each. The lectures are interactive an composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fourth (2ndt semester)	The course is given as once weekly lecture for 1 hour each. The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fifth (1st semester)	The course is given twice weekly for two groups in this grade (4 lectures weekly), lecture for 1 hour each (total 4 hr. weekly). The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.

Fifth 2nd semester)	The course is given once weekly for two groups in this grade (2 lectures weekly), lecture for 1 hour each (a total of 2 hr. weekly). The lectures are interactive and composed of case-based learning with pre- and post-questions and encourage the student into self-directed learning.
Fourth (Clinical)	1. The course is given in eight weeks in the teaching hospital, obstetrics and gynecology floor for 2 hours each day for four days per week. 2. We have four groups per year, each group with about 40 students, each group subdivided into 3 small groups each one with 12-13 students. 3. Case-based learning: history taking and performing proper examinations with management protocols. 4. Interpret the findings from history and examination to reach a professional diagnosis. 5. Bedside teaching skills and physical examination. 6. Demonstrate clinical signs of various obstetrical and gynecological conditions. 7. Demonstrations of different tools used in obstetrical and gynecological departments.
Sixth year(clinical)	. The course is given in ten weeks in the teaching hospital, obstetrics, and gynecology floor for 6 hours each day for five days per week. 2. We have four groups per year, each group about 32 students, each group subdivided into 2 small groups each one 15-16 students. 3. Case-based learning: history taking and performing proper examinations with management protocols. 4. Interpret the findings from history and examination to reach a professional diagnosis. 5. Bedside teaching skills and physical examination 6. Demonstrate clinical signs of various obstetrical and gynecological conditions. 7. Demonstrations of different tools used in obstetrical and gynecological departments.

7. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

15	26		4th 1st-semester theory	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam(mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
15	14		4th 2nd semester theory	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam(mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
15	27		5th 1st-semester theory	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam(mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
15	15		5th 2nd-semester theory	theoretical lectures for undergraduates using PowerPoint presentations and medical videos	Theory written exam(mid-semester and final exam.) Summative and formative quizzes Real-time interactive questions
10	300		Sixth clinical course	Case-based learning history intake and performing physical examinations. Bedside teaching	Theory written exam. Clinical examination as long and OSCE cases

				Demonstration of clinical signs of various obstetrical and gynecological conditions Demonstrate different tools used in the obstetrical and gynecological department	Slide examination. Formative and summative assessment
8	64		4th-year clinical course	Case-based learning history intake and performing physical examinations. Bedside teaching Demonstration of clinical signs of various obstetrical and gynecological conditions Demonstrate different tools used in the obstetrical and gynecological department	Theory written exam. Clinical examination as long and OSCE cases Slide examination. Formative and summative assessment

8. Course Evaluation

Fourth (1st semester) The minimum requirement for a student to pass is to achieve at least 50% of th total 100 marks assigned for the course.
The marks are distributed as follows:
Daily quizzes and Homework (5%)
Midterm Exam (25%) as single best answer questions and essay questions
Final Exam (70%) as – Single Best Answer 50 items
-EMQ questions
- Modified – Essay Questions (4 cases)

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examinatio similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fourth (2nd semester) The minimum requirement for a student to pass is to achieve at least 50% of th total 100 marks assigned for the course.
The marks are distributed as follows:
Daily quizzes and HomeWorks (5%)
Midterm Exam (25%) as single best answer questions and essay questions.
Final Exam (70%) as – Single Best Answer 60 items
- Modified – Essay Questions (4 cases)
- EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examinatio similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fifth (1st semester) The minimum requirement of a student to pass is to achieve at least 50% of th total 100 marks assigned for the course.

The marks are distributed as follows:

Daily quizzes and Homework (5%)

Midterm Exam (25%) as single best answer questions and essay questions

Final Exam (70%) as – Single Best Answer 60 items

- Modified – Essay Questions (4 cases)
- EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examinatio similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fifth (2nd semester) Daily quizzes and Homework (5%)

Midterm Exam (25%) as single best answer questions and essay questions.

Final Exam (70%) as – Single Best Answer 60 items

- Modified – Essay Questions (4 cases)
- EMQ questions.

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examinatio similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Fourth (Clinical)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigne for the course.

The marks are distributed as follows:

Mid-course examination (history taking only) (20%)

Theory examination (6%) as single best answer questions.

Logbook (2.5%).

Student participation in daily activity (1.5%)

Final Exam. Include long case history and examination (70%)

as

History taking and presentation 40 %

Examination performance 40 %

Others (information and attitudes 20%

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examinatio similar to the final one. Failing in the second trial entails the student to repeat the academic year.

Sixth (Clinical)

The minimum requirement for a student to pass is to achieve at least 50% of the total 100 marks assigne for the course. The marks are distributed as follows:

A. Course examination (20 marks) divided as:

1. Theory examination (6%) as single best answer questions, essay questions, and case scenario
2. Long case examinations (5%)
3. Slides examinations (4%)
4. Logbook (1.5%).

5. Seminar presentation (1.5%)
6. Attendance throughout the whole course and participation in clinical activities with quizzes (2%
7. Students who are required to complete research will have their course average calculated fron
16 marks and the research mark will contribute the remaining 4 marks.

B. Final examination at the end of the year (80 marks) divided as:

1. Written: single choice questions +EMQ and assay questions covering almost all aspects o obstetrics and gynecology (30%)
2. Long case examination assessment medical student skill for eliciting history and performin clinical examination (20%)
3. Oral examination (20%)
4. Clinical slides examination of common condition and tools (10%) Students who fail to attain th 50% cut-off mark are required to re-sit for a second trial examination like the final one. Failing i the second trial entails the student to repeat the academic year.

9. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Textbooks: Ten Teachers in obstetric and Gynecology and Dewhurst textbook of obstetrics and gynecology, RCOG &ACOG guidelines
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Pediatrics

Program Description/ Paediatrics Department

Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
2023/2024 4th level	NM04-PEDPed-41 NM04-PEDPed-41	Pediatrics	2hr/week 1hr/week	
2023/2024 5th level	NM05-PEDPed-51 NM05-PEDPed-52	Pediatrics	1hr/week 1hr/week	
2023/2024 4th level	NM04-PEDPed-4C	Pediatrics		2 hrs/daily 8hrs/weekly 7weeks
2023/2024 6th level	NM06-PEDPed-6C	Pediatrics		6hrs/daily 30hrs/weekly 10 weeks

human anatomy

Course Description Form

1. Course Name: Human Anatomy- Neuroanatomy, Head & Neck Anatomy

2. Course Code: ANT-Ant 22

3. Semester / Year:2nd /2nd

4. Description Preparation Date:

5. Available Attendance Forms: Paper documents, online platform

6. Number of Credit Hours (Total) / Number of Units (Total) 6

7. Course administrator's name (mention all, if more than one name)

Name: Prof. May Fadhil Majid
Email: mayalhabib@nahrainuniv.edu.iq
Professor Dr. Thaer Mahmood Farhan
aljomaili2005@nahrainuniv.edu.iq

8. Course Objectives

Intended - Learning objectives- ILO:

Neuroanatomy: The course is designed to enable the student to

1. Identify the parts and components of CNS on dissections and prosections
2. Realize the basic Knowledge on CNS organization and topography
3. Identify major cortical and subcortical features of the brain and discuss their functional significance, including their involvement in select pathways
4. Highlight the clinical significance of neuroanatomical structure
5. Establish working knowledge of cross sectional anatomy of CNS and relevant applications.
6. Pay attention to orient the medical students for functional neuroanatomy and understand the principles for clinical correlate of neurologic disorders.
7. 7. Apply problem-solving and critical thinking techniques to apply anatomical theory to common clinical scenarios (e.g., lesion localization and associated deficits)
8. Demonstrate professional respect and responsible care of human specimens

Head and neck:

1. Describe the topography of the head and neck
2. Teach the students different anatomical structures and organs with their important relations in head and neck
3. Provide surface markings of anatomical structures on the body wall.

4. Emphasize the clinical significance of anatomical structures and relations facilitating the understanding of a disease process or surgical procedure on anatomical grounds
5. Provide the anatomy essential to understand clinical procedures in the examination of head and neck structures
6. Direct the anatomical knowledge towards the appearance of structures when they are imaged in radiographs
7. Make easier description of the neurovascular anatomy by cadaveric as well as angiographic and imaging methods.
8. Medical students' satisfaction with the course contents and their future career.

9. Teaching and Learning Strategies

Strategy	aljomaili2005@nahrainuniv.edu.iq

10. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	9	Teach the anatomy of CNS, learn the clin correlation v anatomical knowledg	1.breifing and orientation for medical students about the neuroanatomy & head and neck course 2. Gross anatomy of brain & medullary centers. 3. Functional localization cerebral cortex I	Lectures+ practical sessio	Exam: formative an summative exams, midterm practical a theoretical exam , fi exam
2nd	9	Teach the anatomy of CNS, learn the clin correlation v anatomical knowledg	4. Functional localization of cerebral cortex II 5. Brain stem I. 6. Brain stem II & retic formation.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
3rd	9	Teach the anatomy of CNS, learn the clin correlation v anatomical knowledg	7. Meninges. & Ventricles of the brain with clinical correlate 8. Blood supply of the brain. with angiography 9. Limbic system with clinical correlate	Lectures+ practical sessions	Exam: formative summative exa midterm practical theoretical exam , f exam
4th	9	Teach the anatomy of CNS, learn the clin correlation v anatomical knowledg	10. Cerebellum. 11. Diencephalon. 12. Basal ganglia.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
5th	9	Teach the anatomy of CNS, learn the clin correlation v anatomical knowledg	13. Spinal cord I: gross and sectional anatomy 14. Spinal cord II. Ascending and descending	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f

			pathways 15. The extracranial course of cranial nerves.		exam
6th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	16. Sectional & imaging anatomy of the CNS 17. Surface anatomy, planes and fascia of the neck. 18. Posterior triangle of neck.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
7th			Midterm exam		
8th			Midterm exam		
9th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	19. Anterior triangle of neck. 20. Thyroid and parathyroid glands. Viscera of neck. 21. Nerves & Blood vessels of the neck.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
10th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	22. Prevertebral & suboccipital regions. 23. Root of the neck. 24. Clinical anatomy of the pharynx.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
11th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	25. Clinical anatomy of the larynx. 26. The scalp &muscles of face. 27. Nerves & vessels of face.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
12th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	28. Parotid region. 29. Infratemporal fossa 30. Ptyregopalatine fossa.	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
13th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	31. Temporomandibular joint & palate. With clinical correlates 32. Mouth &submandibular region. 33. clinical and applied anatomy of the ear	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
14th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	34. The nose & paranasal sinuses. 35. The orbit. & the eyeball 36. Applied anatomy of lymphatic drainage of head & neck	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
15th	9	Teach the anatomy of head & neck, learn clinical correlation v anatomical knowledge	37. Sectional & imaging anatomy of the head & neck 38. Case scenario & problem solving for head and neck anatomy	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam

11. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

12. Learning and Teaching Resources

- Moore KL & Dalley AF (2022): Clinically Oriented Anatomy. 9th Ed. Lippincott Williams & Wilkins. Philadelphia
- Snell R (2018): Clinical Neuroanatomy. 8th Ed. Lippincott Williams & Wilkins. Philadelphia

Main references (sources)

- Moffatt DB (1993): Lecture notes on anatomy. 2nd ed., Blackwell publications. Oxford
- Snell RS 10th edition (2018): Clinical anatomy for medical students. 6th Ed. Williams & Wilkins. Philadelphia
- Wilkinson: neuroanatomy for medical students
- Barr & Kiernan: the human nervous system

- MRI of the brain and spine (CD)
- McMinn's head and neck anatomy (CD)
- McMinn's color atlas of human anatomy (CD)
- McMinn & Abrahams's clinical atlas of human anatomy (CD)
- Weir J & Abrahams P: Imaging atlas of the human body (CD)
- Netter's Interactive Anatomy (CD)
- Grant's atlas of anatomy (CD)

Course Description Form

13. Course Name: Medical Biology- Cytogenetics

14. Course Code: ANTBio12

15. Semester / Year:1st /2nd

16. Description Preparation Date:

17. Available Attendance Forms: Paper documents, online platform

18. Number of Credit Hours (Total) / Number of Units (Total) 3.5

19. Course administrator's name (mention all, if more than one name)

Name: Prof. May Fadhil Majid
Email: mayalhabib@nahrainuniv.edu.iq
Professor Dr. Thaer Mahmood Farhan
aljomaili2005@nahrainuniv.edu.iq
Assist. Professor. Shatha Mahmoud Hasan
Shathamahmoud72@nahrainuniv.edu.iq

20. Course Objectives

Intended - Learning objectives- ILO:
The course is designed to enable the student to:
1-understanding the basis of genetics and medical inheritance.
2. study the basic information about the human genome and techniques used in genetic studies of chromosomes
3. understanding how the gene expression
4. study the Genetic diseases and cancer
5-Classification and biological aspects of lower organisms the relation between free-living forms and parasitic forms, and the effects of the environment complement each other in the life of man and other organisms.

21. Teaching and Learning Strategies

Strategy	Shathamahmoud72@nahrainuniv.edu.iq

22. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	5	*Introduction cytogenetics *Patterns Chromosome	Cytogenetics" tradition refers to the study chromosomes with the use microscopy Students need to understand	Lectures+ practical sessions	Exam: formative and summative exams, midterm practica theoretical exam , final e

		Inheritance	basic laws of inheritance appreciate how conditions passed on in a family. An		
2nd	5	Chromosomes structure 1& 2	Study chromosomes are thread-like structures in which DNA is tightly packaged within the nucleus. DNA is coiled around proteins called histones, which provide the structural support	Lectures+ practical sessions	Exam: formative and summative exams, midte practical and theoretical , final exam
3rd	5	*Chromosome Inherita abnormalities *Chromosome Inherita abnormalities	Learn the terms used to describe the abnormalities in chromosomal numbers: polyploidy, aneuploidy: trisomy and monosomy, and mosaicism and their causing mechanisms.• Learn the terms that describe the abnormalities in chromosomal structure: deletions, duplications, translocations, and inversions	Lectures+ practical sessions	Exam: formative summative exams, midterm practica theoretical exam , final e
4th	5	*Inheritance of Gen Disorders *Sex-Linked Inheritance	A trait or disorder that is determined by a single gene in an autosome is said to show autosomal inheritance Study Sex-linked inheritance refers to the pattern of inheritance shown by genes that are located on either of the sex chromosomes	Lectures+ practical sessions	Exam: formative summative exams, mi practical and theoretical , final exam
5th	5	*Cell cycle regulationI *Cell cycle regulationII	Describe the internal and external factors that influence the cell cycle control system Explain how the abnormal cell division of cancerous cells escapes normal cell cycle controls	Lectures+ practical sessions	Exam: formative summative exams, midterm practica theoretical exam , final e
6th	5	*DNA Biology(DNAstructure *RNA Structure& Funct	describe the structure of DNA as a polymer composed of many nucleotides joined by phosphodiester bonds forming a sugar-phosphate backbone RNA molecules perform a variety of roles in the cell but are mainly involved in the process of protein	Lectures+ practical sessions	Exam: formative summative exams, midterm practica theoretical exam , final e

			synthesis (translation) and its regulation, and describe the similarities and differences between RNA and DNA		
7th			Midterm exam		
8th			Midterm exam		
9th	5	*DNA Replication *Gene Expression I	Understand the basic mechanism of DNA replication, and know the various enzymes that play a role in this process. This lesson describes the steps involved in a cell as DNA sequence information is read to make RNA and RNA is read to make proteins. A gene will only control a trait in an organism when the gene is expressed	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam
10th	5	**Gene Expression II	Describe the basic mechanics of translation, including the roles of ribosomes, tRNAs, and amino acids.	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam
11th	5	*Mitochondrial DNA *Mitochondrial diseases	Mitochondria are unique organelles carrying their genetic material, independent from that in the nucleus. Describe the etiology, pathogenesis, and clinical features of one type of mitochondrial disease	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam
12th	5	*Cancer (Overview cancer) *Causes and Prevention Cancer	Describe in general terms how cancers develop and be able to describe the hallmarks of cancer. Describe the important genetic/familial syndromes related to cancer development, identify their mode of inheritance and impact on cancer development	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam
13th	5	*Diagnosis of Cancer *Stem cells I	By graduation, medical students should know common presentations of cancer and how to make a diagnosis of cancer In this lesson, students will be able to state where stem cells are	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam

			found, describe the function of stem cells in the human		
14th	5	*Stem cells II Protozoa I *Platyhelminthes I	Study the potential benefits and risks of using stem cells in medicine Study protozoa to provide students with knowledge concerning biological, epidemiological and ecological aspects of parasites causing diseases in humans	Lectures+ practical sessions	Exam: formative summative exams, mi t practical and theoretical e , final exam
15th	5	Overview 1&11			

23. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

24. Learning and Teaching Resources

- Molecular biology of the cell, Bruce Albert.2002
- 2-Elements of Medical genetics, Alan E, H. Emery, sixth edition, London 1983
- 3-EMERY'S Elements of Medical Genetics. Peter D. Turnpenny, Sian Ellard,14th EDITION

Course Description Form

25. Course Name: Human Anatomy- Anatomy of Upper & Lower Limbs
26. Course Code: ANT-Ant 12

27. Semester / Year: 2nd / 1st

28. Description Preparation Date: 27/2/2024

29. Available Attendance Forms: Paper documents, online platform

30. Number of Credit Hours (Total) / Number of Units (Total) 6

31. Course administrator's name (mention all, if more than one name)

Name:
Prof. Dr. Haider Abdulrassoul Jaffar
Lecturer Dr. Hussein Abbas Jarullah

32. Course Objectives

Intended - Learning objectives- ILO:
The course is designed to enable the student to:
1**.** Describe the topography of the upper and lower limbs
2. Identify the surface markings of limb structures on the body wall emphasizing peripheral pulses and palpable bony landmarks
3. Direct the anatomical knowledge towards the appearance of structures when they are imaged in radiographs.
4. Emphasize the clinical significance of anatomical structures and relations facilitating the understanding of a disease process or surgical procedure on anatomical grounds

33. Teaching and Learning Strategies

Strategy

Teaching and learning of human upper & lower limbs anatomy includes the following methods:

1. Theory:

- Give theory background interactive lectures attending physically in the lectures-halls three lectures per week on two repetition,
- Do some formative quizzes at the end of the lectures for feedback knowledge
- Using Al-Nahrain medical college platform is one of the methods used to communicate with student at home and use this classroom to give the headlines for the next coming lectures, inform them about upcoming quizzes in addition to performing home formative quizzes and assignments
- Physically attending Formative assessment and exam

2. Practical sessions and training:

	• Demonstration of the real cadaveric dissection • Plastic models demonstration • Live-camera anatomy demonstration using [modified closed- circuit audiovisual learning system] • Virtual anatomy lab. Teaching [virtual anatomy tables] these are synchronized with master table in the lab. That controls what are being displaced on the virtual tables and LCD screens in the anatomy lab. • Students are subdivided into 4 groups [A, B, C, D] in the lab., each group is composed of around (80-90) students who are allowed to use all the tools and facilities in the anatomy lab., as well as the virtual anatomy lab through-out 3 hrs. on two occasions per week [practical anatomy lab. Sessions] • Clinically oriented practical anatomy teaching for students to be able to correlate the basic anatomical knowledge with the clinically based scenarios provided in practical exams.

34. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1st	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	1. Osteology of the upper li 2. Superficial structures of upper limb 3. Anterior and post. thora appendicular muscle	Lectures+ practical sessio	Exam: formative and summative exams, midterm practical an theoretical exam , fi exam
2nd	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	4. Joints of the pectoral region and scapulohumeral muscles 5. The shoulder joint, functional and clinical anatomy 6. The axilla: boundaries and axillary vessels and lymph nodes. Clinical correlates	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
3rd	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	7. The brachial plexus 8. The arm: anterior & post. Compartment. Clinical anatomy 9. The cubital fossa and elbow joint. Applied anatomy of cubital	Lectures+ practical sessions	Exam: formative summative exa midterm practical theoretical exam , f exam

			fossa		
4th	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	10. Flexor compartment of the forearm 11. Extensor compartment of the forearm 12. Nerves and vessels of the forearm. The radio-ulnar joints	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
5th	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	13. Clinical anatomy of fractures of radius & ulna 14. The wrist region and the Hand (muscles) 15. The Hand (blood vessels and nerves)	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
6th	9	Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	16. Applied anatomy of wrist and hand 17. Nerve injuries of upper limbs 18. Imaging and cross sectional anatomy of upper limb	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
7th		Teach the anatomy of the U limb, learn the clinical correl with anatomical knowledge	MID-TERM EXAMINATION		
8th		Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	1. Osteology of the lower limb 2. Superficial thigh structures & Applied anatomy 3. The femoral triangle, Femoral sheath, the anterior and adductor compartment. Adductor canal		
9th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	4. Gluteal region; anatomy and its clinical correlate 5. The hip joint; anatomy and main clinical conditions related 6. Posterior	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam

			compartment of the thigh		
10th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	7. Clinical anatomy of fractures of femur 8. Popliteal fossa; anatomy and applied anatomy 9. The knee joint; anatomy and main clinical conditions related	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
11th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	10. Posterior crural compartment 11. The sole of the foot 12. The ankle joint and joints of the foot	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
12th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	13. Arches of the foot; anatomy and clinical significance 14. Posture and gait 15. Venous drainage of the lower limb & varicose veins	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
13th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	16. Nerve injuries in the lower limb 17. Imaging and cross sectional anatomy of the lower limb 18. Applied anatomy of lower limb (cutaneous nerves 19. and peripheral pulses)	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
14th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	How to analyse clinical Scenarios based on anatomical knowledge. Examples and discussion	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam
15th	9	Teach the anatomy of the L limb, learn the clinical correl with anatomical knowledge	Overview	Lectures+ practical sessio	Exam: formative summative exa midterm practical theoretical exam , f exam

19. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

20. Learning and Teaching Resources

- Moore KL & Dalley AF (2022): Clinically Oriented Anatomy. 9th Ed. Lippincott Williams & Wilkins. Philadelphia
- Snell R (2018): Clinical Neuroanatomy. 8th Ed. Lippincott Williams & Wilkins. Philadelphia

Main references (sources)

- Moffatt DB (1993): Lecture notes on anatomy. 2nd ed., Blackwell publications. Oxford
- Snell RS 10th edition (2018): Clinical anatomy for medical students. 6th Ed. Williams & Wilkins. Philadelphia
- Wilkinson: neuroanatomy for medical students
- Barr & Kiernan: the human nervous system

- MRI of the brain and spine (CD)
- McMinn's head and neck anatomy (CD)
- McMinn's color atlas of human anatomy (CD)
- McMinn & Abrahams's clinical atlas of human anatomy (CD)
- Weir J & Abrahams P: Imaging atlas of the human body (CD)
- Netter's Interactive Anatomy (CD)
- Grant's atlas of anatomy (CD)

Course Description Form

35. Course Name: Embryology- systems-Based Embryolog

36. Course Code: ANTEmb-21

37. Semester / Year: 2nd semester/2nd year

38. Description Preparation Date:

39. Available Attendance Forms: Attendance only

40. Number of Credit Hours (Total) / Number of Units (Total) 2

41. Course administrator's name (mention all, if more than one name)

Name: Name: Prof. May Fadhil Majid
Email: mayalhabib@nahrainuniv.edu.iq
Professor Dr. Thaer Mahmood Farhan
Email: aljomaili2005@nahrainuniv.edu.iq

42. Course Objectives

Course Objectives

- Study the morphogenetic changes related to organs formation.
- Understanding the embryological aspects of congenital malformations
- Understanding the clinical varieties of the most Common applied embryological presentations related to systemic embryology

43. Teaching and Learning Strategies

Strategy	

44. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1st	3	Teach morphogenetic changes related musculoskeletal organs formation	Embryology of musculoskeletal system (Somitogenesis & Myogenesis).	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
2nd	3	Teach morphogenetic changes related skeletal org formation learn clinical correla with embryolog knowledge	Development of t skeletal system: (the skull, limbs, vertebrae, rib and sternum)	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam

3rd	3	Teach morphogenetic changes related oud system org formation, learn clinical correla with embryolog knowledge	Development of t central nervous system	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
4th	3	Teach morphogenetic changes related head & n organs format learn the clin correlation v embryological knowledge	Development of t head and neck	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
5th	3	Teach morphogenetic changes related eye & ear org formation, learn clinical correla with embryolog knowledge	Formation of the eye and ear.	Lectures+ practical sessi	Exam: formative and summative exams, midterm practical and theoretical exam , final exam
6th	3	Teach morphogenetic changes related cardiac sys organs format learn the clin correlation v embryological knowledge	Morphogenesis o the cardiac system I	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
7th	3		Midterm exam		
8th	3		Midterm exam		
9th	3	Teach morphogenetic changes related cardiac sys organs format learn the clin correlation v embryological knowledge	Morphogenesis o the cardiac system II	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
10th	3	Teach morphogenetic changes related vascular org formation, learn clinical correla with embryolog knowledge	Development of t vascular system	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
11th	3	Teach morphogenetic	Embryogenesis o	Lectures+ practical sessi	Exam: formative

		changes related gut tube org formation, learn clinical correla with embryolog knowledge	gut tube diverticulum.		and summative exams, midterm practical and theoretical exam , final exam
12th	3	Teach morphogenetic changes related renal org formation, learn clinical correla with embryolog knowledge	Embryogenesis o the Urogenital system: renal system	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
13th		Teach morphogenetic changes related internal ge organs format learn the clin correlation v embryological knowledge	Developmental o the internal genital organs	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
14th		Teach the morphogenetic changes related external genital organs formatio learn the clinica correlation with embryological knowledge	Development of t external genital organs	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam
15th			Over view of systemic embryology.	Lectures+ practical sessi	Exam: formative summative exa midterm practical theoretical exam , f exam.

45. Course Evaluation

Theory	15
Practical	10
Assessment	5 quizzes
Total Average	30
Final Theory	50
Final Practical	20
Total Grad	100%

46. Learning and Teaching Resources
- Sadler TW (2014): Langman's medical embryology. 13thEd.William& Wilkins. Philadelphia. - Moore KL and Persaud TVN (1998): Before we are born, Essentials of embryology and birth defects. 5th Ed. Saunders' comp. Philadelphia. - Moore KL and Persaud TVN (1998): The developing human, clinical oriented embryology. 6th Ed. Saunders' comp. Philadelphia.
Main references (sources)
Many soft wares and websites

Program Description/ Anatomy Department

Program description				
Year/ level	Course code	Course title	Course credit	
			theoretical	praactical
2023/2024 1st	NM01-ANTBio-11	Medical Biology	3	3
2023/2024 1st	NM01-ANTAnt-12	Human Anatomy	3	6
2023/2024 1st	NM01-ANTBio-12	Medical Biology	2	3
2023/2024 2ed	NM02-ANTAnt-21	Human Anatomy	3	6
2023/2024 2ed	NM02-ANTHis-21	Histology	2	2
2023/2024 2ed	NM02-ANTEmb-21	Emberiology	1	2
2023/2024 2ed	NM02-ANTAnt-22	Human Anatomy	3	6
2023/2024 2ed	NM02-ANTHis-22	Histology	2	2
2023/2024 2ed	NM02-ANTEmb-22	Emberiology	1	2
2023/2024 2ed	NM01-ANTBio-11	Medical Biology	3	3
2023/2024 2ed	NM01-ANTAnt-12	Human anatomy	3	6

Program Skill Outline/ Anatomy Department

Program Skills Outline																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics				
				A1	A2	A3	A 4	B1	B2	B 3	B4	C1	C2	C3		C4
2nd	NM02-ANTEmb-21	Embryology	Basic	X	X	X	X			X	X	X	X		X	
2nd	NM02-ANTAnt-22	Human Anatomy	basic	X	X	X	X			X	X	X	X		X	
1st	NM01-ANTBio-12	Medical Biology	basic	x	x	x	X			X	X	X	X		X	
1st	NM01-ANTAnt-12	Human Anatomy	basic	X	X	X		X	X							

Physiology
&
Medical physics

Program Description/Physiology Department

Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
2023/2024 1st	**NM01-PHYPhy-11**	**Physiology/ 1st course**	**1**	
2023/2024 1st	**NM01-PHYPhy-12**	**Physiology/ 2ed course**	**1**	
2023/2024 2ed	**NM02-PHYPhy-21**	**Physiology/ 1st course**	**4**	**3**
2023/2024 2ed	**NM02-PHYPhy-22**	**Physiology/ 2ed course**	**4**	**3**

Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form For The Academic

University: Al-Nahrain University
College : College of Medicine
Department : Department of Physiology
Date Of Form Completion : 12/9/2021

Dean's Name

Date : / /

Signature

Dean's Assistant For Scientific Affairs

Date : / /
Signature

Head of Department
Date : / /
Signature

Quality Assurance And University Performance Manager
Date : / /
Signature

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	Al-Nahrain University/ College of Medicine
2. University Department/Centre	Department of Physiology
3. Programme Title	Physiology
4. Title of Final Award	M.B.ch.B.
5. Modes of Attendance offered	Courses
6. Accreditation	Ministry of Higher Education &Scientific Research
7. Other external influences	practical physics
8. Date of production/revision of this specification	22/6/2021
9. Aims of the Programme:	
Division of Medical Physics aims to try to link the laws of physics and its applications in various fields of medical diagnostic and therapeutic, including: -	
1- to explain the laws of physics and its application in the medical field	
2- deepen scientific logic for students	
3- in the advancement of the reality of scientific research	

4- application of basic scientific study acquired by the student to conduct scientific research and medical studies.

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A1. Introduce students to the physics of the human body
A2. form a solid foundation in understanding the principles and techniques of diagnostic and therapeutic devices with physical principles.
A3. Develop mental abilities by different academic learning tools
A4. Learn the methods of scientific discussion
A5. Acquisition of laboratory skills

B. Subject-specific skills

B1. How to use measuring instruments and physical materials in laboratories
B2. How to use radioactive materials and laser devices

Teaching and Learning Methods

Lectures, computers, plasma screens, scientific instruments, clinical tours, small teaching groups, visual and auditory aids instruments and discussions.

-The theoretical side includes theoretical lectures on the applications of physical laws in the medical field.
- The practical side includes practical experiences related to the medical specialty

Assessment methods

1- Written exams
2- Continuous assessment
3- Small teaching groups
4- Practical exams

C. **Thinking Skills**
C1. Moral and professional discipline.
C2. Good behavior of the students among them.
C3. Development the help spirit
C4. Removal of the class differences

Teaching and Learning Methods

Small teaching groups, discussions and seminars

Assessment methods

1- Scheduled assessment
2- Students follow up

D. **General and Transferable Skills (other skills relevant to employability and personal development)**

D1. The student should cooperate with his colleges and teachers in atmosphere friendliness and understanding
D2. One team work
D3. Reaction with them in the scientific journeys
D4.

Teaching and Learning Methods

Small teaching groups, discussions and seminars

Assessment Methods

3- Scheduled assessment
4- Students follow up

11. Programme Structure				12. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
1st stage	**PHSPhs-1**	**Medical physics**	3	Bachelor Degree Requires (x) credits
1st stage	**PHSPhs-2**	**Medical physics**	3	

13. Personal Development Planning
Learn ideas, methods, tools and techniques that would enable the students to use them directly to fitful accomplishment of the work in the best way.
14. Admission criteria .
Central admission
15. Key sources of information about the programme
1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage

Curriculum Skills Map																	
please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																	
				Programme Learning Outcomes													
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
1st	**PHSPhs-1**	**Medical physics**		×	×	×	×	×	×	×		×	×	×	×	×	×	×	
	PHSPhs-2	**Medical physics**		×	×	×	×	×	×	×		×	×	×	×	×	×	×	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Collage of medicine
2. University Department/Centre	Al-Nahrain University
3. Course title/code	Medical Physics
4. Programme(s) to which it contributes	M.B.Ch.B.
5. Modes of Attendance offered	Obligatory
6. Semester/Year	1st semester 2020 – 2021
7. Number of hours tuition (total)	30 hours lectures
8. Date of production/revision of this specification	12/9/2021
9. Aims of the Course	
Medical Physics aims to try to link the laws of physics and its applications in various fields of medical diagnostic and therapeutic, including - : 1- to explain the laws of physics and its application in the medical field	
2- deepen scientific logic for students	
3- in the advancement of the reality of scientific research	
4- application of basic scientific study acquired by the student to conduct scientific research and medical studies.	

10· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Knowledge and Understanding A1. Introduce students to the physics of the human body A2. form a solid foundation in understanding the principles and techniques of diagnostic and therapeutic devices with physical principles. A3. Develop mental abilities by different academic learning tools
B. Subject-specific skills B1. How to use measuring instruments and physical materials in laboratories B2. How to use radioactive materials and laser devices
Teaching and Learning Methods
Lectures, quizzes
Assessment methods
5- Scheduled assessment 6- Students follow up
C. Thinking Skills C1. Moral and professional discipline. C2. Good behavior of the students among them. C3. Development the help spirit C4. Removal of the class differences
Teaching and Learning Methods
Lectures, quizzes
Assessment methods
Scheduled assessment Students follow up

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. The student should cooperate with his colleges and teachers in atmosphere friendliness and understanding

D2. One team work

D3. Reaction with them in the scientific journeys

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1st	**2**	Medical physics	**Terminology, Modeling ,measurement ,how to make a full diagnose.**	Theoretical lecture	**-Short daily, mid-term & final exams.**
2nd	**2**	Medical physics	**Forces on and in the human body.**	Theoretical lecture	**Short daily, mid-term & final exams**
3rd	**2**	Medical physics	**Centrifuge, Sedimentation velocity.**	Theoretical lecture	**Short daily, mid-term & final exams**
4th	**2**	Medical physics	**Physics of the skeleton.**	Theoretical lecture	**Short daily, mid-term & final exams**
5th	**2**	Medical physics	**Elastic properties of biological materials**.	Theoretical lecture	**Short daily, mid-term & final exams**
6th	**2**	Medical physics	**Heat and cold in medicine**.	Theoretical lecture	**Short daily, mid-term & final exams**
7th	**2**	Medical physics	**Cold in medicine**.	Theoretical lecture	**Short daily, mid-term & final exams**
8	**2**	Medical physics	**Energy, work, and power of the body**.	Theoretical lecture	**Short daily, mid-term & final exams**
9	**2**	Medical physics	**Pressure**	Theoretical lecture	**Short daily, mid-term & final exams**
10	**2**	Medical physics	**The physics of lung**.	Theoretical lecture	**Short daily, mid-term & final exams**
11	**2**	Medical physics	**The breathing mechanism, airway resistance**.	Theoretical lecture	**Short daily, mid-term & final exams**
12	**2**	Medical physics	**Compliance, physics of alveoli**.	Theoretical lecture	**Short daily, mid-term & final exams**
13	**2**	Medical physics	**Major components of the cardiovascular system(CVS)**.	Theoretical lecture	**Short daily, mid-term & final exams**
14	**2**	Medical physics	**Laplace law,Bernoulli's principle ,Viscosity &Poiseuille's law.**	Theoretical lecture	**Short daily, mid-term & final exams**
15			**final exams**		

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Special requirements (include for example workshops, periodicals, IT software, websites)	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Community-based facilities (include for example, guest Lectures , internship , field studies)	None

13. Admissions	
Pre-requisites	
Minimum number of students	As determined by the University
Maximum number of students	As determined by the University

Pathology and forensic medicine

Program Description/ Pathology Department

Program Description				
Year/Level	Course Code	Course Name	Credits	
			Theory	practical
2023/2024 3rd year	NM03-PATP-31	Pathology	4	3
	NM03-PATP-32	Pathology	3	3
2023/2024 4th year	NM04-PATFom-41	Forensic medicine	2	3
	NM04-PATFom-42	Forensic medicine	2	3
2023/2024 5th year	NM05-PATMet-51	Medical ethics	1	

Course Description Form/ pathology 1

1. Course Name:
Pathology
2. Course Code:
(PATpat-31)
3. Semester / Year:
3rd year/1st semester
4. Description Preparation Date:
1/1/2024
5. Available Attendance Forms:
Physical
6. Number of Credit Hours (Total) / Number of Units (Total)
4 theory /3 practical /5.5 credit
7. Course administrator's name (mention all, if more than one name)
Name: assistant prof. Bassam M. Hameed Email:

8. Course Objectives

Course Objectives	**The course is designed to enable the student to:** 1. **Understand pathology as a science and its subspecialties** 2. **understand general principles of pathology** 3. **Be familiar with different diagnostic modalities used in pathology** 4. **Discuss pathology of hematological disease, cardiovascular and respiratory disease** **. Have ability to interpret histopathological findings in general**

9. Teaching and Learning Strategies

Strategy	Lectures/Practical sessions/Seminars/Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Introduction to pathology Diagnostic technique in pathology Cell injury Intracellular accumulations Inflammation Healing and repair Hemodynamic Disturbances Genetic disorders Nomenclature of benign and malignant tumors Pathways of spread of maligna tumors Molecular aspects of carcinogenesis Chemical and microbial carcinogenesis Hypersensitivity reactions Immune deficiency Autoimmune disease Amyloidosis Hematopoiesis Anemia Leukemia Hemostasis Blood transfusion Disease of Cardiovascular System	Lectu and practi sessio	Theo and statio exam

			Disease of Respiratory system		

11. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

- **Mid-term exam 25 marks of written short essay test.**
- **Quizzes 5 marks, 20% of quizzes are formative tests.**
- **Final theory exam 50 marks, as 30% short essay, 70% MCQ**
- **Final practical exam 20 marks of OSPE in slide stations**

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. **Muirs textbook of pathology** 2. **Robbins pathological basis of disease**
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form/ pathology 2

13. Course Name:
Pathology
14. Course Code:
(PATpat-32)
15. Semester / Year:
3rd year/2nd semester
16. Description Preparation Date:
1/1/2024
17.Available Attendance Forms:
Physical
18.Number of Credit Hours (Total) / Number of Units (Total)

3 theory /3 practical /4.5 credit

19. Course administrator's name (mention all, if more than one name)

Name: assistant prof. Bassam M. Hameed

20. Course Objectives

Course Objectives	**The course is designed to enable the student to:** 1. To know etiology, morphology, pathogensis of different systemic disease 2. To relate pathological findings and knowledge to clinical experience

21. Teaching and Learning Strategies

Strategy	Lectures/Practical sessions/Seminars/Reports

22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Gastrointestinal tract Liver, Gallbladder and Pancrea Urinary system Female genital tract and breas Male genital tract Lymphoreticular system Endocrine system Nervous system Musculoskeletal system Skin	Lectur and practi sessio	Theor and statio exam

23. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

- **Mid-term exam 25 marks of written short essay test.**
- **Quizzes 5 marks, 20% of quizzes are formative tests.**
- **Final theory exam 50 marks, as 30% short essay, 70% MCQ**
- **Final practical exam 20 marks of OSPE in slide stations**

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

24. Learning and Teaching Resources

Required textbooks (curricular books, if any)	3. **Muirs textbook of pathology** 4. **Robbins pathological basis of disease**

Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form/forensic medicine 1

1. Course Name:
Forensic Medicine
2. Course Code:
(PATForm-41)
3. Semester / Year:
4th year/1st semester

4. Description Preparation Date:

1/1/2024

5. Available Attendance Forms:

Physical

6. Number of Credit Hours (Total) / Number of Units (Total)

2 theory /3 practical /3.5 credit

7. Course administrator's name (mention all, if more than one name)

Name: ا د معتز عبد المجيد

8. Course Objectives

Course Objectives	**The course is designed to enable the student to:** Able to write various medico-legal reports and death certificates. Be aware of all types of medico-legal cases and how to deal with them during his or her medical practice. Emphasize the importance of this science in helping the legal authorities to prevail justice. To understand the real duties of forensic medicine and forensic pathologists.

9. Teaching and Learning Strategies

Strategy	Lectures/Practical sessions/Seminars/Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Historical review, medico-leg systems, signs and diagnosis death. Physical and chemical changes after death. Late signs of death, Wounds (Bruce and Abrasions). Wounds (Lacerations and Sha wounds). Firearm wounds Transportation injuries. Specific regional injuries. Thermal injuries, Electrocutio and Lightening. Thermal injuries (cont.), Flam and Scald burn. Asphyxia, Smothering, chokin strangulation and hanging	Lectur and practi sessio	Theor and statio exam

			Asphyxia (cont.), Drowning Sudden death, Classification, Causes of sudden death according to body systems Sudden Death (cont.), Death under surgical anesthesia. Forensic Pediatrics, Infanticid Forensic Pediatrics, Child Ab Syndrome, SIDS		

11. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

1. **Quizzes: 5 degree**
2. **Seminar: 5 degree**
3. **Midterm exam: 20 degree Modified Short Essay**
4. **Final exam: 70 degree and is divided into 2 parts:**
   - **Written exam: 70 degree 40% Modified Short Essay and 60% single choice MCQ**

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	**1.** الطب العدلي واداب المهنة الطبية للمرحوم الاستاذ د.ضياء الموسوي **2.** Forensic Medicine by Bernard Knight .
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form/forensic medicine 2

1. Course Name:
Forensic Medicine
2. Course Code:
(PATForm-42)
3. Semester / Year:

4th year/2nd semester
4. Description Preparation Date:
1/1/2024
5. Available Attendance Forms:
Physical
6. Number of Credit Hours (Total) / Number of Units (Total)
2 theory /3 practical /3.5 credit
7. Course administrator's name (mention all, if more than one name)
Name: ا د معتز عبد المجيد
8. Course Objectives

Course Objectives	**The course is designed to enable the student to:** To be able to deal with different types of sexual assaults referred to the outpatient clinic. Understand methods of identifications between individuals and other trace evidences in criminal investigation. How to manage patients referred to hospitals after exposure to various types of poisons.

9. Teaching and Learning Strategies	
Strategy	Lectures/Practical sessions/Seminars/Reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Sexual offences Sexual offences (cont.). Impotence, Sterility and Paternity. Forensic DNA Typing. Identification (Classification a Methods). Age estimation (methods and Purposes). Identifications of Blood Stains and Fibers. Identifications of Seminal and Saliva Stains Forensic Toxicology	Lectur and practi sessio	Theor and statio exam

			(introduction and Classificatio Methods of management of poisoned patients Corrosive Poisons. Volatile compounds and Toxic Gases. Alcohol Drugs, Narcotics and ecstasy. Plant and Mushroom poisons.		

11. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows:

5. **Quizzes: 5 degree**
6. **Seminar: 5 degree**
7. **Midterm exam: 20 degree Modified Short Essay**
8. **Final exam: 70 degree and is divided into 2 parts:**
   - **Written exam: 70 degree 40% Modified Short Essay and 60% single choice MCQ**

Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination similar to the final one. Failing in the second trial entails the student to repeat the academic year.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	**1.** الطب العدلي واداب المهنة الطبية للمرحوم الاستاذ د.ضياء الموسوي **2.** Forensic Medicine by Bernard Knight .
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form/medical ethics

13. Course Name:
Medical Ethics
14. Course Code:
(PATMet-51)
15. Semester / Year:
5th year/1st semester
16. Description Preparation Date:
1/1/2024
17.Available Attendance Forms:
Physical
18.Number of Credit Hours (Total) / Number of Units (Total)
1 theory/1 credit
19. Course administrator's name (mention all, if more than one name)
Name: ا د معتز عبد المجيد
20. Course Objectives

Course Objectives	The course is designed to enable the student to: 1. Prepare them to recognize difficult situations and deal with in a rational and principled manner. 2. Be aware of physician´s interactions with society and their colleagues and for the conduct of medical research. 3. Provide them with ethical principles such as respect of persons, informed consent and confidentiality which are basic to physician-patient relationship

21. Teaching and Learning Strategies	
Strategy	Lectures/Practical sessions/Seminars/Reports

22. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Introduction, historical revie of ethics, Islamic instructio towards ethics. Doctors and humanity, fees, prescription and advertisemer	Lectur and practi sessio	Theor and statio exam

			Medical attitude, physician-patient relationship, physician-physician relationship, specialist-GP relationship, physician and traditional cultu Medical liability, liability towards patient diagnosis and treatment Liability towards continued medical education, mistakes in prescription, Euthanasia. Criminal abortion , sterilizatio Brain death and donation of organs Physicians and profession election, Medical committee, Experimental trials on human body. Physician and Laws, Iraqi medical association, Registration of Birth and death, Transportati of bodies, Testimony in courts Iraqi Punishment law. Ethics in medical research. Physician duties and communication skills toward h patient. Surgical bases in treatment. Communication skills in pediatrics. The values of medical ethics and the convention of hones profession. Medical and surgical mistakes Confidentiality, Hippocratic o and medical oath.		

23. Course Evaluation

The minimum requirement of a student to pass is to achieve at least 50% of the total 100 marks assigned for the course. The marks are distributed as follows: Midterm exam: 30 marks as short essay questions.
Final exam: 70 marks as essay questions and best answer MCQ.
Students who fail to attain the 50% cut-off mark are required to re-sit for a second trial examination

similar to the final one. Failing in the second trial entails the student to repeat the academic year.

24. Learning and Teaching Resources

Required textbooks (curricular books, if any)	A. داب المهنة الطبية للاستاذ الدكتور طريف سرحان الغريري B. السلوك الطبي وأداب المهنة الطبية للاستاذ الدكتور عبد الوهاب الجلبي C. المدخل الى الاخلاق الطبية للاستاذ الدكتور ثامر أحمد حمدان
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A 1	A2	A 3	A 4	B 1	B 2	B 3	B4	C1	C2	C3	C4
3rd year	NM03-PATP-31	Pathology	Basic	X		X							X		X
	NM03-PATP-32	Pathology	Basic	X		X							X		X
4th year	PATFom-41	Forensic medicine	Basic	X		X					X	X	X	X	X
	PATFom-42	Forensic medicine	Basic	x		X					X	X	X	X	X
5th year	PATMet-51	Medical ethics	Basic		x						X	X	X	X	X

Family and community medicine

Course Description Form

1. Course Name:
Family and community medicine
2. Course Code:
COMCom-32
3. Semester / Year:
Second Semesters/ third stage
4. Description Preparation Date:
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
4/2
7. Course administrator's name (mention all, if more than one name)
Prof. Ali Abd Ali Sahib **Assisstant Prof. Dr. Atheer Al saffar** **Assisstant Prof. Dr. Nibras Alaa Hussain** **Lecturer: Dr. Methaq Hasan Hommodi** **Lecturer: Dr. Luma kareem Mohammad** Email: methaqhassan@ced.nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	To prepare highly qualified doctors able to meet the community health needs, capable of gathering medical data relevant to these needs and analyze these data statistically.
9. Teaching and Learning Strategies	
Strategy	The course provides the following: - Descriptive statistics with different statistical problem solving - Knowledge of principles of PHC - Knowledge of environmental problems that affect health - Knowledge of common nutritional diseases and calculating individual nutritional needs

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory 2 practical		Introduction: Biostatistics – Data Presentation	PPT, statistical problem	
2	2 theory 2 practical		Environmental Hazards-air pollution Biostatistics – sampling	PPT, statistical problem	
3	2 theory 2 practical		Introduction to Primary Health Care Biostatistics – Central Tendency	PPT, statistical problem	
4	2 theory 2 practical		Water pollution Biostatistics – Dispersion Measures	PPT, statistical problem	
5	2 theory 2 practical		Primary Health Care (characteristics, Elements and Principles) Biostatistics: Probability & normal distribution curve	PPT, statistical problem	
6	2 theory 2 practical		Hazardous waste Biostatistics – Estimation	PPT, statistical problem	
7	2 theory 2 practical		Primary Health Care (Obstacles) Biostatistics – Hypothesis Testing	PPT, statistical problem	
8	2 theory 2 practical		Primary Health Care (Seven star doctors) Introduction to nutrition	PPT, statistical problem	
9	2 theory 2 practical		Biostatistics – Chi Test Global warming	PPT, statistical problem	
10	2 theory 2 practical		Biostatistics – One Samples Healthcare waste	PPT, statistical problem	
11	2 theory 2 practical		Biostatistics – Two Sample Nutritional Assessment	PPT, statistical problem	
12	2 theory 2 practical		Biostatistics – Paired Test The Millennium Development Goals	PPT, statistical problem	

13	2 theory 2 practical		Biostatistics correlation Nutrients deficiency	PPT, Nutrition assessment	
14	2 theory 2 practical		Biostatistics regression protein energy malnutrition	PPT, protein requirement	
15	2 theory 2 practical		Primary Health Care (Levels of care) Clinical cases review	Case based discussion	

10. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc	
11. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Biostatistics, Danials 2014, Weyee
Main references (sources)	PencheonD,etal. Oxford Handbook of Public Health Practice.2nd ed. 2006.
Recommended books and references (scientific journals, reports…)	Text book of occupational and environmental medicine. 2011, fifth edition
Electronic References, Websites	1. Manual and books of Iraqi MOH 2. WHO & UNICEF websites

Course Description Form

12. Course Name:
Family and community medicine
13. Course Code:
COMCom−31
14. Semester / Year:
First Semesters/ Fourth stage
15. Description Preparation Date:
16.Available Attendance Forms:

17.Number of Credit Hours (Total) / Number of Units (Total)
6/4.5

18. Course administrator's name (mention all, if more than one name)
Prof. Ali Abd Ali Sahib **Assisstant Prof. Dr. Atheer Al saffar** **Assisstant Prof. Dr. Nibras Alaa Hussain** **Lecturer: Dr. Methaq Hasan Hommodi** **Lecturer: Dr. Luma kareem Mohammad** Email: methaqhassan@ced.nahrainuniv.edu.iq

19. Course Objectives	
Course Objectives	To prepare high level doctors capable of conducting researches and studies about community health problems and healthy life style with implementation of primary health care programs.

20. Teaching and Learning Strategies	
Strategy	The course provides the following: - Knowledge of programs concerned with mother and child health - Knowledge of behavior related diseases - Knowledge of epidemiological distribution of diseases. - Knowledge of types of researches study design - Knowing the risk of occupations - Knowledge of the family medicine doctor rules and duties

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	3 theory 3 practical		Epidemiology of Occupational Medicine Introduction to Family Medicine School health program	PPT, PHC center visit	
2	3 theory 3 practical		Introduction to epidemiology Dynamics of disease transmission School health psychology	PPT, PHC center visit	
3	3 theory 3 practical		Occupational hazards Family Medicine, Principles PHC psychology	PPT, problem solving	
4	3 theory 3 practical		Epidemiology- Outbreak Family Medicine, making decisions Breast Feeding	PPT, problem solving	
5	3 theory 3 practical		Antenatal care programs Epidemiology- Investigation of epidemic Growth Monitoring	PPT, problem solving	
6	3 theory 3 practical		Heavy metals Maternal mortality- causes and prevention Family Planning	PPT, problem solving	
7	3 theory 3 practical		Epidemiology- Risk assessment Methodology of Research-introduction Immunization	PPT, problem solving	
8	3 theory 3 practical		Epidemiology- Cause and effect Family Medicine, Approach to health through human life IMNCH-1	PPT, problem solving	
9	3 theory 3 practical		Study designs Occupational lung diseases IMNCH-1	PPT, problem solving	
10	3 theory 3 practical		Demography-Rates, proportion, ratios Systemic effect of	PPT, problem solving	

			occupational hazards		
11	3 theory 3 practical		Analytic study design Demography-Life table	PPT, problem solving	
12	3 theory 3 practical		Demography- Population pyramids Sociology of medicine	PPT, problem solving	
13	3 theory 3 practical		Research ethics Evidence - Based Medicine	PPT, problem solving	
14	3 theory 3 practical		Communication skills and patient doctor relationship Occupational health effect	PPT, problem solving	
15	3 theory 3 practical		School health programs ICD11	PPT, problem solving	

21. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc	
22. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	2. Leon Gordis. Epidemiology, 2009, 4th edition
Main references (sources)	1. Hennekens C H and Buring J E. Epidemiology in medicine.2nd edition 2. Essentials of Family Medicine (2012) 3. Taylors Manual of Family Medicine (2015)
Recommended books and references (scientific journals, reports…)	Text book of occupational and environmental medicine William rom.2020,
Electronic References, Websites	3. WHO website 4. CDC website

Course Description Form

1. Course Name:

Family and community medicine

2. Course Code:

COMCom-42

3. Semester / Year:

Second Semesters/ Fourth stage

4. Description Preparation Date:

5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

4/3.5

7. Course administrator's name (mention all, if more than one name)

Prof. Ali Abd Ali Sahib
Assisstant Prof. Dr. Atheer Al saffar
Assisstant Prof. Dr. Nibras Alaa Hussain
Lecturer: Dr. Methaq Hasan Hommodi
Lecturer: Dr. Luma kareem Mohammad

Email: methaqhassan@ced.nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	To prepare high level doctors capable of estimating community health needs and solving health problems of communicable or noncommunicable diseases and development of healthy lifestyle for the community.

9. Teaching and Learning Strategies

Strategy	The course provides the following: - Qualify students about principals of family and community medicine and its relations with the Iraqi health system. - Enable students in conducting researches that matters to people health, including research methods, data collection and statistical analysis - Ability to know and implement the prevention of most common communicable diseases. - Ability to know risk factors of noncommunicable diseases and their prevention - Knowledge of health administration principles - Ability to know and implement the prevention of most common occupational and environmental diseases

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory 3 practical		Epid.of MMR Epid. Of sexual transmitted diseases	PPT, conducting field researches	
2	2 theory 3 practical		Epid. Of DPT Introduction Non Communicable diseases	PPT, conducting field researches	
3	2 theory 3 practical		Epid of Cholera Epid. Of TB 1	PPT, conducting field researches	
4	2 theory 3 practical		Epid of Rabies Epid. Of cardiovascular diseases	PPT, conducting field researches	
5	2 theory 3 practical		Epid. of viral Hepatitis Epid. of Bilharzia	PPT, conducting field researches	
6	2 theory 3 practical		Epid. of TB 2 Epid. of Malaria	PPT, conducting field researches	
7	2 theory 3 practical		Epid.of HIV Introduction to Health Administration	PPT, conducting field researches	
8	2 theory 3 practical		Epid. Of Hypertension Iraq health care system	PPT, conducting field researches	
9	2 theory 3 practical		Epid.of Leishmaniasis Epid. Of Diabetes	PPT, conducting field researches	
10	2 theory 3 practical		Epid. Of Polio Epid. Of Brucellosis	PPT, conducting field researches	

11	2 theory 3 practical		Epid.of Influenza Epid. Of chronic respiratory diseases	PPT, conducting field researches	
12	2 theory 3 practical		Epid.of Typhoid Management and planning	PPT, conducting field researches	
13	2 theory 3 practical		Epid. of COVID Epid. Of Cancer	PPT, conducting field researches	
14	2 theory 3 practical		Epid. of Epilepsy Leadership	PPT, conducting field researches	
15	2 theory 3 practical		Epidemiology of scabies Problem solving	PPT, conducting field researches	

10. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

11. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Abram"sbenenson. Control of communicable diseases/14th edition.2015
Main references (sources)	1. Leon Gordis. Epidemiology, 2009, 4th edition 2. Essentials of Family Medicine (2012) 3. Taylors Manual of Family Medicine (2015)
Recommended books and references (scientific journals, reports…)	1. Text book of occupational and environmental medicine William rom.2020, 2. Handbook on monitoring and evaluation (Amjad Niazi).2004
Electronic References, Websites	1. WHO website 2. CDC website

Program Description/ Community Department

Program Description				
Year/Level	Course code	Course title	Credit hours	
			Theoratical	practical
2023/2024 4th level	NM04-COMCom-31	Family and community medicine1	3	3
2023/2024 3ed level	NM03-COMCom-32	Family and community Medicine	2	3
2023/2024 4th level	NM04-COMCom42	Family and community medicine	2	3

Program Skills Outline/Community Department

Program Skills Outline															
				Required program Learning outcomes											
Year / Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A 1	A 2	A 3	A 4	B 1	B 2	B 3	B 4	C 1	C 2	C 3	C 4
3ed	NM03-COMCom-32	Family and community medicine	Basic	✓	✓	✓	✓			✓	✓	✓		✓	
4th	NM04-COMCom-41	Family and community medicine	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4th	NM04-COMCom-42	Family and community medicine	Basic	✓		✓	✓	✓	✓	✓	✓		✓		✓

Pharmacology

Course Description Form

1. Course Name:
Pharmacology1st Semester and Pharmacology12nd Semester
2. Course Code:
PHRphr-31 PHRphr-32
3. Semester / Year:
Semester course 1st and2nd stage 3ed
4. Description Preparation Date:
2023-2024
5. Available Attendance Forms:
Theoretical lectures - practical labs
6. Number of Credit Hours (Total) / Number of Units (Total)
75 hrs. per 1st Semester 75 hrs. per 2nd Semester
7. Course administrator's name (mention all, if more than one name)
Name: Ahmed abu Raghif Email: ar_armat1967@nahrainuniv.edu.iq
8. Course Objectives

Course Objectives	• Mechanism of action of the drug. • Study of side effects and drug interactions. • The effect of the drug on the human body. • pharmacokinetics and absorption. • Physiology and functioning of human body Systems • Nature of bodily functions
9. Teaching and Learning Strategies	
Strategy	1. Conducting practical experiments and using laboratory animals 2. The use of explanatory videos as means to explain scientific materials 3. Use of modern display devices 4. Measuring the work of body functions according to different devices 5.Identification of the toxic substance causing the disease from the clinical symptoms

10-Course Structure

Week	Hours	Required Learning	Unit or subject name	Learning method	Evaluation method

		Outcomes			
Week 15 Weeks per 1st Semester and 15 weeks per 2nd Semester	(3hrs Theory and 2 hours Practical)per week	The action of medicines in the body's organs	Pharmacology theory and practical Exam	Lectures	theory and practical Exam

11-Course Evaluation

Oral Discussions.
Writing exams.
Correspondence.
. Formative assessments.

Summative assessments.
Seminar .

7-Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lipincott Pharmacology latest Edition
Main references (sources)	Bertram G. Katzung, Todd W.,Basic & Clinical Pharmacology, 15th ed. (2020). -Britishpharmacopeia -Clinical pharmacology Rang and Dales pharmacology
Recommended books and references (scientific journals, reports...)	Goodman and Gilman's, The Pharmacological Basis of Therapeutics, 14th ed. (2022). Current opinion in pharmacology - american journal of pharmacology
Electronic References, Websites	Pubmed. BNF; BP; USP www.sciencedirect.com www.scholar.google.com

Department of Pharmacology

Annual Theoretical curriculum for undergraduate students

3rd grade / 1st Semester (2023 – 2024)

Week	Topic
1st	Introduction to pharmacology
	Pharmacokinetics part 1
2nd	Pharmacokinetics part 2
	Pharmacokinetics part 3
	Pharmacodynamic part 1
3rd	Pharmacodynamics part 2
	Pharmacodynamics part 3
	Autonomic Pharmacology Part 1
4th	Autonomic Pharmacology Part 2
	Autonomic Pharmacology / Cholinergic Part 1
	Autonomic Pharmacology / Cholinergic Part 2
5th	Autonomic Pharmacology / Cholinergic Part 3
	Autonomic Pharmacology / Adrenergic Part 1
	Autonomic Pharmacology / Adrenergic Part 2
6th	Diuretic Agents
	Drugs used in hypertension part 1
	Drugs used in hypertension part 2
7th	Drugs used in coronary heart disease part 1
	Drugs used in coronary heart disease part 2
	Drugs used in heart failure part 1
8th	Drugs used in heart failure part 2
	Drugs used in cardiac arrhythmias part 1
	Drugs used in cardiac arrhythmias part 2
9th	Antipsychotic Drugs Part 1
	Antipsychotic Drugs Part 2
	Anti-epileptics part 1

10th	Anti-epileptics part 2
	Anxiolytics, sedatives and hypnotic drugs
	Antidepressant Drugs Part 1
11th	Antidepressant Drugs Part 2
	Anti-Parkinson's drugs
	Opioid analgesics & antagonists part 1
12th	Opioid analgesics & antagonists part 2
	Skeletal muscle relaxants
	General Anesthetics part 1
13th	General anesthetics part 2
	Serotonin agonists and antagonists
	Local anesthetics
14th	Histamine & anti-histamine drugs
	Prostaglandins
15th	Alcohols
	NSAIDs & disease-modifying anti-rheumatic agents
	Drugs used for Gout

Al-Nahrain University
College of Medicine
Department of Pharmacology

Annual Practical curriculum for undergraduate students
3rd grade / 1st Semester (2023 – 2024)

Week	Lab Topic
1st	Assessment of lab animals' general health, animal handling, and how to write a report
2nd	Methods of blood collection and animal dissection
3rd	Routes of administration
4th	Types of dosage forms
5th	Problems solving in pharmacokinetics and pharmacodynamics.
6th	Nicotine pharmacology and toxicity
7th	Effects of parasympathomimetic on glandular secretions
8th	Drugs acting on the eye
9th	Digitalis toxicity
10th	Evaluation of the analgesic activity of NSAIDs
11th	Evaluation of the analgesic activity of opioids
12th	Determination of the anti-inflammatory effect of NSAIDs
13th	Evaluation of anticonvulsants
14th	Evaluation of antiepileptics
15th	Evaluation of general anesthetics

Al-Nahrain University
College of Medicine
Department of Pharmacology

Annual Theoretical curriculum for undergraduate students
3rd grade / 2nd Semester

Week	Topic
1st	ANXIOLYTICS, SEDATIVES AND HYPNOTIC DRUGS
	ANTI-EPILEPTICS
	GENERAL ANESTHETICS
2nd	INSULIN & ORAL ANTI-DIABETICS-1
	INSULIN & ORAL ANTI-DIABETICS-2
	INSULIN & ORAL ANTI-DIABETICS-3
3rd	CORTICOSTEROIDS
	THYROID & ANTI-THYROID DRUGS
	SEX HORMONES & CONTRACEPTIVES
4th	DRUGS ACTING ON THE UTERUS
	HYPOTHALMIC & PITUITARY HORMONES
	ANTI-BACTERIAL DRUGS [INTRODUCTION & PENICILLINS]
5th	ANTI-BACTERIAL DRUGS [CELL WALL INHIBITITORS]
	ANTI-BACTERIAL DRUGS [PROTEIN SYNTHESIS INHIBITORS]
	ANTI-BACTERIAL DRUGS [AMINOGLYCOSIDES]
6th	ANTI-BACTERIAL DRUGS-5[SULFONAMIDES, FLUOROQUINOLONES]
	ANTI-FUNGAL DRUGS
	ANTI-VIRAL DRUGS
7th	ANTI-TUBERCULOSIS & ANTI-LEPROSY DRUGS-1
	DRUGS ACTING ON GIT
	ANTI-PROTOZOAL & ANTI-PARASITICS DRUGS
8th	SEROTONIN AGONISTS AND ANTAGONISTS
	HISTAMINE & ANTI-HISTAMINE DRUGS
	PROSTAGLANDINS
9th	ALCOHOLS
	NSAIDS & DISEASE-MODIFYING ANTI-RHEUMATIC AGENTS

	DRUGS USED FOR GOUT
10th	DRUGS AFFECTING ON HEMATOPOIETIC SYSTEM
	DRUGS ACTING ON BRONCHIAL MUSCLES
	CANCER CHEMOTHERAPY-1
11th	CANCER CHEMOTHERAPY-2
	DRUGS AFFECTING BONE MINERALS
	IMMUNOMODULATORS
12th	INTRODUCTION OF TOXICOLOGY-1
	INTRODUCTION OF TOXICOLOGY-2
	PHYTOTHERAPY-1
13th	PHYTOTHERAPY-2
	PHYTOTHERAPY-3
	PHYTOTHERAPY-4
14th	
15th	

Al-Nahrain University
College of Medicine
Department of Pharmacology

Annual Practical curriculum for undergraduate students
3rd grade / 1st Semester (2023 – 2024)

Week	Lab Topic
1st	Assessment of lab animals' general health, animal handling, and how to write a report
2nd	Methods of blood collection and animal dissection
3rd	Routes of administration
4th	Types of dosage forms
5th	Problems solving in pharmacokinetics and pharmacodynamics.
6th	Nicotine pharmacology and toxicity
7th	Effects of parasympathomimetic on glandular secretions
8th	Drugs acting on the eye
9th	Digitalis toxicity
10th	Evaluation of the analgesic activity of NSAIDs
11th	Evaluation of the analgesic activity of opioids
12th	Determination of the anti-inflammatory effect of NSAIDs
13th	Evaluation of anticonvulsants
14th	Evaluation of antiepileptics
15th	Evaluation of general anesthetics

Program Description/ Pharmacology Department

Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	practical
2023/2024 3ed level	NM03-PHRphr-31	Pharmacology1st Semester	3	2
2023/2024 3ed level	NM03-PHRphr-32	Pharmacology2st Semester	3	2

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A 1	A2	A 3	A 4	B 1	B 2	B 3	B4	C1	C2	C3	C4
3rd Stage		Pharmacology 1st Semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√
		Pharmacology 2st Semester	Basic	√	√	√	√	√	√	√	√	√	√	√	√

Chemistry and Biochemistry

Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: 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 program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: **Al-Nahrain University**.....

Faculty/Institute: **College of Medicine**.....

Scientific Department: **Chemistry and Biochemistry**.....

Academic or Professional Program Name: **Molecular biology**

Final Certificate Name: .....

Academic System: **Quarterly** .....

Description Preparation Date: **20/2/2024**

File Completion Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

To be a leading center of excellence in biochemistry within the College of Medicine at Al-Nahrain University, dedicated to advancing scientific knowledge, fostering innovative research, and producing highly skilled graduates equipped to address the evolving challenges in healthcare and biomedical sciences.

2. Program Mission

Program mission is committed to providing exceptional education, conducting cutting-edge research, and contributing significantly to the medical field. Our mission is to nurture a learning environment that cultivates a deep understanding of biochemistry and molecular biology, fosters critical thinking, and prepares students for impactful careers in medicine, research, and healthcare leadership.

3. Program Objectives

1. To ensure the provision of students with the basic knowledge in biochemistry through an updated curriculum.
2. To equip students with the knowledge and skills necessary for medical practice, research, and advanced studies.
3. To encourage student involvement in research projects, internships, and extracurricular activities.
4. To consolidate professional cooperation in teaching and scientific research at the local and international levels.
5. To design postgraduate studies in the field of medical and clinical biochemistry in a manner that helps students become scholars and specialized researchers in this field.
6. To establish a high-quality research strategy in the field of medical and clinical biochemistry aimed at creating new insights, improving the health condition of community members, and overcoming diseases

4. Program Accreditation

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements	1	2		Basic, covers fundamental concepts and skills required by all students within the college
Department Requirements	1	2		Core, specialized courses that are essential for a deep understanding of molecular biology. These courses are tailored to equip students with both theoretical and practical knowledge in the field.
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2023-2024/ 2nd	CHMMol-22	Molecular Biology	1	2

8. Expected learning outcomes of the program

Knowledge	
The doctor as a scholar and	The graduate will be able to apply to medical practice biomedical

scientist	scientific principles, method and knowledge obtained from the program.
Skills	
The doctor as practitioner	Use information effectively in a medical context
The doctor as practitioner	Carry out practical procedures safely and effectively
Ethics	
Patient safety and quality assurance	Place patients' needs and safety at the center of the care process, promote and maintain health and safety in all care settings, and recognize how errors can happen in practice in order to overcome them.
Leadership and teamwork	Must learn and work effectively within a multi-professional and multi-disciplinary team and across multiple care settings.

9. Teaching and Learning Strategies

The Molecular Biology program for second-year medical students adopts a multifaceted approach to teaching and learning, designed to accommodate diverse learning styles and to foster a deep understanding of molecular biology principles and their application in medical science. The strategies outlined below are integral to implementing the program, ensuring that students achieve the desired learning outcomes effectively.

Interactive Lectures

Lectures serve as the foundational instructional method, delivering core

theoretical knowledge. To enhance engagement, lectures incorporate interactive elements such as real-time polling, question-and-answer sessions, and discussions of current research findings in molecular biology. This approach facilitates active learning and encourages students to engage critically with the material.

Laboratory Practicals

Hands-on laboratory sessions are a cornerstone of the program, allowing students to apply theoretical knowledge to practical scenarios. These sessions include demonstrations, supervised experiments, and independent projects, covering techniques such as DNA/RNA extraction, PCR, gene sequencing, and protein analysis. Emphasis is placed on developing technical proficiency, problem-solving skills, and an understanding of laboratory safety and protocols.

Case Studies and Problem-Based Learning (PBL)

Case studies and PBL sessions are integrated into the curriculum to simulate real-world scenarios and challenges in molecular biology. Through these activities, students work in teams to solve complex problems, fostering collaborative skills, critical thinking, and the ability to apply molecular biology concepts to clinical and research settings.

Digital Learning Resources

The program leverages digital learning resources, including online databases, bioinformatics tools, and virtual lab simulations, to complement traditional teaching methods. These resources offer flexibility in learning and the opportunity to explore molecular biology applications beyond the classroom setting.

Seminars

Seminars in related fields are regularly organized. These sessions expose students to cutting-edge research, emerging technologies, and contemporary issues in molecular biology, enhancing their learning experience and professional development.

Continuous Assessment and Feedback

Assessment is continuous and multifaceted, including quizzes, lab reports, group presentations, and exams. Feedback is provided promptly to support learning and improvement, with opportunities for one-on-one consultations to discuss progress and areas for development.

10. Evaluation methods

Quizzes and Written Exams

Laboratory Reports

4. Case Studies and Problem-Based Learning (PBL) Assessments To evaluate students' application of knowledge to real-world scenarios and their problem-solving skills. Engagement in case studies or PBL sessions where students must analyze scenarios, develop hypotheses, and propose solutions, often followed by group discussion and individual reflection.

5. Midterm and Final Exams: Structured exams that cover all topics discussed throughout the course, including both multiple-choice and essay questions to assess a range of learning outcomes.

6. Practical Skills Assessments To directly assess students' proficiency in laboratory techniques and safety procedures: Practical exams or direct observation during lab sessions, focusing on technique, accuracy, safety practices, and the ability to troubleshoot experiments.

9. Continuous Feedback: Regular feedback from instructors on assignments,

exams, and lab reports, including one-on-one meetings if necessary to discuss academic progress and areas for improvement.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor Associate Professor Lecturer	Chemistry Medicine & surgery	Biochemistry Molecular Immunology			2	
			Knowledge of immune response at the molecular level	Experience with clinical applications		
			Proficiency in PCR, western blotting, sequencing			

Professional Development

Mentoring new faculty members

The mentoring process for new, visiting, full-time, and part-time faculty members is a structured program designed to integrate them into the academic and cultural environment of the institution and department. This process includes:

Orientation Sessions: New faculty members attend orientation sessions that provide an overview of the institution's mission, academic policies, and available resources. These sessions also cover departmental goals, curriculum details, and expectations for teaching and research.

Assigned Mentors: Each new faculty member is paired with an experienced mentor from their department. Mentors are chosen based on their academic achievements, teaching excellence, and alignment with the new member's area of specialization. The mentor-mentee relationship facilitates the sharing of knowledge, teaching strategies, research interests, and professional networks.

Regular Meetings: Scheduled regular meetings between mentors and mentees ensure ongoing

support. These meetings are opportunities for new faculty to discuss challenges, seek advice, and reflect on their professional growth.

Peer Observation: New faculty are encouraged to observe the teaching of their peers and to have their teaching sessions observed in return. This practice fosters a culture of continuous improvement and collegial feedback on teaching methods, classroom management, and student engagement strategies.

Professional Development Workshops: The institution provides workshops and seminars on effective teaching strategies, research methodologies, grant writing, and publication processes. These workshops are tailored to the needs of new faculty and cover both general academic skills and specific topics related to molecular biology.

Professional development of faculty members

The academic and professional development plan for faculty members is a comprehensive approach that supports their continuous growth as educators and researchers. Key components of this plan include:

Teaching and Learning Strategies: Faculty members have access to workshops and seminars on innovative teaching methods, including active learning, online instruction, and assessment design. These sessions aim to enhance pedagogical skills and adapt to changing educational landscapes.

Research Support: The institution provides support for faculty research through grant writing workshops, research sabbaticals, and access to research databases and laboratories. Collaboration with other institutions and industries is also encouraged to foster multidisciplinary research projects.

Assessment of Learning Outcomes: Training sessions on the development and assessment of learning outcomes are offered, focusing on aligning teaching strategies with desired educational objectives and using assessment data to inform curriculum development.

Conferences and Seminars: Faculty are encouraged to participate in and present at national and international conferences. Financial support for conference attendance and participation is often provided, facilitating professional networking and exposure to the latest advancements in their fields.

Online Resources and E-Learning: Access to online platforms for professional development in teaching, research, and technology use in education. These resources offer flexibility for faculty to engage in learning opportunities that fit their schedules and interests.

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

Important Sources of Information About the Program

1. University Website
2. Program Brochure
3. Academic Catalog
4. Faculty Advisors
5. Open Days and Information Sessions
6. Alumni Testimonials
7. social media and Forums

14. Program Development Plan

Curriculum Enhancement
Conduct annual reviews of course content and learning outcomes in collaboration with faculty, students, and industry experts.
Integrate interdisciplinary courses that connect molecular biology with other medical fields, such as bioinformatics, pharmacogenomics, and personalized medicine.
Expand hands-on laboratory experiences and research opportunities for students to apply their learning in real-world contexts.
Faculty Development and Research
Implement professional development programs focusing on innovative teaching methods, research skills enhancement, and leadership in academia.
Encourage and support faculty participation in national and international conferences, workshops, and collaborations.
Promote interdisciplinary research projects and partnerships with other institutions, healthcare organizations, and the biotechnology industry.
Student Support and Engagement
Develop mentoring programs that pair students with faculty mentors for academic guidance, career advice, and research collaboration.
Establish student-led organizations and interest groups to promote community engagement, leadership, and professional networking.
Provide resources and workshops on career planning, graduate school applications, and skills

development relevant to the molecular biology field.

1. Course Name:

2. Course Code:

3. Semester / Year: Second/ 2023-2024

4. Description Preparation Date: August 15, 2023

5. Available Attendance Forms:

In-person, Hybrid (In-person and Online)

6. Number of Credit Hours (Total) / Number of Units (Total)

2 Credit Hours / 2 Units

7. Course administrator's name (mention all, if more than one name)

Name: Mohammed A. M. Albayati Email: mohammedchina@nahrainuniv.edu.iq
Estabraq AR. AlWasiti Email: estabraqalwasiti@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	**To introduce students to the fundamental concepts and techniques of molecular biology.** **To develop practical laboratory skills relevant to molecular biology research and applications in medicine.** **To foster critical thinking and analytical skills through the application of molecular biology concepts to medical case studies.**

9. Teaching and Learning Strategies

Strategy	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	Definition of molecular biology History and importance of molecular biology in medicine Techniques used in molecular biology research Laboratory safety and basic	Introduction to molecular biology	Lecture, Discussion	Quiz

		techniques			
2	3	Structure and function of DNA and RNA DNA replication, repair, and recombination Practical: DNA extraction and purification	Nucleic acids and DNA replication	Lecture, Lab	Lab Report
3	6	Transcription and translation Gene regulation and epigenetics Practical: RNA isolation and analysis	Gene expression and regulation	Lecture, Lab	Quiz, Lab Report
4	3	Genetic variation and inheritance Genomics and next-generation sequencing Practical: primer design for PCR amplification	Genetic variation and genomics	Lecture, Case Study	Case Study Presentation
5	3	Protein synthesis and post-translational modification Practical: Protein isolation and analysis, western blotting	Proteins and protein synthesis	Discussion, Guest Lecture	Reflective Essay
6	6	Cloning and expression vectors Restriction enzymes and DNA ligation Practical: Cloning and expression of recombinant proteins	Recombinant DNA technology	Lecture, Project	Group Project
7	3	Polymerase chain reaction (PCR) and its applications RT-PCR and gene expression analysis Practical: PCR amplification and	PCR and gene amplification	Lecture, Discussion	Quiz

		gene expression analysis			
8	3	Sanger sequencing and its applications Next-generation sequencing and bioinformatics Practical: DNA sequencing and bioinformatics analysis	DNA sequencing and analysis	Lecture, Seminar	Final Exam
9		CRISPR-Cas9 technology and its applications Gene therapy and its challenges Practical: Genome editing and gene therapy experiments	Genome editing and gene therapy		
10		Molecular diagnostics and its applications Pharmacogenomics and personalized medicine Practical: Molecular diagnostic experiments and data analysis	Molecular diagnostics and personalized medicine		

11. Course Evaluation

Quizzes: 10%
Lab Reports: 10%
Midterm exam:20
Final Exam: 60%

12. Learning and Teaching Resources

Required textbooks	**Required Textbooks:** Stryer, L., Berg, J. M., Tymoczko, J. L., & Gatto, G. J. (2019). Biochemistry. W. H. Freeman. https://books.google.iq/books?id=S7-CDwAAQBAJ
Main references	Molecular Biology: Principles and Practice by Cox, Doudna, and O'Donnell
Recommended books and references (scientific journals, reports…)	Scientific journals such as Nature Reviews Molecular Cell Biology and The Journal of Molecular Biology. Molecular Diagnostics: Fundamentals, Methods, and Clinical Applications by Lela Buckingham.
Electronic References, Websites	• NCBI (National Center for Biotechnology Information): https://www.ncbi.nlm.nih.gov/PubMed: https://pubmed.ncbi.nlm.nih.gov/

Infrastructure and Resources
Invest in the latest laboratory equipment, software, and digital learning tools to enhance the practical training and research capabilities of the program.
Expand access to online databases, journals, and professional networks for students and faculty.
Improve classroom and laboratory spaces to facilitate interactive learning and collaboration.
Quality Assurance and Accreditation
Conduct regular self-assessments and participate in external reviews by accreditation bodies.
Collect and analyze feedback from students, alumni, employers, and faculty to identify areas for improvement.
Implement changes and innovations based on assessment findings to continuously enhance the program's quality and outcomes.
Community and Industry Engagement
Organize guest lectures, workshops, and internships involving professionals and alumni from various sectors of the molecular biology and healthcare industries.
Facilitate collaborative research projects and initiatives with external partners to address current challenges in healthcare and biotechnology.
Establish an advisory board comprising industry leaders, alumni, and faculty to guide the program's strategic direction and ensure its relevance to workforce needs.

Program Skills Outline															
				Required program Learning outcomes											
Year/ Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A 1	A 2	A 3	A 4	B 1	B 2	B 3	B 4	C 1	C 2	C 3	C 4
2023-2024/2nd	CHMMol-22	Molecular biology	Basic	✓					✓					✓	

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: 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 program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .**Al–Nahrain University**……

Faculty/Institute: .**College of Medicine**……

Scientific Department: .**Chemistry and Biochemistry**……

Academic or Professional Program Name: **Biochemistry**……

Final Certificate Name: .**Biochemistry**……

Academic System: **Quarterly** ……

Description Preparation Date: **20/2/2024**

File Completion Date:

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

To be a leading center of excellence in biochemistry within the College of Medicine at Al-Nahrain University, dedicated to advancing scientific knowledge, fostering innovative research, and producing highly skilled graduates equipped to address the evolving challenges in healthcare and biomedical sciences.

2. Program Mission

Program mission is committed to providing exceptional education, conducting cutting-edge research, and contributing significantly to the medical field. Our mission is to nurture a learning environment that cultivates a deep understanding of biochemistry, fosters critical thinking, and prepares students for impactful careers in medicine, research, and healthcare leadership.

3. Program Objectives

1. To ensure the provision of students with the basic knowledge in biochemistry through an updated curriculum.
2. To equip students with the knowledge and skills necessary for medical practice, research, and advanced studies.
3. To encourage student involvement in research projects, internships, and extracurricular activities.
4. To consolidate professional cooperation in teaching and scientific research at the local and international levels.
5. To design postgraduate studies in the field of medical and clinical biochemistry in a manner that helps students become scholars and specialized researchers in this field.
6. To establish a high-quality research strategy in the field of medical and clinical biochemistry aimed at creating new insights, improving the health condition of community members, and overcoming diseases.

4. Program Accreditation

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements	**1**	**3.5**		**Basic**
Department Requirements	**1**	**3.5**		**Basic**
Summer Training				
Other				

1. Expected learning outcomes of the program

Knowledge	
The doctor as a scholar and scientist	The graduate will be able to apply to medical practice biomedical scientific principles, method and knowledge relating to biochemistry
Skills	
The doctor as practitioner	Use information effectively in a medical context
The doctor as practitioner	Carry out practical procedures safely and effectively
Ethics	
Patient safety and quality assurance	Place patients' needs and safety at the center of the care process, promote and maintain health and safety in all care settings, and recognize how errors can happen in practice in order to overcome them.
Leadership and teamwork	Must learn and work effectively within a multi-professional and multi-disciplinary team and across multiple care settings.

* This can include notes whether the course is basic or optional.

2. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2023-2024/ First	CHMBio-12	Biochemistry	2	1.5

3. Teaching and Learning Strategies

Traditional lectures, large group teaching, seminars, and practical sessions

4. Evaluation methods

Summative assessment: Quizzes, mid-term and final exams (including both theoretical and practical examinations)
Formative assessment includes analysis of students understandings and recognizing the points of strength and weakness in learning process and hence working on areas that need improvement; these are achieved via asking strategic questions such as "how" and "why" during the lectures, practical sessions and assigning homework for clinical problem-solving.

5. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Professor Lecturer Chemist	Chemistry	Medical Chemistry Or Biochemistry	• MSc or PhD in Chemistry, Medical chemistry or Biochemistry • BSc in Chemistry		8	

Professional Development
Mentoring new faculty members
By urging them to attend theoretical and practical lectures to gain experience and skill in the teaching and learning process
Professional development of faculty members
By contributing and participating in local and international workshops, courses and conferences

6. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

7. The most important sources of information about the program

Sources of information come mainly from textbooks, also animations or images that provide further aid to understand the program lectures are obtained from internet sources.

8. Program Development Plan

- Update sources, lectures and practical methods annually.
- Develop and update with other relevant clinical programs, and present them for discussion with the department's scientific committee.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024/ First	CHMBio-12	Biochemistry	Basic	—					—					—	

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

1. Course Name: Biochemistry

2. Course Code: CHMBio-12

3. Semester / Year: Second/ 2023-2024

4. Description Preparation Date: 20/2/2024

5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

75 hours(total): 2hrs (theory) and 3hrs (practical)/week
(3.5 credits)

7. Course administrator's name (mention all, if more than one name)

Name: Assistant Professor Dr. Raid Jasim Al-Tamimi
Email: rjtimimi68@nahrainuniv.edu.iq
Name: Lecturer Dr. Wasan Taha Saadoon
Email: wasanbashaga@ nahrainuniv.edu.iq
Name: Lecturer Dr. Hend Ahmed Abbas
Email: hind.abass@nahrainuniv.edu.iq
Name: Lecturer Hiba Jasim Swadi
Email: haibi.83.89.83@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	• **Examination of the structure of and function of proteins, carbohydrates, lipids, in detai order to understand how their unique chemical and physical properties contribute to t biological function……** • **The structures, specificities and kinetics of selected enzymes will illustrate the enorm diversity of this group of catalytic molecules……** • **Explain normal human structure, functions and scientific bases for common dise presentations…..**

9. Teaching and Learning Strategies

Strategy	**Lectures whether theoretical or practical given in power point presentation.** **Animations or Figures that help understand lectures better obtained from inter**

	reliable sources are presented **Power point presentation of seminars assigned to students related to the differ** **subjects of the program.** **Practical experiments in accordance with the subjects of the program.**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Weeks 1-4	8 theory +12 practical	Structure, function, and biological importance	Carbohydrates	Lectures	Summative and formati assessment
Weeks 5-7	6 theory and 9 practical	Structure, function, and biological importance	Lipids	Lectures	Summative and formati assessment
Weeks 8-11	8 theory and 12 practical	Structure, function, and biological importance	Amino acids and proteins	Lectures	Summative and formati assessment
Weeks 12-15	8 theory and 12 practical	Structure, function, and biological importance	Enymes	Lectures	Summative and formati assessment

11. Course Evaluation

The mark is distributed as follows:

- **Mid-term average of 30% divided into:**

✓ **15 % for the midterm theoretical exam** (that includes multiple choice questions, matching questions, fill in the blanks, true and false statements, labeling diagrams, and essay questions.

✓ **10% for practical exam and reports** (that includes the results and calculations of unknown samples of the studied subjects).

✓ **5% of short quizzes** (4 summative tests and 2 formative tests).

midterm theory	Practical	Quizzes	Total
15%	10%	5%	30%

- **Final course exam of 70% divided into:**

✓ **50% theoretical examination:** include (60%) of single choice questions answered on a bubble sheet, and (40%) of essay questions of short answers.

✓ **20% practical exam:** 10% theoretical: spot examination or multiple choice questions, matching, blanks or true or false, and 10% performing an experiment within the practical biochemistry studied subjects.

Final theory	Final Practical	Total
50%	**20%**	**70%**

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Biochemistry, Lippincotts's Illustrated Reviews
Main references (sources)	Biochemistry, Lippincotts's Illustrated Reviews
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: .**Al–Nahrain University**……

Faculty/Institute: .**College of Medicine**……

Scientific Department: .**Chemistry and Biochemistry**……

Academic or Professional Program Name: **Medical Chemistry**……

Final Certificate Name: **…Medical Chemistry**……

Academic System: **Quarterly** ……

Description Preparation Date: **20/2/2024**

File Completion Date:

Signature:

Head of Department Name:

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

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1. To ensure the provision of students with the basic knowledge in biochemistry through an updated curriculum.
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4. To consolidate professional cooperation in teaching and scientific research at the local and international levels.
5. To design postgraduate studies in the field of medical and clinical biochemistry in a manner that helps students become scholars and specialized researchers in this field.
6. To establish a high-quality research strategy in the field of medical and clinical biochemistry aimed at creating new insights, improving the health condition of community members, and overcoming diseases.

4. Program Accreditation

None

5. Other external influences

None

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements	1	4.5		Basic
Department Requirements	1	4.5		Basic
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2023-2024/ First	CHMMed-11	Medical Chemistry	3	1.5

8. Expected learning outcomes of the program

Knowledge	
The doctor as a scholar and scientist	The graduate will be able to apply to medical practice biomedical scientific principles, method and knowledge obtained from the program.

Skills	
The doctor as practitioner	Use information effectively in a medical context
The doctor as practitioner	Carry out practical procedures safely and effectively
Ethics	
Patient safety and quality assurance	Place patients' needs and safety at the center of the care process, promote and maintain health and safety in all care settings, and recognize how errors can happen in practice in order to overcome them.
Leadership and teamwork	Must learn and work effectively within a multi-professional and multi-disciplinary team and across multiple care settings.

9. Teaching and Learning Strategies

Traditional lectures, large group teaching, seminars, and practical sessions

10. Evaluation methods

Summative assessment: Quizzes, mid-term and final exams (including both theoretical and practical examinations)
Formative assessment includes analysis of students understandings and recognizing the points of strength and weakness in learning process and hence working on areas that need improvement; these are achieved via asking strategic questions such as "how" and "why" during the lectures, practical sessions and assigning homework for clinical problem-solving.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Professor Lecturer Chemist	Chemistry	Medical Chemistry Or	• MSc or PhD in Chemistry, Medical chemistry or Biochemistry		8	

		Biochemistry	• BSc in Chemistry			

Professional Development
Mentoring new faculty members
By urging them to attend theoretical and practical lectures to gain experience and skill in the teaching and learning process
Professional development of faculty members
By contributing and participating in local and international workshops, courses and conferences

12. Acceptance Criterion

(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program

Sources of information come mainly from textbooks, also animations or images that provide further aid to understand the program lectures are obtained from internet sources.

14. Program Development Plan

- Update sources, lectures and practical methods annually.
- Develop and update with other relevant clinical programs, and present them for discussion with the department's scientific committee.

Program Skills Outline																
				Required program Learning outcomes												
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics				
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	
2023-2024/ First	CHMMed-11	Medical Chemistry	Basic	—					—					—		

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

1. Course Name: Medical Chemistry

2. Course Code: CHMMed-11

3. Semester / Year: First/ 2023-2024

4. Description Preparation Date: 20/2/2024

5. Available Attendance Forms:

6. Number of Credit Hours (Total) / Number of Units (Total)

90 hours(total): 3hrs (theory) and 3hrs (practical)/week
(4.5 credits)

7. Course administrator's name (mention all, if more than one name)

Name: Assistant Professor Dr. Raid Jasim Al-Tamimi
Email: rjtimimi68@nahrainuniv.edu.iq
Name: Lecturer Dr. Wasan Taha Saadoon
Email: wasanbashaga@ nahrainuniv.edu.iq
Name: Lecturer Dr. Hend Ahmed Abbas
Email: hind.abass@nahrainuniv.edu.iq
Name: Lecturer Hiba Jasim Swadi
Email: haibi.83.89.83@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	• **The primary goal of this course in general medical chemistry is to present the fundamental principles and chemical foundation essential to understanding physiologi chemistry for students of medicine.** • **Throughout the course, chemistry is presented as an experimental science v biomedical examples in which theories evolve and change as new information is acqui to show how this vast science is applied to areas of interest to the medical students.**

9. Teaching and Learning Strategies

Strategy	**Lectures whether theoretical or practical given in power point presentation. Animations or Figures that help understand lectures better obtained from inter reliable sources are presented**

	Power point presentation of seminars assigned to students related to the differ subjects of the program. **Practical experiments in accordance with the subjects of the program.**

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1	3 theory +3 practical	Radiation dosages and medi uses of radioactive isotop	Radioactivity	Lectures	Summative and formati assessment
Week 2	3 theory +3 practical	Aqueous solutions, solubility, concentrations of solutions. Electrolytes & nonelectroly	Aqueous solutions	Lectures	Summative and formati assessment
Week 3	3 theory +3 practical	Osmosis & osmotic Pressure. Colloids and their properties, emulsions, emulsifying agents, dialys haemodialysis.	Some properties o aqueous solutio	Lectures	Summative and formati assessment
Week 4	3 theory +3 practical	Their medical relations, and diffusion of respiratory gases.	Gases	Lectures	Summative and formati assessment
Weeks 5-6	6 theory and 6 practical	Acid and Bases, pH buffer acid-base balance in bloo	Buffer systems	Lectures	Summative and formati assessment
Week 7	3 theory +3 practical	Reaction rate, activation energy chemical equilibri	Rate of reactions	Lectures	Summative and formati assessment
Week 8	3 theory and 3 practical	Cis and trans conformation Organic structure of triglyceri Saturated fats, cis-fats and trans-fats Health concerns of trans-fats Sources of aromatic hydrocarbons Polyaromatic hydrocarbons (PAHs) Health effects of PAHs	Hydrocarbons	Lectures	Summative and formati assessment
Week 9	3 theory and 3 practical	The physiological effects of alcohols	Alcohols	Lectures	Summative and formati assessment
Weeks 10	3 theory and 3 practical	Biologically important Phenolic Compounds. Health effects of certain Phenols The importance of the disul bonds in proteins	Phenols and Thiol	Lectures	Summative and formati assessment
Week 11	3 theory and 3 practical	Biologically important aldehydes and ketones Formation of hemiacetals, imines, and their biologic importance	Aldehydes and Ketones	Lectures	Summative and formati assessment
Week 12	3 theory and 3 practical	Biologically important amin and ethers Biological importance of quaternary ammonium compounds and Alkaloid	Amines and Ether	Lectures	Summative and formati assessment
Week 13	3 theory and 3 practical	Structures, properties, and biological importance	Carboxylic acids a their derivatives	Lectures	Summative and formati assessment
Week 14	3 theory and	Recognizing Chiral	Sterioisomers	Lectures	Summative and formati

	3 practical	Compounds Optical Activity of enantion S and R, Nomenclature Chiral Compounds and Livi Systems			assessment
Week 15	3 theory and 3 practical	Important polymers Medical Uses of Polymers	Polymers	Lectures	Summative and formati assessment

11. Course Evaluation

The mark is distributed as follows:

- **Mid-term average of 30% divided into:**

✓ **15 % for the midterm theoretical exam** (that includes multiple choice questions, matching questions, fill in the blanks, true and false statements, labeling diagrams, and essay questions.

✓ **10% for practical exam and reports** (that includes the results and calculations of unknown samples of the studied subjects).

✓ **5% of short quizzes** (4 summative tests and 2 formative tests).

midterm theory	Practical	Quizzes	Total
15%	10%	5%	30%

- **Final course exam of 70% divided into:**

✓ **50% theoretical examination:** include (60%) of single choice questions answered on a bubble sheet, and (40%) of essay questions of short answers.

✓ **20% practical exam:** 10% theoretical: spot examination or multiple choice questions, matching, blanks or true or false, and 10% performing an experiment within the practical medical chemistry studied subjects.

Final theory	Final Practical	Total
50%	**20%**	**70%**

12. Learning and Teaching Resources

Required textbooks (curricular books, if a	The Chemical Basis of Life By George H. Schmid
Main references (sources)	The Chemical Basis of Life By George H. Schmid Organic Chemistry: A Short Course By Hart, Craine, Hart

Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	Abozenadah, H., Bishop, A., Bittner, S., Lopez, O., Wi C., and Flatt, P.M. (2017) Consumer Chemistry: H Organic Chemistry Impacts Our Lives. CC BY-NC-SA. https://wou.edu/chemistry/courses/online-chemistrytextbooks/ch105-consumer-chemistry/

وزارة التعليم العالي والبحث العلمي
جهاز الإشراف والتقويم العلمي
دائرة ضمان الجودة والاعتماد الأكاديمي
قسم الاعتماد

دليل وصف البرنامج الأكاديمي والمقرر الدراسي

2024

المقدمة:

يُعد البرنامج التعليمي بمثابة حزمة منسقة ومنظمة من المقررات الدراسية التي تشتمل على إجراءات وخبرات تنظم بشكل مفردات دراسية الغرض الأساس منها بناء وصقل مهارات الخريجين مما يجعلهم مؤهلين لتلبية متطلبات سوق العمل يتم مراجعته وتقييمه سنوياً عبر إجراءات وبرامج التدقيق الداخلي أو الخارجي مثل برنامج الممتحن الخارجي.

يقدم وصف البرنامج الأكاديمي ملخص موجز للسمات الرئيسة للبرنامج ومقرراته مبيناً المهارات التي يتم العمل على اكسابها للطلبة مبنية على وفق اهداف البرنامج الأكاديمي وتتجلى أهمية هذا الوصف لكونه يمثل الحجر الأساس في الحصول على الاعتماد البرامجي ويشترك في كتابته الملاكات التدريسية بإشراف اللجان العلمية في الأقسام العلمية.

ويتضمن هذا الدليل بنسخته الثانية وصفاً للبرنامج الأكاديمي بعد تحديث مفردات وفقرات الدليل السابق في ضوء مستجدات وتطورات النظام التعليمي في العراق والذي تضمن وصف البرنامج الأكاديمي بشكلها التقليدي نظام (سنوي، فصلي) فضلاً عن اعتماد وصف البرنامج الأكاديمي المعمم بموجب كتاب دائرة الدراسات ت م2906/3 في 2023/5/3 فيما يخص البرامج التي تعتمد مسار بولونيا أساساً لعملها.

وفي هذا المجال لا يسعنا إلا أن نؤكد على أهمية كتابة وصف البرامج الاكاديمية والمقررات الدراسية لضمان حسن سير العملية التعليمية.

مفاهيم ومصطلحات:

وصف البرنامج الأكاديمي: يوفر وصف البرنامج الأكاديمي ايجازاً مقتضباً لرؤيته ورسالته وأهدافه متضمناً وصفاً دقيقاً لمخرجات التعلم المستهدفة على وفق استراتيجيات تعلم محددة.

وصف المقرر: يوفر إيجازاً مقتضياً لأهم خصائص المقرر ومخرجات التعلم المتوقعة من الطالب تحقيقها مبرهناً عما إذا كان قد حقق الاستفادة القصوى من فرص التعلم المتاحة. ويكون مشتق من وصف البرنامج.

رؤية البرنامج: صورة طموحة لمستقبل البرنامج الأكاديمي ليكون برنامجاً متطوراً وملهماً ومحفزاً وواقعياً وقابلاً للتطبيق.

رسالة البرنامج: توضح الأهداف والأنشطة اللازمة لتحقيقها بشكل موجز كما يحدد مسارات تطور البرنامج واتجاهاته.

اهداف البرنامج: هي عبارات تصف ما ينوي البرنامج الأكاديمي تحقيقه خلال فترة زمنية محددة وتكون قابلة للقياس والملاحظة.

هيكلية المنهج: كافة المقررات الدراسية / المواد الدراسية التي يتضمنها البرنامج الأكاديمي على وفق نظام التعلم المعتمد (فصلي، سنوي، مسار بولونيا) سواء كانت متطلب (وزارة، جامعة، كلية وقسم علمي) مع عدد الوحدات الدراسية.

مخرجات التعلم: مجموعة متوافقة من المعارف والمهارات والقيم التي اكتسبها الطالب بعد انتهاء البرنامج الأكاديمي بنجاح ويجب أن يُحدد مخرجات التعلم لكل مقرر بالشكل الذي يحقق اهداف البرنامج.

استراتيجيات التعليم والتعلم: بأنها الاستراتيجيات المستخدمة من قبل عضو هيئة التدريس لتطوير تعليم وتعلم الطالب وهي خطط يتم إتباعها للوصول إلى أهداف التعلم. أي تصف جميع الأنشطة الصفية واللاصفية لتحقيق نتائج التعلم للبرنامج.

نموذج وصف البرنامج الأكاديمي

اسم الجامعة: جامعة .... النهرين .....

الكلية/ المعهد: كلية .....الطب.....

القسم العلمي: قسم .....الكيمياء والكيمياء الحياتية.....

اسم البرنامج الأكاديمي او المهني: بكالوريوس .....الطب والجراحة.

اسم الشهادة النهائية: بكالوريوس في . الطب والجراحة.....

النظام الدراسي: فصلي

تاريخ اعداد الوصف: **5/10/2023**

تاريخ ملء الملف: 2024/02/18

التوقيع: **التوقيع:**

اسم رئيس القسم: **اسم المعاون العلمي:**

التاريخ: **التاريخ:**

دقق الملف من قبل

شعبة ضمان الجودة والأداء الجامعي

اسم مدير شعبة ضمان الجودة والأداء الجامعي:

التاريخ

التوقيع

مصادقة السيد العميد

1. رؤية البرنامج

أن نكون مركزًا رائدًا للتميز في علم الكيمياء السريرية داخل كلية الطب في جامعة النهرين، ملتزمين بتقديم المعرفة العلمية المتقدمة، وتعزيز البحث الابتكاري، وإنتاج خريجين مهرة بشكل كبير مجهزين لمواجهة التحديات المتطورة في مجالات الرعاية الصحية والعلوم الطبية السريرية.

2. رسالة البرنامج

يلتزم فرع الكيمياء الحيوية في كلية طب النهرين بتوفير تعليم استثنائي وإجراء أبحاث متطورة والمساهمة بشكل كبير في المجال الطبي.
رسالتنا هي رعاية بيئة تعليمية تنمي الفهم العميق للكيمياء الحياتية السريرية، وتعزز التفكير النقدي، وتعد الطلاب لمهن ذات تأثير في مجال الطب والبحث وقيادة الرعاية الصحية.

3. اهداف البرنامج

الريادة والتميّز في الاداء الأكاديمي من خلال تحقيق الأهداف الأتية:-

1. تحقيق مخرجات الكلية من الأطباء من خلال منهاج شامل.
2. تطوير البرامج الأكاديمية للكلية.
3. تنمية المهارات التعليمية والتدريبية والإدارية والقيادية لدى أعضاء هيئة التدريس والإداريين.
4. تشجيع ألبحث العلمي ورفع كفاءة القدرات البحثية.
5. تفعيل المشاركة والتنسيق والتكامل بين الكلية والمجتمع.
6. اقامة علاقات التبادل العلمي والثقافي والمعرفي مع الجامعات والمنظمات المهنية الأقليمية والعالمية .

4. الاعتماد البرامجي

5. المؤثرات الخارجية الأخرى

6. هيكلية البرنامج				
هيكل البرنامج	عدد المقررات	وحدة دراسية	النسبة المئوية	ملاحظات *
متطلبات المؤسسة				
متطلبات الكلية	1	3.5		مقرر اساسي
متطلبات القسم	1	3.5		مقرر اساسي
التدريب الصيفي	لا يوجد			
أخرى				

* ممكن ان تتضمن الملاحظات فيما اذا كان المقرر أساسي او اختياري .

7. وصف البرنامج				
السنة / المستوى	رمز المقرر أو المساق	اسم المقرر أو المساق	الساعات المعتمدة	
			نظري	عملي
2023-2024 / الثانية	CHMBio-22	الكيمياء السريرية	2(2 عدد الوحدات)	3 (1.5 عدد الوحدات)

8. مخرجات التعلم المتوقعة للبرنامج	
المعرفة	
الطبيب كعالم	سيكون الخريج قادرًا على تطبيق المبادئ العلمية الطبية الحيوية والطريقة والمعرفة المتعلقة بالكيمياء الحيوية في الممارسة الطبية
المهارات	
الطبيب كممارس	استخدام المعلومات بشكل فعال في السياق الطبي
الطبيب كممارس	تنفيذ طريقة العمل لاي قياس بأمان وفعالية
القيم	
سلامة المرضى وضمان الجودة	وضع احتياجات المرضى وسلامتهم في قلب عملية الرعاية، وتعزيز الصحة والسلامة والحفاظ عليها في جميع أماكن الرعاية، والتعرف على كيفية حدوث الأخطاء في الممارسة العملية للتغلب عليها.
القيادة والعمل الجماعي	يجب أن يتعلم ويعمل بفعالية ضمن فريق متعدد المهنيين ومتعدد التخصصات وعبر إعدادات رعاية متعددة.

9. استراتيجيات التعليم والتعلم

1. بيان المحاضرة من خلال عرض الرسالة الرئيسية للموضوع.
2. كتابة اهداف المحاضرة.
3. طرح أهم المواضيع التي تناولتها المحاضرة والمقدمة.
4. تقسيم وقت المحاضرة لتغطي الموضوع الرئيسي والخلاصة والمناقشة

10. طرائق التقييم

- التقييم بالدرجات: الاختبارات اليومية، النصفية والنهائية (وتشمل الاجزاء النظرية والعملية)
- التقييم التكويني من خلال تحليل فهم الطلاب والتعرف على نقاط القوة والضعف في عملية التعلم وبالتالي العمل على المجالات التي تحتاج إلى تحسين؛ ويتم تحقيق ذلك من خلال طرح أسئلة استراتيجية مثل "كيف" و"لماذا" أثناء المحاضرات والجلسات العملية وتعيين الواجبات المنزلية لحل المشكلات السريرية.

11. الهيئة التدريسية

أعضاء هيئة التدريس

الرتبة العلمية	التخصص		المتطلبات/المهارات الخاصة (ان وجدت)	اعداد الهيئة التدريسية	
	عام	خاص		ملاك	محاضر
استاذ أستاذ مساعد مدرس	كيمياء طب وجراحة	كيمياء حياتية سريرية	• شهادة الماجستير او الدكتوراة في (الكيمياء الحياتية السريرية).	4	

التطوير المهني
توجيه أعضاء هيئة التدريس الجدد
من خلال حثهم وتشجيعهم على التواجد في المحاضرات النظرية والعملية لاكتساب الخبرة والمهارة في عملية التعليم والتعلم
التطوير المهني لأعضاء هيئة التدريس
من خلال المساهمة والمشاركة في ورش العمل والدورات والمؤتمرات المحلية والعالمية

12. معيار القبول

13. أهم مصادر المعلومات عن البرنامج
1.Martin Andrew Crook, EIGHT Ed., CLINICAL BIOCHEMISTRY & METABOLIC MEDICINE,2012 2.Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 9th Ed,2010

14. خطة تطوير البرنامج
العمل المستمر على اجراء اجتماعات دورية لاساتدة المقرر الدراسي الواحد مع اساتدة المقررات الدراسية الاخرى ذات الصلة الواحدة بالاخرى للمراحل الدراسية المختلفة الاولى والثانية والخامسة لفرع الكيمياء والكيمياء الحياتية لتطوير وتحديث المقررات الدراسية ذات الصلة وكذلك تحديث المصادر وطرحها للمناقشة في اللجنة العلمية للفرع.

مخطط مهارات البرنامج																	
				مخرجات التعلم المطلوبة من البرنامج													
السنة / المستوى	رمز المقرر	اسم المقرر	اساسي أم اختياري	المعرفة				المهارات				القيم					
				أ1	أ2	أ3	أ4	ب1	ب2	ب3	ب4	ج1	ج2	ج3	ج4		
2023-2024		الكيمياء السريرية	اساسي														

يرجى وضع اشارة في المربعات المقابلة لمخرجات التعلم الفردية من البرنامج الخاضعة للتقييم

نموذج وصف المقرر

1. اسم المقرر:
الكيمياء السريرية
2. رمز المقرر:
CHMBio-22
3. الفصل / السنة:
الفصل الثاني/ 2023-2024
4. تاريخ إعداد هذا الوصف
2024-2-18
5. أشكال الحضور المتاحة :
حضوري + جزء من التقييمات الالكترونية
6. عدد الساعات الدراسية (الكلي)/ عدد الوحدات (الكلي):
75 ساعة (2 نظري + 3 عملي/ اسبوع) 3.5 عدد الوحدات
7. اسم مسؤول المقرر الدراسي (اذا اكثر من اسم يذكر)
الاسم: أ.د. محمد عمران حمزة البريد الالكتروني: moh_alsafi75@nahrainuniv.edu.iq م. د. زينة عبدالاله عبد علي البريد الالكتروني:- zeenaalsedi@colmed.ahrainuniv.edu.iq

8. اهداف المقرر	
في نهاية التدريس سيكون الطالب قادرا على:-	• .... العمل بامان في المختبرات والقدرة على جمع ومعاملة العينات البايولوجية. • .. استخدام االجهزة والادوات المختبرية الضرورية وادامتها.... • ..... الربط بين الامراض والتغيرات الغير طبيعية في مكونات الدم وأجزاء الجسم الاخرى • معرفة وتمييز اصناف الكربوهيدرات واصناف اللبيدات (الشحوم، الدهون، الزيوت) في الغذاء ووظائفها ونسبها المطلوبة في الجسم، والفهم الكامل لدورها في العديد من الامراض. • معرفة وتمييز اصناف البروتينات في الغذاء ووظائفها ونسبها المطلوبة في الجسم، والفهم الكامل لايض البروتينات واضطراباتها ابتداءا من هضمها وامتصاصها والامراض المتعلقة بها وعلاقتها مع امراض النقص الايضي

9. استراتيجيات التعليم والتعلم	
الاستراتيجية	-1استراتيجية التعليم تخطيط المفهوم التعاوني. -2استراتيجية التعليم العصف الذهني. -3استراتيجية التعليم سلسلة الملاحظات

10. بنية المقرر

الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة او الموضوع	طريقة التعلم	طريقة التقييم
1	2ن + 3ع	تمكين واكساب الطالب المعارف: 1.تنظيم مستوى السكر في الدم ,ودراسة دور الهرمونات في موازنة مستوى السكر في الدم 2.انواع السكر في الدم ومعرفة الحالات السريرية وطرق تشخيص انواع مرض السكر 3.دراسة المضاعفات الحادة والمزمنة التي تصاحب مرض السكر 4.التعرف على امراض خزن الكلايكوجين وسبب حدزث كل نوع. 5.دراسة الدهون وانواعها وعلاقة اضطراباتها بالامراض 6.دراسة علاقة مرض السكري بتحلل الدهون وماهية ذلك ودراسة انواع خزن الدهون في الجسم وسبب حدوث كل نوع. 7.دراسة اسباب فقر الدم وانواعه وطرق تشخيصه وعلاجه 8.دراسة الامراض الناجمة عن اضطرابات تفاعلات الاحماض الامينية وعلاقتها في الايض النقصي التي تحدث بعمر مبكر. 9. اكتساب الطالب المهارات العملية في تشخيص ومعرفة الكيمياء الحيوية السريرية والطب المخبري.	1.مقدمة عن مرض السكر وتعريفه ودراسة انواعه. 2.دراسة دور الهرمونات في تنظيم مرض السكر 3.تكوين الاجسام الكيتونية في مرضى السكر ودور الكبد في تخليقها 4.دراسة انواع انخفاض السكر ومعرفة انواع امراض خزن السكر في الدم 5.تعريف الدهون وانواعه في الجسم ودراسة دور الهرمونات في تنظيم الدهون 6.دراسة دور الكبد في ايض الدهون 7.دراسة الاضطرابات الايضية في ايض الدهون ومعرفة انواع اضطرابات الدهون بالاعتماد على قياسات منظمة الصحة العالمية امتحان منتصف القصل 8.معرفات انواع نقص المعقدات الدهينة (البروتينات الدهنية واسبابها) 9.دراسة امراض خزن الدهون وانواعها واسبابها. 10..تعريف البروتينات ومعرفة الامراض المرتبطة بها في حال وجود خلل انزيمي 11.امراض النقص الايضي انواعها وسببها 12.الهيموغلوبين في الدم .انواع فقر الدم وانواع ارتفاع الهيموغلوبين في الدم. 13.البورفيريا سببها وانواعها وطرق تشخيصها 14.الهرمونات .تعريفها	1. بيان المحاضرة من خلال عرض الرسالة الرئيسية للموضوع. كتابة اهداف المحاضرة. طرح أهم المواضيع التي تناولتها المحاضرة والمقدمة. تقسيم وقت المحاضرة لتغطي الموضوع الرئيسي والخلاصة والمناقشة	من خلال اجراء عدد من التقييمات التكوينية والتقييمات الختامية في الجانب النظري والعملي واجراء الندوات وعمل التقارير في الجانب العملي وامتحان منتصف الفصل ونهاية الفصل.
2	2ن + 3ع				
3	2ن + 3ع				
4	2ن + 3ع				
5	2ن + 3ع				
6	2ن + 3ع				
7	2ن + 3ع				
8	2ن + 3ع				
عطلة					
عطلة					
11	2ن + 3ع				
12	2ن + 3ع				
13	2ن + 3ع				
14	2ن + 3ع				
15	2ن + 3ع				

			وانواعها واسباب الخلل في افرازها زيادتها او نقصانها وعلاقة ذلك بالحالات المرضية الصاحبة لها. 15.مناقشة الحالات المرضية الناجمة عن اضطرابات الغدد الصم		

11. تقييم المقرر

توزيع كالتالي: 20 درجة امتحانات نصفية واليومية +10 درجات للعملي (عملي +نتائج + تقرير) + 70 درجة نهائي (50 نظري + 20 عملي)

12. مصادر التعلم والتدريس

الكتب المقررة المطلوبة (المنهجية أن وجدت)	Martin Andrew Crook, EIGHT Ed., CLINICAL BIOCHEMISTRY & METABOLIC MEDICINE,2012 .
المراجع الرئيسة (المصادر)	Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 9th Ed,2010
الكتب والمراجع الساندة التي يوصى بها (المجلات العلمية، التقارير....)	William J. Marshall, S. K. Banger, 6th ed.2008 (Clinical Chemistry) ..
المراجع الإلكترونية ، مواقع الانترنيت	

Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: 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 program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: ….**Al–Nahrain University**……

Faculty/Institute: ….**College of Medicine**……

Scientific Department: .**Chemistry and Biochemistry Department**……

Academic or Professional Program Name: .**Biochemistry 2**……

Final Certificate Name: … **Bachelor of Medicine and Surgery**……

Academic System: … **Bachelor of Medicine and Surgery** ……

Description Preparation Date: **5/10/2023**

File Completion Date: **18/2/2024**

Signature:
Head of Department Name:

Date:

Signature:
Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

To be a leading center of excellence in biochemistry within the College of Medicine at Al-Nahrain University, dedicated to advancing scientific knowledge, fostering innovative research, and producing highly skilled graduates equipped to address the evolving challenges in healthcare and biomedical sciences.

2. Program Mission

The Biochemistry Department at the Al-Nahrain College of Medicine is committed to providing exceptional education, conducting cutting-edge research, and contributing significantly to the medical field. Our mission is to nurture a learning environment that cultivates a deep understanding of biochemistry, fosters critical thinking, and prepares students for impactful careers in medicine, research, and healthcare leadership.

3. Program Objectives

1. To ensure the provision of students with the basic knowledge in clinical biochemistry through an updated curriculum.
2. To equip students with the knowledge and skills necessary for medical practice, research, and advanced studies.
3. To encourage student involvement in research projects, internships, and extracurricular activities.
4. To consolidate professional cooperation in teaching and scientific research at the local and international levels.
5. To design postgraduate studies in the field of medical and clinical biochemistry in a manner that helps students become scholars and specialized researchers in this field.
6. To establish a high-quality research strategy in the field of medical and clinical biochemistry aimed at creating new insights, improving the health condition of community members, and overcoming diseases.

4. Program Accreditation

5. Other external influences

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements				
College Requirements	**1**	**4.5**		Basic course
Department Requirements	**1**	**4.5**		Basic course
Summer Training				
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	**practical**
2023-2024/ 2nd grade	**CHMBio-21**	**Biochemistry 2**	**3**	**3**

8. Expected learning outcomes of the program

Knowledge	
The doctor as a scholar and scientist	The graduate will be able to apply to medical practice biomedical scientific principles, method and knowledge relating to biochemistry
Skills	

The doctor as practitioner	Use information effectively in a medical context
The doctor as practitioner	Carry out practical procedures safely and effectively
Ethics	
Patient safety and quality assurance	Place patients' needs and safety at the center of the care process, promote and maintain health and safety in all care settings, and recognize how errors can happen in practice in order to overcome them.
Leadership and teamwork	Must learn and work effectively within a multi-professional and multi-disciplinary team and across multiple care settings.

9. Teaching and Learning Strategies

1. Explain the lecture by presenting the main message of the topic.
2. Writing the lecture objectives.
3. Presenting the most important topics covered in the lecture and introduction.
4. Divide the lecture time to cover the main topic, conclusion, and discussion.

10. Evaluation methods

By conducting a number of formative assessments and summative assessments in the theoretical and practical aspects, conducting seminars and making reports in the practical aspect, and mid-term and end-of-semester examinations.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor Assistant Professor Lecturer	Biochemistry Medicine & surgery	Clinical Biochemistry			4	

Professional Development
Mentoring new faculty members
By urging and encouraging them to attend theoretical and practical lectures to gain experience and skill in the teaching and learning process.
Professional development of faculty members
By contributing and participating in local and international workshops, courses and conferences

12. Acceptance Criterion

13. The most important sources of information about the program

Lippincott's Illustrated Reviews, 5th Ed., Williams & Wilkins, 2011
Harper's Illustrated Biochemistry, 28th Ed,. McGraw-Hill Companies, Inc, 2009.

14. Program Development Plan

Continuing work to hold periodic meetings for the professors of one course with the professors of other courses related to each other for the various first, second, and fifth academic stages of the Chemistry and Biochemistry branch to develop and update the relevant courses, as well as update the sources and present them for discussion in the branch's scientific committee.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2nd/1st semes	CHMBio-21	Biochemistry II	Basic												

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

1. Course Name:
Biochemistry II
2. Course Code:
CHMBio-21
3. Semester / Year:
1st / 2023-2024
4. Description Preparation Date:
18/2/2024
5. Available Attendance Forms:
Attendance + part of electronic assessments
6. Number of Credit Hours (Total) / Number of Units (Total)
90 hours for semester (45theoretical + 45 practical)/ 4.5 units
7. Course administrator's name (mention all, if more than one name)
Name: Asst Prof Dr. Hassan H. Al-Saeed Email: dr.hasanalsaeed@nahrainuniv.edu.iq Name: Asst Prof Dr. Mohammed Abdulatif Mohammed Ali:- mohammedchina@nahrainuniv.edu Name: Lecturer Dr. Zeena Abdulelah Abd Ali:- zeenaalsedi@colmed.ahrainuniv.edu.iq
8. Course Objectives

Course Objectives	**At the end of the teaching, the student will be able to recognize:** **1- What are life processes, their types, and how to generate energy.** **2- Characteristics of bioenergy, the laws of thermodynami thermodynamic coefficients (free energy of compression, enthalpy, a enthalpy), the importance of energy interactions and mechanics in biolog interactions, the central role of high-energy phosphate molecules in transfer and capture of energy, and the importance of the adenos triphosphate molecule and its central role in the transfer and capture energy.** **3- What is biological oxidation and knowledge of the types of reactions t occur in living cells, the importance of oxidation-reduction reactions, a the types of cofactors and enzymatic aids that play important roles transferring electrons.**

9. Teaching and Learning Strategies

Strategy	1 - Educational strategy, collaborative concept planning. 2- Brainstorming education strategy. 3- Education Strategy Notes Series

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3T + 3P	Empowering and providing the student with knowledge: 1- Knowledge of biochemistry and metabolism of biomolecules and linking them to the body's physiology. 2- Knowing the types chemical reactions th occur in living cells, what bioenergy is, ho to transfer electrons through the respirato chain, oxidative phosphorylation, and the pathological conditions associated with a defect in the transfer of electrons through the respirato chain. 3- Complete knowled of the metabolism of carbohydrates, lipids, proteins, their derivatives, and othe compounds that cont nitrogen through knowing the food molecules, their functions, and their required proportions the body and their metabolism, starting with their digestion, absorption, metabolis (synthesis and breakdown), and 12excretion, and how obtain and calculate	Bioenergetic and biological oxidation	Explain the lecture by presenting the main message of the topic. Writing the lecture objectives. Presenting the most important topics covered in the lecture and introduction. Divide the lecture time to cover the main topic, conclusion, and discussion	By conducting a number of formative assessments and summative assessments in the theoretical and practical aspects, conducting seminars and preparing reports in the practical aspect, and taking the mid-term and end-of-term examinations.
2	3T + 3P		Respiratory chain and oxidative phosphorylation		
3	3T + 3P		Carbohydrates (digestion and absorption)		
4	3T + 3P		Glycolysis, Krebs cycle and gluconeogenesis		
5	3T + 3P		Glycogenesis and glycogenolysis		
6	3T + 3P		Lipid metabolism, digestion and absorption		
7	3T + 3P		Fat oxidation		
8	3T + 3P		Ketone bodies and fat synthesis		
Holiday			Midterm exam		
Holiday			Midterm exam		
11	3T + 3P		Metabolic control of oxidation and synthesis of fats and cholesterol		
12	3T + 3P		Proteins (digestion and absorption)		
13	3T + 3P		proteins degradation and breaks down of		

14 15	3T + 3P 3T + 3P	energy, and the diseas associated with their metabolism, and how deal with them. 4- Knowing the natur of hormones, their receptors, types, mechanisms of action and accompanying diseases resulting fro lack or excess of their secretion. 5- Providing the student with practical skills in diagnosis and knowledge of clinical biochemistry and laboratory medicine.	amino acids Degradation of the carbon skeleton of amino acids Other nitrogen containing compounds		

11. Course Evaluation

Distribution as follows: 20 marks for midterm and daily exams + 10 marks for practical (practical + results + report) + 70 final marks (50 theoretical + 20 practical)

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Liplipincott's Illustrated Reviews, 5th Ed., Willia & Wilkins, 2011
Main references (sources)	Harper's Illustrated Biochemistry, 28th E McGraw-Hill Companies, Inc, 2009
Recommended books and references (scientific journals, reports…)	1. Lehninger Principles of Biochemistry, 4th Ed. 2. Stryer Biochemistry, 5th ed.
Electronic References, Websites	