

*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



Academic program Specification Form

Madenat Alelem University College

Department of Anesthetic Techniques Academic Program Name:

Bachelor of Anesthesia Technology

Name of the Final Degree: Bachelor of Anesthesia Technician

Study System: First and Second Stage (Semester),

Third and Fourth Stage (Annual)

Date this description was prepared: April 1, 2024

Date this form was filled: April 7, 2024

Dean of the college

*Dean's Assistant for Scientific
Affairs and Postgraduate
Studies*

*Head of the
Department*

*Prof.Dr.Faris
abdulkarem khazaal*

Date: 7/4/2024

*Asst.Prof.Dr.Saeed slman
kamoon*

Date: 7/4/2024

*Prof. Dr. Saad Salih
Shahatha*

Date: 7/4/2024

Quality Assurance and College Performance Manger

Khawlah Sadoon Taher

Date: 7/4/2024

Signature:



1. Program Vision

To equip the department with the latest scientific and research technologies, facilitate participation of the department's staff in global scientific conferences, and open postgraduate studies in specialized fields that meet the community's needs.

2. Program Mission

Prepare qualified scientific personnel to be distinguished members of the healthcare team in various hospitals. The department is committed to graduating trained anesthesia technology specialists to assist anesthesiologists in providing safe and high-quality care to surgical patients.

3. Program Objectives

- Graduate scientific personnel specialized in their field.
- Enable students to contribute in resuscitation and interventions as required.
- Teach students the necessary skills for dealing with various anesthesia and intensive care situations.
- Educate students on how to prepare the required drugs and solutions for anesthesia.
- Enable students to gain the knowledge and skills needed to recognize and maintain anesthesia devices.
- Train students in administering anesthesia under the supervision of an anesthesiologist.
- Integrate academic study with practical experience.

4. Program Accreditation

None

5. Other external influences

None

6. Program Structure				
Program Structure	Number of Courses	Study Units	Percentage	Notes
Institutional Requirements	9	18	11%	Essential
College Requirements	8	22	14%	Essential
Departmental Requirements	38	120	75%	Essential
Summer Training	60 days	-	-	Essential
Program Structure	Number of Courses	Study Units	Percentage	Notes

7. Program Specification					
Year/Level	Course Code	Course Name	Theory Hours	Practical Hours	Total Hours
First/1	ATD 1102	Anatomy 1	2	2	4
First/1	ATD 1103	General Physiology 1	2	2	4
First/1	ATD 1104	General Chemistry	2	2	4
First/1	ATD 1101	Medical Physics 1	2	2	4
First/1	MAUC 1105	Biology	2	2	4
First/1	MAUC 1106	Principles of Computing 1	1	2	3
First/1	MAUC 1108	English Language	2	-	2
First/1	MAUC 1107	Rights and Democracy	2	-	2
First/2	ATD 1202	Anatomy 2	2	2	4
First/2	ATD 1203	General Physiology 2	2	2	4
First/2	ATD 1204	Biochemistry	2	4	6
First/2	ATD 1201	Medical Physics 2	2	2	4
First/2	MAUC 1205	Microbiology	2	4	6
First/2	MAUC 1206	Principles of Computing 2	1	2	3
First/2	MAUC 1207	Arabic Language	2	-	2
Second/1	ATD 2101	Basics of Anesthesia 1	2	2	4
Second/1	ATD 2102	Basics of Anesthesia Equipment 1	2	2	4
Second/1	ATD 2105	Basics of Internal Medicine 1	2	2	4
Second/1	ATD 2103	Applied Physiology 1	2	2	4

Second/1	ATD 2104	Basics of Surgery 1	1	2	3
Second/1	ATD 2106	Pharmacology 1	2	2	4
Second/1	MAUC 2107	Medical Terminology	2	-	2
Second/1	MReq. 01	Computing Applications 1	1	2	3
Second/1	MReq. 03	Crimes of the Ba'ath Regime	2	-	2
Second/2	ATD 2201	Basics of Anesthesia 2	2	2	4
Second/2	ATD 2202	Basics of Anesthesia Equipment 2	2	2	4
Second/2	ATD 2205	Basics of Internal Medicine 2	2	2	4
Second/2	ATD 2203	Applied Physiology 2	2	2	4
Second/2	ATD 2204	Basics of Surgery 2	1	2	3
Second/2	ATD 2206	Pharmacology 2	2	2	4
Second/2	MReq. 02	English Language	2	-	2
Second/2	MReq. 01	Computing Applications 2	1	2	3
Second/2	MAUC 2207	Statistics	1	2	3
Second/2	MReq. 04	Arabic Language	2	-	2
Third/Year	ATD 3101	Anesthesia 2	3	5	8
Third/Year	ATD 3102	Intensive Care Techniques 1	2	5	7
Third/Year	ATD 3103	Anesthesia Equipment Techniques 2	2	5	7
Third/Year	ATD 3104	Internal Medicine 2	2	3	5
Third/Year	ATD 3105	Surgery 2	1	3	5
Fourth/Year	ATD 4101	Anesthesia 3	2	4	6
Fourth/Year	ATD 4102	Anesthesia Equipment Techniques 3	2	4	6
Fourth/Year	ATD 4103	Intensive Care Techniques 2	2	4	6
Fourth/Year	ATD 4104	Internal Medicine in Surgery	1	4	5
Fourth/Year	ATD 4105	Nursing	1	4	5
Fourth/Year	ATD 4106	Graduation Project	-	-	-

8. Expected learning outcomes of the program

theory	Outcome Number	Description
Knowledge	1	Understanding of anesthesia principles and applications, including physiological and pharmacological Basics used in healthcare.
	2	Comprehensive knowledge of various anesthesia types and the appropriate methods for preparation and application in each surgical or medical case.
	3	Awareness of emergency medical procedures and ability to recognize the immediate needs of patients in emergency situations.

	4	Familiarity with ethical and legal standards related to the practice of anesthesia and patient care.
Skills	1	Ability to perform accurate clinical assessments of patients before, during, and after surgical procedures to ensure safe and effective anesthesia.
	2	Advanced technical skills in using and maintaining anesthesia equipment and monitoring patients.
	3	Ability to communicate effectively with the healthcare team to ensure coordinated and comprehensive patient care.
	4	Analytical skills to evaluate clinical data and make appropriate therapeutic decisions under pressure.
Values	1	Deep commitment to ethical standards in patient treatment, focusing on humane care and respect for patient dignity.
	2	Respect for cultural and individual diversity, and appreciation for diverse interactions within the healthcare environment.
	3	Development of teamwork and leadership skills in the workplace, encouraging collaborative work and knowledge sharing.
	4	Dedication to continual learning and knowledge updating to keep pace with scientific and technological advancements in the field of anesthesia.

9. Teaching and Learning Strategies

- 1- Brainstorming and model-based learning.
- 2- Teamwork or cooperative learning and discussions.
- 3- Project-based problem-solving or problem-based learning.
- 4- Storytelling and mixed strategy approaches.

10. Evaluation methods

- 1- Weekly, monthly, and daily exams.
- 2- Practical assessments.
- 3- Oral exams.
- 4- Reports and field visits.

11.Faculty

Faculty Members

.	Academic Rank	Name	General Specialization	Special Specialization	Special Requirements/Skills	Staff	Lecturer
1	Professor Doctor	Faris Abdul Kareem Kazaal	Internal Medicine	Diabetes and Endocrinology		Staff	
2	Professor Doctor	Saad Salih Shahatha	General Medicine and Surgery	Pediatrics and Diseases		Staff	
3	Professor Doctor	Hazim Abdul Razaq	Internal Medicine	Diabetes and Endocrinology		Staff	
4	Doctoral Lecturer	Salah Aldeen Abdul Nabi	Internal Medicine	Gastroenterology and Hepatology		Staff	
5	Doctoral Lecturer	Jassim Mohammad Breej	General Surgery	Vascular Surgery		Staff	
6	Doctoral Lecturer	Ahmed Sabah	Iraqi Board of Surgery	Orthopedics and Fractures		Staff	
7	Doctoral Lecturer	Mohannad Abdul Ameer	General Medicine and Surgery	Cardiothoracic and Vascular Surgery		Staff	
8	Doctoral Lecturer	Saif Khalid Sulsul	General Medicine and Surgery	Anesthesia and Intensive Care			Lecturer

9	Doctoral Lecturer	Mohanad athar	General Medicine and Surgery	Anesthesia and Intensive Care			Lecturer
10	Doctoral Lecturer	Amir Ibraheem	General Medicine and Surgery	Anesthesia and Intensive Care			Lecturer
11	Doctoral Lecturer	Marwa Adel	General Medicine and Surgery	Anesthesia and Intensive Care			Lecturer
12	Doctoral Lecturer	Israa Hamid	General Medicine and Surgery	Anesthesia		Staff	
13	Doctoral Lecturer	Ghaith Ahmed	General Surgery	General Surgery and Gastroenterology		Staff	
14	Doctoral Lecturer	Yasir Wisam Issa	Medical Biotechnology	Immunology		Staff	
15	Assistant Lecturer	Lateef Fayadh	Human Physiology	Skin Physiology		Staff	
16	Assistant Lecturer	Samarah Faris	Dentistry and Oral Surgery	Oral Diseases		Staff	
17	High Diploma Doctor	Mohammad Abdul Qader Ahmed	General Medicine and Surgery	General Surgery		Staff	
18	High Diploma Doctor	Ali Deyaa Abood	General Medicine and Surgery	Anesthesia and Intensive Care		Staff	

19	Bachelor	Nagam Fhadel Shati	Finance and Banking	Accounting		Staff	
20	Bachelor	Ammar Wadah	Medical Technology	Anesthesia Techniques		Staff	
21	Bachelor	Kawthar Salih	Medical Technology	Anesthesia Techniques		Staff	
22	Bachelor	Baneen Adel	Medical Technology	Anesthesia Techniques		Staff	

Professional Development

Mentoring new faculty members

- **Mentoring Programs:** Assign a mentor to each new faculty member to help them adapt to the work environment and the university's educational practices.
- **Orientation Sessions:** Organize regular sessions that cover the basics of teaching, classroom management, and assessment strategies.
- **Resource Workshops:** Provide information about available educational resources, including educational technology, libraries, and research centers.

Professional development of faculty members

- **Workshops and Training Courses:** Offer specialized training courses on the latest technologies and innovations in anesthesia and healthcare.
- **Conferences and Seminars:** Encourage attendance and participation in national and international conferences to exchange experiences and learn about new developments.
- **Scientific Research:** Support faculty members in conducting scientific research, publishing research papers, and participating in joint research projects.
- **Performance Evaluation and Feedback:** Implement a system for periodically evaluating teacher performance and providing constructive feedback to improve teaching skills.
- **E-learning Platforms:** Use technology to provide ongoing educational resources and online training courses.
- **Digital Collaboration Tools:** Encourage the use of digital tools to enhance communication among faculty members and facilitate collaboration in research and educational projects.

12. Acceptance Criterion

1. Academic Requirements:

- High School: Applicants must have a high school diploma.
- Grades: Achieve a specific grade point average in high school (above or equal to 70 for morning studies, 65 to 69.9 for evening studies).

2. Entrance Examinations:

- Cognitive Test: A knowledge test in biology and chemistry may be administered to assess students' academic readiness.

- Language Test: If the program's language is not the student's first language, a language test may be required to assess their language skills.

3. Personal and Professional Requirements:

- Personal Interview: Conduct interviews to assess applicants' motivations, interest in the field of anesthesia, and ability to handle job-related stress.
- Physical and Psychological Health: Due to the nature of the work, applicants may be required to undergo medical examinations to ensure they can withstand the physical and psychological demands of the field.

4. Additional Requirements:

- Recommendations: Submit recommendation letters from teachers or professionals who are familiar with the student's capabilities and professional ethics.
- Extracurricular and Voluntary Activities: Consider applicants' experience in voluntary or service activities related to healthcare as an indicator of their commitment and interest in the field.

13. The most important sources of information about the program

1. **Gray's Anatomy for Students"**
2. **"Guyton and Hall Textbook of Medical Physiology"**
3. **"Medical Microbiology" by Murray**
4. **"Miller's Anesthesia"**
5. **"Critical Care Medicine: Principles of Diagnosis and Management in the Adult" by Joseph E. Parrillo**
6. **"Anesthesia Equipment: Principles and Applications" by Jan Ehrenwerth**
7. **"Schwartz's Principles of Surgery"**
8. **"Harrison's Principles of Internal Medicine"**
9. **"Lehninger Principles of Biochemistry" by Nelson and Cox**
10. **"Medical Physics" by John Cameron**

14. Program Development Plan

Year/Level	Course Code	Course Name	Required/Optional	Knowledge			Skills			Values		
First/1	ATD 1102	Anatomy 1	Required	√	√	√	√	√	√	√	√	√
First/1	ATD 1103	General Physiology 1	Required	√	√	√	√	√	√	√	√	√
First/1	ATD 1104	General Chemistry	Required	√	√	√	√	√	√	√	√	√
First/1	ATD 1101	Medical Physics 1	Required	√	√	√	√	√	√	√	√	√
First/1	MAUC 1105	Biology	Required	√	√	√	√	√	√	√	√	√
First/1	MAUC 1106	Principles of Computing 1	Required	√	√	√	√	√	√	√	√	√
First/1	MAUC 1108	English Language	Required	√	√	√	√	√	√	√	√	√
First/1	MAUC 1107	Rights and Democracy	Required	√	√	√	√	√	√	√	√	√
First/2	ATD 1202	Anatomy 2	Required	√	√	√	√	√	√	√	√	√
First/2	ATD 1203	General Physiology 2	Required	√	√	√	√	√	√	√	√	√
First/2	ATD 1204	Biochemistry	Required	√	√	√	√	√	√	√	√	√
First/2	ATD 1201	Medical Physics 2	Required	√	√	√	√	√	√	√	√	√
First/2	MAUC 1205	Microbiology	Required	√	√	√	√	√	√	√	√	√
First/2	MAUC 1206	Principles of Computing 2	Required	√	√	√	√	√	√	√	√	√
First/2	MAUC 1207	Arabic Language	Required	√	√	√	√	√	√	√	√	√
Second/1	ATD 2101	Foundations of Anesthesia 1	Required	√	√	√	√	√	√	√	√	√
Second/1	ATD 2102	Foundations of Anesthesia Equipment 1	Required	√	√	√	√	√	√	√	√	√
Second/1	ATD 2105	Foundations of Internal Medicine 1	Required	√	√	√	√	√	√	√	√	√
Second/1	ATD 2103	Applied Physiology 1	Required	√	√	√	√	√	√	√	√	√
Second/1	ATD 2104	Foundations of Surgery 1	Required	√	√	√	√	√	√	√	√	√

Second/1	ATD 2106	Pharmacology 1	Required	√	√	√	√	√	√	√	√	√
Second/1	MAUC 2107	Medical Terminology	Required	√	√	√	√	√	√	√	√	√
Second/1	MReq. 01	Computing Applications 1	Required	√	√	√	√	√	√	√	√	√
Second/1	MReq. 03	Crimes of the Ba'ath Regime	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2201	Foundations of Anesthesia 2	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2202	Foundations of Anesthesia Equipment 2	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2205	Foundations of Internal Medicine 2	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2203	Applied Physiology 2	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2204	Foundations of Surgery 2	Required	√	√	√	√	√	√	√	√	√
Second/2	ATD 2206	Pharmacology 2	Required	√	√	√	√	√	√	√	√	√
Second/2	MReq. 02	English Language	Required	√	√	√	√	√	√	√	√	√
Second/2	MReq. 01	Computing Applications 2	Required	√	√	√	√	√	√	√	√	√
Second/2	MAUC 2207	Statistics	Required	√	√	√	√	√	√	√	√	√
Second/2	MReq. 04	Arabic Language	Required	√	√	√	√	√	√	√	√	√
Third/Year	ATD 3101	Anesthesia 2	Required	√	√	√	√	√	√	√	√	√
Third/Year	ATD 3102	Intensive Care Techniques 1	Required	√	√	√	√	√	√	√	√	√
Third/Year	ATD 3103	Anesthesia Equipment Techniques 2	Required	√	√	√	√	√	√	√	√	√
Third/Year	ATD 3104	Internal Medicine 2	Required	√	√	√	√	√	√	√	√	√
Third/Year	ATD 3105	Surgery 2	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4101	Anesthesia 3	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4102	Anesthesia Equipment Techniques 3	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4103	Intensive Care Techniques 2	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4104	Internal Medicine in Surgery	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4105	Nursing	Required	√	√	√	√	√	√	√	√	√
Fourth/Year	ATD 4106	Graduation Project	Required	√	√	√	√	√	√	√	√	√

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

Description of the academic program

The First stage

1st semester

2024

**Course Description
Guide
English language**

2024

Course Description Form

1. Course Name:	
English language	
2. Course Code:	
M.Req01	
3. Semester / Year	
(First semester , first Year)	
4. Description Preparation Date:	
9 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(30 Hr. / 2 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Lecturer. Mohammad Ali Ahmed Email: mohamedali976@yahoo.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal //	
<ul style="list-style-type: none">• Teach practical, real life English that is relevant to the students' lives with new topics and themes grounded in today's reality.• Bring unit topics to life with the new unit opener page which include inspiring photographs and accompanying video introductions engage students with the unit topic.• Download and adapt material for your students with the Teacher's Resource Centre which provides all your Headway resources, stored in one place to save you time.• Students can look again at activities from previous lessons, do extra skills practice, and check their progress with instant feedback.	
Specific (Behavioral) goals //	
1.know students with essential information in the English language in association with reading, writing and speaking skills, and knowing more English vocabulary.	

2.To understand pronouns, questions and short answers, tenses (present, past and future), adjective, adverb, prepositions of place, punctuation marks and practicing writing.

3.This module works towards enhancing students' English language competencies along with their technical or professional knowledge.

4.Enhance students' communication skills in English can result in better job opportunities in the future

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	2	Grammar: Types of Pronouns Vocabulary: Everyday objects, Plurals Reading and Writing Skill	Unit 1:	Lecture ask questions Discussion brainstorming	Oral and written Examination
2-	2	Grammar: Pronoun, Questions Vocabulary: Countries, Adjective and Nouns Reading and Writing Skill	Unit 2:	Lecture ask questions Discussion brainstorming	Oral and written Examination
3-	2	Grammar: Negatives, Questions and short answer Vocabulary: Jobs, Personal Information Reading and Writing Skill	Unit 3:	Lecture ask questions Discussion brainstorming	Oral and written Examination
4-	2	Grammar: Possessive adjectives, Possessive 's, common verbs (1): has/have, love, like, work. Vocabulary: The family, The alphabet Reading and Writing Skill	Unit 4:	Lecture ask questions Discussion brainstorming	Oral and written Examination
5-	2	Present Simple, Questions Vocabulary: Sport, Food and Drink, Verb phrase, Languages and nationalities, Adjective + noun. Reading and Writing Skill	Unit 5	Lecture ask questions Discussion brainstorming	Oral and written Examination

6-	2	Grammar: Adverbs of frequency (sometimes, always, never), Questions and Negatives. Vocabulary: The Time, Word that go together Reading and Writing Skill	Unit 6:	Lecture ask questions Discussion brainstorming	Oral and written Examination
7-	2	Grammar: Question words, Pronouns (subject, object, possessive), that and this. Vocabulary: Adjectives Reading and Writing Skill	Unit 7	Lecture ask questions Discussion brainstorming	Oral and written Examination
8-	2		Mid exam		
9-	2	Grammar: There is/There are, Prepositions of place Vocabulary: Rooms and furniture, Place of town Reading and Writing Skill	Unit 8:	Lecture ask questions Discussion brainstorming	Oral and written Examination
10-	2	Grammar: Past Simple Tense - regular verbs Vocabulary: years, have, do, go Reading and Writing Skill	Unit 9:	Lecture ask questions Discussion brainstorming	Oral and written Examination
11-	2	Grammar: Past Simple Tense - irregular verbs, Questions and Negatives, Time expression, ago. Vocabulary: Weekend activities, Sport and leisure Reading and Writing Skill	Unit 10:	Lecture ask questions Discussion brainstorming	Oral and written Examination
12-	2	Grammar: can/can't, Adverbs, Request and offers. Vocabulary: Verb + noun, Adjective + noun, Opposite adjective Reading and Writing Skill	Unit 12:	Lecture ask questions Discussion brainstorming	Oral and written Examination
13-	2	Grammar: Would like, some and any, like and would like Vocabulary: Places and town, In cafe Reading and Writing Skill	Unit 13:	Lecture ask questions Discussion brainstorming	Oral and written Examination
14-	2	Grammar: Present Continuous Tense Vocabulary: Colors, Clothes, Opposite verbs Reading and Writing Skill	Unit 13:	Lecture ask questions Discussion brainstorming	Oral and written Examination
15-	2	Grammar: Future Tense, going to Vocabulary: Forms of transport Reading and Writing Skill	Unit 14	Lecture ask questions Discussion brainstorming	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Report	Monthly Exam	Written Exam	Total
5	5	5	5	20	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	New Headway Plus/ Beginner, John and Liz Soars, Oxford University Press
Recommended books and references (scientific journals, reports...)	Understanding and Using English Grammar, 5th Edition, Betty S. Azar Stacy A. Hagen.
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
General Chemistry**

2024

Course Description Form

1.	Course Name:
	General Chemistry
2.	Course Code:
	ATD1104
3.	Semester / Year
	(First semester , First Year)
4.	Description Preparation Date:
	9 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(60 Hr. / 3 Unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lecture Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com
8.	Course Objectives
As illustrated below	
<p>General goal: Chemical principles related to the human body and biological functions are studied, including their impact on health and disease. Chemical reactions are studied in biological processes like chemical reactions and their effects on health. Chemical engineering studies help develop students' skills in chemical engineering and their applications in medical and biological fields, enhancing health care and medical knowledge</p> <p>Specific (Behavioral) goals:</p> <ol style="list-style-type: none">1. Demonstrate understanding of chemical principles and laws relevant to biological systems.2. Apply knowledge of chemical bonding and molecular structure to explain biological processes.3. Analyze the role of acids, bases, and pH in physiological functions and pathological conditions.4. Interpret chemical reactions involved in metabolism, drug interactions, and physiological responses.5. Apply stoichiometry and quantitative analysis to solve problems related to drug dosages and concentrations.6. Demonstrate proficiency in laboratory techniques relevant to medical chemistry, such as titrations and spectrophotometry.7. Critically evaluate scientific literature and research findings related to medical chemistry topics.8. Communicate effectively about chemical concepts and their relevance to medical practice.	
9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy

	A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	4	Understanding lecture	Introduction to General Chemistry	Laboratory Safety and Basic Techniques	Lecture + Lab	Quick exam, Spot, Oral
2nd	4	Understanding lecture	Scope of Biochemistry in Health	Practical: Identifying Biomolecules	Lecture + Lab	Quick exam, Spot, Oral
3rd	4	Understanding lecture	Acid-Base Balance	Titration Experiments to Understand pH and Acidity	Lecture + Lab	Quick exam, Spot, Oral
4th	4	Understanding lecture	Buffer and Buffer System	Preparation and Testing of Buffer Solutions	Lecture + Lab	Quick exam, Spot, Oral
5th	4	Understanding lecture	Blood Constituents	Examination of Blood Components under Microscope	Lecture + Lab	Quick exam, Spot, Oral
6th	4	Understanding lecture	Water and Electrolytes	Measuring Electrolyte Levels in Various Solutions	Lecture + Lab	Quick exam, Spot, Oral
7th	4	Understanding lecture	Carbohydrate Classification	Testing for Different Types of Carbohydrates	Lecture + Lab	Quick exam, Spot, Oral
8th	4	Mid-Term Review & Practical Skills Assessment				Quick exam, Spot, Oral
9th	4	Understanding lecture	Carbohydrate Metabolism	Experiments on Carbohydrate Metabolism and Energy Production	Lecture + Lab	Quick exam, Spot, Oral
10th	4	Understanding lecture	Glucose Abnormality	Glucose Tolerance Tests and Analyzing Results	Lecture + Lab	Quick exam, Spot, Oral
11th	4	Understanding lecture	Integration of Metabolism	Practical: Investigating Metabolic Pathways	Lecture + Lab	Quick exam, Spot, Oral
12th	4	Understanding lecture	Enzymes and Their Role in Metabolism	Enzyme Activity Assays	Lecture + Lab	Quick exam, Spot, Oral
13th	4	Understanding lecture	Hormonal Regulation of Metabolism	Experiments on Hormone Effects on	Lecture + Lab	Quick exam,

				Metabolism		Spot, Oral
14th	4	Understanding lecture	Nutritional Biochemistry	Analysis of Nutrient Content in Food	Lecture + Lab	Quick exam, Spot, Oral
15 th	4	Final Review and Integration		Final Practical Assessment		
11.						
	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.					
Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)			Nothing			
Main references (sources)			<ol style="list-style-type: none"> Lehninger Principles of Biochemistry, 7th Edition, by David L. Nelson and Michael M. Cox, 2017. Biochemistry, 8th Edition, by Jeremy M. Berg, John L. Tymoczko, and Lubert Stryer, 2015. Biochemistry, 5th Edition, by Donald Voet and Judith G. Voet, 2020. Molecular Biology of the Cell, 6th Edition, by Bruce Alberts, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, and Peter Walter, 2014. Principles of Biochemistry, 7th Edition, by Albert L. Lehninger, David L. Nelson, and Michael M. Cox, 2017. 			
Recommended books and references (scientific journals, reports...)			journal of Biological Chemistry (JBC) Biochemical Journal Trends in Biochemical Sciences (TiBS) Nature Reviews Molecular Cell Biology Nature Science NCBI			
Electronic References, Websites			Browse the Google network using the desired subject key.			

**Course Description
Guide
Biology**

2024

Course Description Form

1.	Course Name:
	Biology
2.	Course Code:
	MAUC1105
3.	Semester / Year
	(First semester , First Year)
4.	Description Preparation Date:
	8 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(60 Hr. / 3 Unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lectuer Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com
8.	Course Objectives
As illustrated below	
<p>General goal: understand the biological and cellular foundations of life, the records of disease, the impact of electronic genetics on health, and how humans innovate. This knowledge helps develop new treatments, improve public health, and raise awareness of the importance of ecosystems and biodiversity.</p> <p>Specific (Behavioral) goals:</p> <ol style="list-style-type: none"> 1- By the end of the course, the student will be able to elucidate the functional structure of biological systems in the human body. 2- By the end of the course, the student will be able to analyze the biochemical processes associated with human diseases. 3- By the end of the course, the student will be able to understand the role of genes and heredity in determining health and disease. 4- By the end of the course, the student will be able to assess the impact of environmental and lifestyle factors on human health. 5- By the end of the course, the student will be able to utilize biological knowledge in developing diagnostic and therapeutic strategies. 	
9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies

10. Course Structure						
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1 --2	4	Understanding lecture	Introduction to biology, the cells, prokaryotic and eukaryotic cells, animal and plant cell	The microscope, components and types	Lecture+ lab	Quick exam, Spot, Oral
3--4	4	Understanding lecture	The Structure of cells , types , shape and size	The Structure of cells , types , shape and size	Lecture+ lab	Quick exam, Spot, Oral
5--6	4	Understanding lecture	Movement in and out of cells: diffusion , osmosis , active transport.	Movement in and out of cells: diffusion , osmosis , active transport.	Lecture+ lab	Quick exam, Spot, Oral
7--8	4	Understanding lecture	Cell division: Amitosis, Mitosis and Meiosis	Cell division: Amitosis, Mitosis and Meiosis	Lecture+ lab	Quick exam, Spot, Oral
9--10	4	Understanding lecture	Nucleic acid: DNA and RNA, DNA Replication	Nucleic acid: DNA and RNA, DNA Replication	Lecture+ lab	Quick exam, Spot, Oral
11	4	Understanding lecture	Protein biosynthesis	Protein biosynthesis	Lecture+ lab	Quick exam, Spot, Oral
12--13	4	Understanding lecture	Human body tissues: Epithelial tissues	Human body tissues: Epithelial tissues	Lecture+ lab	Quick exam, Spot, Oral
13	4	Understanding lecture	Muscular and Nervous tissues	Muscular and Nervous tissues	Lecture+ lab	Quick exam, Spot, Oral
14	4	Understanding lecture	Connective tissues: Bone and cartilage	Connective tissues: Bone and cartilage	Lecture+ lab	Quick exam, Spot, Oral
15	4	Understanding lecture	Blood (R.B.C and WBC) and lymph	Blood (R.B.C and WBC) and lymph	Lecture+ lab	Quick exam, Spot, Oral
11.						
	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.					
Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					

Required textbooks (curricular books)	Nothing
Main references (sources)	<ol style="list-style-type: none"> 1. "Medical Biology" by Gordon, MacLean; 2019. 2. "Essentials of Medical Genetics for Health Professionals" by Gunder McClary, Scott; 2020. 3. "Human Molecular Genetics" by Strachan, Read; 2019. 4. "Principles of Tissue Engineering" by Lanza, Langer, Vacanti; 2020. 5. "Molecular Biology of Cancer: Mechanisms, Targets, and Therapeutics" by Pecorino, Lauren; 2021.
Recommended books and references (scientific journals, reports...)	Nature Reviews Molecular Cell Biology Nature Science NCBI
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Medical Physical**

2024

Course Description Form

1.	Course Name:					
	Medical Physics					
2.	Course Code:					
3.	Semester / Year					
	(Second semester , First Year)					
4.	Description Preparation Date:					
	14 /4 /2024					
5.	Available Attendance Forms:					
	Weekly attendance					
6.	Number of Credit Hours (Total) / Number of Units (Total)					
	(90 Hr. / 6 Unit)					
7.	Course administrator's name (mention all, if more than one name)					
	Name: Lectuer Dr. Hiba Rashid Shakir Email: dr.hiba.r@mauc.edu.iq					
8.	Course Objectives					
	As illustrated below					
	<p>General goal: At the end of the academic year, the student will be able to: Identifying the physical phenomena of the five chapters that are dealt with by experience and linking them to what the student needs from the medical phenomena that appear during his practical life.</p>					
9.	Teaching and Learning Strategies					
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	Total Hours	ILOs	Theoretical Subjects	practical Subjects	Teaching Method	Assessment Method
1--2	6	Understanding lecture	Physics of cardiovascular system. Introduction to Biosafety and Security <ul style="list-style-type: none"> • Key components of Biorisk Management • Components of safety in all laboratories Universal safety precautions	Physics of cardiovascular system.	Lecture + Lab	Quick exam, Spot, Oral
3--4	6	Understanding	Laser in medicine. Biosafety barriers in	Laser in medicine.	Lecture + Lab	Quick exam,

		lecture	laboratories • Personal protective equipment(PPE) Facility Design			Spot, Oral
5--7	6	Understanding lecture	Electricity within the body. Biosafety level • Risk Assessment Strategy • Hazard groups, biosafety levels, practices and equipment Standard practices required in biology laboratories	Electricity within the body.	Lecture + Lab	Quick exam, Spot, Oral
8--9	6	Understanding lecture	Application of electricity and magnetism in medicine. Biological Agents • Routs of infection • Basis for control Measures • Hazard group classification system A Biosafety cabinet (BSC	Application of electricity and magnetism in medicine.	Lecture + Lab	Quick exam, Spot, Oral
10	6	Mid-Term Review & Practical Skills Assessment				Quick exam, Spot, Oral
11-13	6	Understanding lecture	Light in medicine, sound in medicine. Biorisk and biohazards • Control of substances hazardous to health • Assessing risk for work with human blood and tissues hazards Control measures for work with human blood and tissue • Containment level	Light in medicine, sound in medicine.	Lecture + Lab	Quick exam, Spot, Oral
14--15	6	Understanding lecture	Physics of nuclear medicine, radiotherapy, radiation protection.	Physics of nuclear medicine, radiotherapy, radiation protection.	Lecture + Lab	Quick exam, Spot, Oral

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.

Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40
11.	Learning and Teaching Resources					
Required textbooks (curricular books)	Nothing					
Main references (sources)	<ol style="list-style-type: none"> 1. Irving P. Herman 2. Physics of the Human Body 3. Electronic Library. 					
Recommended books and references (scientific journals, reports...)	Relevant graduation project, scientific journals and periodicals related to the subject, medical design reports					
Electronic References, Websites	Browse the Google network using the desired subject key.					

Course Description Guide

Computer principles 1

2024

Course Description Form

1.	Course Name:					
		Computer principles 1				
2.	Course Code:					
		MAUC1106				
3.	Semester / Year					
		1st semester , First Year)				
4.	Description Preparation Date:					
		9 /4 /2024				
5.	Available Attendance Forms:					
		Weekly attendance				
6.	Number of Credit Hours (Total) / Number of Units (Total)					
		(45 H/ 2 UNIT)				
7.	Course administrator's name (mention all, if more than one name)					
		Name: Lecture Dr. Ghada salim mohammed Email: gghaa2090@mauc.edu.iq				
8.	Course Objectives	As illustrated below				
		<p>General goal //</p> <p>At the end of the course, the student will be able to employ computer skills and office programs in the fields of specialization</p> <p>Behavioral goals //</p> <p>1- At the end of the course, the student will be able to recognize the most important principles and basic pillars of the computer.</p> <p>2- At the end of the course, the student will be able to distinguish between different operating system tools</p> <p>3- At the end of the course, the student will be able to determine the type of applied software he needs according to the type of problem</p> <p>4- At the end of the course, the student will be able to design and implement files</p> <p>5- At the end of the course, the student will be able to distinguish between hardware and software components</p>				
9.	Teaching and Learning Strategies					
	Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies				
10.	Course Structure					
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	3	Understanding lecture	Operating system OS' s: (what is an OS' s and what it can do, types of OS' s, their features importance); Windows OS' s (95, 97, 2000, Me, Xp, Vista, 7, 8, 8.1 and 10) and their characteristics; Explain the differences between OS' s and software application; computer power On/Off; Using Mouse and their buttons	Display OS' s basic, on/ shutdown computer, log off, log on, restart, sleep, using mouse (pointing, selecting, dragging and execution)	Lecture + Lab	Quick exam, Spot, Oral
2nd	3	Understanding lecture	Looking at the Desktop; Navigation around desktop; Using Start Button; Working with Applications ; Using Taskbar; Understanding Software and Hardware (their difference, importance and relationships); Explain how hardware can influence the OS and software and Vice Versa ; soft ware updates, security and bugs; Software Ethics	Using desktop, moving around the desktop and using the main application icons, using start button; application programs (install, open, close and uninstall)	Lecture + Lab	Quick exam, Spot, Oral
3rd	3	Understanding lecture	Files &Folders: Looking at typical Window; Moving and sizing Window; Using scroll Bars; Understanding and using my computer and recycle bin; concepts of drives, folders and files (differences and importance); Directory and folder hierarchy and structure; understanding file name and common extensions.	Looking at window details (Title bar, Tools bar, Address Bar, status bar and Windows' s content); Expand and collapse and close Window; moving and resizing window.	Lecture + Lab	Quick exam, Spot, Oral
4th	3	Understanding lecture	Folder and files managements (create, copy, cut, delete, rename, find and move); common keyboard shortcuts undelete folder and files using recycle bin; Display the differences between uninstall and undelete or delete	Working with drive, folders and files using the listed operation; using common shortcuts (Ctrl+ C+;V+;+A;+S..... ect); Restore folders or files.	Lecture + Lab	Quick exam, Spot, Oral
5th	3	Understanding lecture	Computer Hardware: identifying computers (Main frame; super computers: Mini computers; Desktop;	Identify the hardware and explain the different types of compute using illustrations of what	Lecture + Lab	Quick exam, Spot, Oral

			Notebooks; Laptop; Tablet PCs; Servers; Hand-held or Mobile computers; Music or Media players and Electronic Book readers).	provided by internet.			
6th	3	Understanding lecture	Looking inside a computer (microprocessor, system memory, storage system); Recognizing input / output devices (using keyboard; pointing devices; Microphones; Monitor; printers; projector and speakers); understanding How it works together	Explain Microprocessor Chip, types of memory (RAM, ROM and SSD drive), memory units of measurements, storage keyboard; mouse; printers and other peripherals; identifying motherboard and their part; how to connect computer resources.	Lecture + Lab	Quick exam, Spot, Oral	
7th	3	Understanding lecture	Using control panel: customizing desktop and display; changing date and time changing language; accessibility settings. Understanding power options (shut down, sleep, Hibernate); working with power settings; identifying mode of operation (safe mode and normal mode); understanding user accounts and rights (create new user account; changing controls; rights and access).	Identifying the control panel icon, changing desktop icon; wallpaper; display type and size setup time and data, using language options using accessibility. Power off computer using different options; understanding the mode of operation: Create User Account; Log Off; Log On; Changing Accounts.	Lecture + Lab	Quick exam, Spot, Oral	
8th		Mid-Term Review & Practical Skills Assessment					Quick exam, Spot, Oral
9th	3	Understanding lecture	Understanding the application software; Types and their usage; How install and uninstall programs and display their differences from delete; Update or reinstall the software.	What is a Software (checking system requirements & Hardware implications) ; Application software (Integrated suites, Desktop Publishing , spreadsheets, database management, presentations, art engineering mathematic, statistics , medical, management , content creation, multimedia, entertainment and system protection); managing software (install new one, uninstall, reinstall and updating software.	Lecture + Lab	Quick exam, Spot, Oral	
10th	3	Understanding lecture	Delete systematically unnecessary files, scandisk, defragment disk, compress disk; understand the most common troubleshooting of computer or software; copy files or disk; using antiviruses; getting help for windows; getting online help.	Disk management programs (Disk clean-up, Check, optimize and compression) ; what is Troubleshooting?; managing hardware/software; keep copies of data dealing with viruses, malware and Trojans; Getting windows help and support.	Lecture + Lab	Quick exam, Spot, Oral	
11th	3	Understanding lecture	Starting each program & identify the main screen in details as little bar, main ribbon and their tools, formula bar in excel, windows content, status bar Ect.	Part 2 : Key Applications (Office 2013 Or 2010)	Lecture + Lab	Quick exam, Spot, Oral	
12th	3	Understanding lecture	Writing text with some wrong words and different formatting types to perform the task of this lesson.	What is key applications? What it can do?: Getting started (start & exit program), looking at the main screen (for word, excel & power point), Accessing commands and characteristic features, understanding ribbon, tabs; status bar, scroll bar. Create files form templates, How to get help, Manipulating files and data exchange.	Lecture + Lab	Quick exam, Spot, Oral	
13th	3	Understanding lecture	Indent text by hanging the first line or hanging the main paragraph body, line space types, find and replace text, find and replace using formatted text, add background or watermark, add different styles for word and pages	Microsoft Word: Entering and Editing Text (using editing keys), Writing in Arabic and English, changing orientation, using ruler, move around the document selecting text (word, Line, paragraph, pages & all pages), save - close; open Document , Customizing View, Edit Text using (redo, undo, cut, copy & paste), formatting text using font command, paint brush and Alignment types, spell Check and correction	Lecture + Lab	Quick exam, Spot, Oral	
14th	3	Understanding lecture	Insert page number and / or images, clipart, excel sheet, create tables, change column size, adding row, formatting tables.	Understanding tab settings , working with indents with indents, organizing list, working with paragraphs, change line space, set paragraph space, working with styles & using quick styles, finding and replacing items, document formatting, page background and watermark, learn how write Arabic in English direction and write English word in Arabic direction.	Lecture + Lab	Quick exam, Spot, Oral	
15th	3		Understanding the application software; Types and their usage; How install and uninstall programs and display their differences from delete; Update or reinstall the software.	Page setup (change paper size, orientation, margins), insert page breaks, adding page number or titles, applying columns and how to use it, preview and print document, using multimedia files (insert images, objects) and manipulating them, using table (create new one, insert excel table, selecting items in the table) and formatting tables.			

11.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40

12. Learning and Teaching Resources

Required textbooks (curricular books)	Nothing
Main references (sources)	Computer Skills and Applications
Recommended books and references (scientific)	1-Computer Literacy BASICS: A Comprehensive Guide

journals, reports...)	to IC3 2-IC3: Internet and Computing Printed Book
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
General Physiology1**

2024

Course Description Form

1. Course Name:	
General Physiology 1	
2. Course Code:	
ATD1103	
3. Semester / Year	
(First Semester, First Year)	
4. Description Preparation Date:	
13 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Latief Fayyadh Email: lat.hassi57@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below.
General goal // At the end of the academic year, the student will be able to understand the functions of the various cells and organs of the body and perform the various techniques of blood and other bodily fluid analyzes.	
9. Teaching and Learning project strategy	
Strategies	<ul style="list-style-type: none">• Brainstorming strategy• Modeling learning strategy• Group work or cooperative learning strategy• Discussion strategy• Project strategy• A strategy for problem solving or problem-based learning• Story strategy.• Combining different strategies

10. Course Structure

Week	Total Hours	ILOs	Theoretical Subjects	practical Subjects	Teaching Method	Assessment Method
1st	4	Understanding lecture	Definition of physiology; cell physiology; cell membrane components and structure.	The microscope, type, parts, how to use it.	Lecture + Lab	Quick exam, Spot, Oral
2nd	4	Understanding lecture	Movement of fluid, solutes and gases across the cell membrane.	Hematology, collection of blood, capillary blood; venous blood; plasma and serum.	Lecture + Lab	Quick exam, Spot, Oral
3rd	4	Understanding lecture	Muscular system: types & characteristics.	Hemoglobin estimation by Cyanamithaemoglobin method (Photometer method).	Lecture + Lab	Quick exam, Spot, Oral
4th	4	Understanding lecture	Contraction mechanism, fatigue, muscular pain	Hemoglobin estimation by acid hematin method.	Lecture + Lab	Quick exam, Spot, Oral
5th	4	Understanding lecture	Types of nerve cells, functions of nerve impulse, synapses and reflexes	Packed cell volume (P.C.V).	Lecture + Lab	Quick exam, Spot, Oral
6th	4	Understanding lecture	Action potential of nerve and muscle fiber.	Red blood cells count.	Lecture + Lab	Quick exam, Spot, Oral

7th	4	Understanding lecture	Blood; functions, component, plasma and serum	Total leukocyte count.	Lecture + Lab	Quick exam, Spot, Oral
8th	4	Understanding lecture	Red blood cells, shape, origin, Hb structure and Anemia	Reticulocyte count test	Lecture + Lab	Quick exam, Spot, Oral
9th	4	Understanding lecture	W.B. Cs, platelets; functions, origin, structure	Normal blood standard	Lecture + Lab	Quick exam, Spot, Oral
10th	4	Understanding lecture	Blood clotting mechanism	Blood smear; staining.	Lecture + Lab	Quick exam, Spot, Oral
11th	4	Understanding lecture	Cardiovascular system, heart valve cycle, HR conductive system.	Differential leukocyte count (types of W.B.C.).	Lecture + Lab	Quick exam, Spot, Oral
12th	4	Understanding lecture	Heart sounds and murmurs, ECG	Study of morphology of red blood cell.	Lecture + Lab	Quick exam, Spot, Oral
13th	4	Understanding lecture	Blood pressure	Scientific movies show of blood	Lecture + Lab	Quick exam, Spot, Oral
14th	4	Understanding lecture	Respiratory system, Pleura, Types of mechanism of respiration.	Erythrocyte sedimentation rate by Westergren method.	Lecture + Lab	Quick exam, Spot, Oral
15th	4	Understanding lecture	Oxygen Transporting and exchange	E.S.R. by wintrod method.	Lecture + Lab	Quick exam, Spot, Oral

9. 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.

Daily Preparation	Daily Exam	practical Exam	Monthly Exam	Written Exam	Total
5	5	15	25	50	100
10. Learning and Teaching Resources					
Required textbooks (curricular books, if any)	Nothing				
Main references (sources)	1. Guyton and Hall textbook of medical physiology. 2. Basic physiology for anesthetists by David Chambers and Gareth Mathews 3. Fundamentals of Anatomy and Physiology for nursing and healthcare students by Jan Peate, 2nd Edition				
Recommended books and references (scientific journals, reports...)	Relevant graduation projects, scientific journals and periodicals related to the subject, Medical Design reports.				
Electronic References, Websites	Browse the Google network using the desired subject key.				

Course Description Guide Anatomy 1

2024

Course Description Form

1. Course Name:	
Anatomy 1	
2. Course Code:	
ATD1102	
3. Semester / Year	
(First semester , First Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Lectuerer Dr. Jassim mohammad breej	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal //	
<p>The general objective of studying anatomy is to understand the detailed structure of the human body, and how various organs and systems interact with each other to perform vital functions. This understanding helps students and professionals in medical and health fields to improve their ability to diagnose diseases and manage treatments effectively.</p>	
Specific (Behavioral) goals //	
<ol style="list-style-type: none">1. Identification of Structure: Enable students to identify and describe the major organs and systems in the human body.2. Understanding and Analysis: Develop students' ability to analyze how different systems within the body interact.3. Practical Application: Enhance students' skills in applying their anatomical knowledge in real-life scenarios and clinical situations.4. Evaluation: Empower students to evaluate and interpret medical conditions based on their understanding of anatomy.5. Communication: Improve students' ability to effectively communicate with peers and patients about topics related to anatomy.	

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Theoretical	Practical	Learning method	Evaluation method
1-	4	Understanding and assimilation	Introduction, Anatomical terms.	Anatomical terms.	Brainstorming strategy	Oral and written Examination
2-	4	Understanding and assimilation	Body cavities and its organs.	Cell and tissues.	Teamwork strategy.	Oral and written Examination
3-	4	Understanding and assimilation	Superficial anatomy of human body.	Bones-types, joints.	Project strategy	Oral and written Examination
4-	4	Understanding and assimilation	Human body tissues; types and characteristics.	Skin.	Discussion strategy	Oral and written Examination
5-	4	Understanding and assimilation	Skin anatomy and its functions skin color.	Skeletal system – skull and vertebral column.	Story strategy	Oral and written Examination
6-	4	Understanding and assimilation	General skeletal structure (Skull, and neck).	Peripheral skeletal system.	Problem solving strategy	Oral and written Examination
7-	4	Understanding and assimilation	Vertebral column structure, numbers and its function.	Muscular system – abdominal wall diaphragm.	Modeling learning strategy	Oral and written Examination
8-	4	Understanding and assimilation	Diaphragm and abdominal wall muscles.	Intercostals mm, skeletal mm.	Teamwork strategy.	Oral and written Examination
9-	4	Understanding and assimilation	Anatomy of heart, wall, valve and its function	Heart – great vessels.	Combining different strategies	Oral and written Examination
10-	4	Understanding and assimilation	Structure of blood vessels wall	Circulatory system – arteries.	Combining different strategies	Oral and written Examination

			arteries, veins and capillaries.			
11-	4	Understanding and assimilation	Lymphatic system – lymph glands.	Circulatory system-veins	Combining different strategies	Oral and written Examination
12-	4	Understanding and assimilation	Respiratory system – upper respiratory tract.	Lymphatic system – lymph glands.	Teamwork strategy.	Oral and written Examination
13-	4	Understanding and assimilation	Respiratory system-lower respiratory tract.	Respiratory system-upper respiratory tract.	Project strategy	Oral and written Examination
14-	4	Understanding and assimilation	Alveoli-lungs-pleural activity.	Respiratory system-lower respiratory tract.	Combining different strategies	Oral and written Examination
15-	4	Understanding and assimilation	Upper and lower limb	Lung – pleura – functions.	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	practical	Monthly Exam	Final	Total
5	5	5	15	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	"Gray's Anatomy: The Anatomical Basis of Clinical Practice" - Often considered the gold standard for anatomy references, this book offers detailed information on human anatomy and is widely used by healthcare professionals and students. "Clinically Oriented Anatomy" by Keith L. Moore, Arthur F. Dalley, and Anne M.R. Agur - This textbook is popular among medical students because it links anatomy to clinical practice. "Atlas of Human Anatomy" by Frank H. Netter - Known for its detailed and colorful

anatomical drawings, this atlas is a favorite among students for understanding the complex details of human anatomy.

Online Resources:

Kenhub - Offers a wide range of learning tools including online atlases, articles, videos, and quizzes focused on anatomy.

AnatomyZone - Provides free 3D tutorials on anatomy, making it a valuable resource for visual learners.

Visible Body - Features highly detailed, anatomically accurate 3D models of the human body which are useful for both teaching and learning purposes.

Journals:

"Clinical Anatomy" - A peer-reviewed journal that publishes articles on the clinical aspects of anatomy, which is helpful for those looking to understand the practical application of anatomical knowledge.

"American Journal of Anatomy" - Covers a wide range of topics within anatomy and related disciplines and is useful for academic and clinical research.

Professional Associations and Societies:

American Association of Anatomists (AAA) - Provides resources, professional development opportunities, and research updates for professionals in the field of anatomy.

British Association of Clinical Anatomists (BACA) - Offers conferences and journals that help practitioners and educators

	<p>stay updated on the latest developments in clinical anatomy.</p>
<p>Recommended books and references (scientific journals, reports...)</p>	<p>Online Resources</p> <ol style="list-style-type: none"> 1. Kenhub <ul style="list-style-type: none"> • Features: Offers comprehensive anatomy learning modules, quizzes, and high-quality illustrations and videos. 2. Visible Body <ul style="list-style-type: none"> • Features: A suite of apps that provide highly detailed 3D models and animations that demonstrate anatomical structures and functions. <p>Scientific Journals</p> <ol style="list-style-type: none"> 1. "Clinical Anatomy" <ul style="list-style-type: none"> • Published by: Wiley-Liss • Features: Focuses on anatomy as it relates to the practice of medicine, dentistry, and physical therapy. 2. "Journal of Anatomy" <ul style="list-style-type: none"> • Published by: Wiley-Blackwell on behalf of the Anatomical Society • Features: One of the oldest and most respected anatomy journals, publishing original research on all aspects of structural biology. <p>Reports and Other References</p> <ol style="list-style-type: none"> 1. "The Anatomical Record" <ul style="list-style-type: none"> • Features: This journal provides new insights into the functional impact of anatomical structure and the developmental origins of anatomical variation. 2. "American Journal of Physical Anthropology" <ul style="list-style-type: none"> • Features: Publishes articles and reports on the anatomy of living and fossil hominids, contributing to the

	understanding of human and primate evolution.
Electronic References, Websites	Browse the Google network using the desired subject key.

Course Description Guide Processes Design

2024

Course Description Form

1. Course Name:	
Processes Design	
2. Course Code:	
MAUC1107	
3. Semester / Year	
(First semester , 1 st Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(30 Hr. / 2 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant. Lecturer. Abula Rahman Mohammad	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general objective of studying Law and Democracy is to provide students with an in-depth understanding of the legal foundations and democratic principles that govern societies. The course aims to equip students with the knowledge needed to critically analyze and engage with issues related to governance, civil rights, and the role of institutions in maintaining democratic systems. Students will explore the evolution of democracy, the function of laws in democratic societies, and the challenges facing modern democracies, thereby preparing them for careers in law, politics, public administration, and related fields.	
Specific (Behavioral) goals // 1. Identify and Describe: Students will be able to identify and describe key legal concepts and democratic principles that govern societies. 2. Analyze and Evaluate: Students will develop the ability to analyze and evaluate the effectiveness of different democratic	

institutions and legal systems.

3. **Critical Thinking:** Enhance students' critical thinking skills to assess the impact of law and democracy on social issues.
4. **Communication Skills:** Improve students' ability to articulate and debate issues related to law and democracy both orally and in writing.
5. **Practical Application:** Students will learn how to apply democratic principles and legal knowledge in practical, real-world scenarios.
6. **Ethical Reasoning:** Cultivate an understanding of ethical considerations in law and governance, encouraging students to consider the broader implications of legal decisions on society.

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	2	Understanding and assimilation	Introduction to Law and Democracy	Brainstorming strategy	Oral and written Examination
2-	2	Understanding and assimilation	History of Democracy	Teamwork strategy.	Oral and written Examination
3-	2	Understanding and assimilation	Legal Foundations of Democracy	Project strategy	Oral and written Examination
4-	2	Understanding and assimilation	Institutions of Democracy	Discussion strategy	Oral and written Examination
5-	2	Understanding and assimilation	Elections and Voting Systems	Story strategy	Oral and written Examination
6-	2	Understanding and assimilation	Political Parties and Democracy	Problem solving strategy	Oral and written Examination
7-	2	Understanding and assimilation	Civil and Political Rights	Modeling learning strategy	Oral and written Examination
8-	2	Understanding and assimilation	Minority Rights and Democracy	Teamwork strategy.	Oral and written Examination
9-	2	Understanding and assimilation	Media and Democracy	Combining different strategies	Oral and written Examination
10-	2	Understanding and assimilation	Contemporary Challenges to Democracy	Combining different strategies	Oral and written Examination
11-	2	Understanding and assimilation	Digital Democracy	Combining different strategies	Oral and written Examination
12-	2	Understanding	Civic Engagement and	Teamwork strategy.	Oral and written

		and assimilation	Democracy		Examination
13-	2	Understanding and assimilation	Democracy and Development	Project strategy	Oral and written Examination
14-	2	Understanding and assimilation	Transitional Democracies	Combining different strategies	Oral and written Examination
15-	2	Understanding and assimilation	Review and Open Discussion	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Report	Monthly Exam	Written Exam	Total
5	5	5	5	10	70	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	<p>"Democracy in Theory and Practice" - This book reviews the evolution of democracy and how it is implemented across different nations.</p> <p>"The Rule of Law" by Tom Bingham - A definitive guide on the importance of the rule of law in democratic societies.</p> <p>"Political Order and Political Decay" by Francis Fukuyama - Explores the origins and effects of political order and how it can decay in democratic societies.</p> <p>Journal of Democracy - A scholarly journal that provides comprehensive coverage of challenges and opportunities facing democracy globally.</p> <p>"On Democracy" by Robert Dahl - A concise and approachable text that examines the principles and practices of democracy.</p> <p>"How Democracies Die" by Steven Levitsky and Daniel Ziblatt - A contemporary analysis of how democracies fail and how to</p>

	prevent democratic backsliding.
Recommended books and references (scientific journals, reports...)	<p>"The Spirit of Democratic Capitalism" by Michael Novak - This book ties economic and political freedoms together under the umbrella of democratic capitalism.</p> <p>"Why Nations Fail" by Daron Acemoglu and James Robinson - Explores how different political and economic institutions affect prosperity and democracy.</p> <p>"Making Democracy Work: Civic Traditions in Modern Italy" by Robert D. Putnam - A classic study of regional governments in Italy and their efficacy, which introduces the concept of social capital in democracies.</p> <p>Harvard Law Review - This journal provides advanced discussions on law that can deepen understanding of legal principles in democratic contexts.</p> <p>Annual Review of Political Science - Offers comprehensive reviews of significant developments in the field of political science, including democracy studies.</p>
Electronic References, Websites	Browse the Google network using the desired subject key.

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

***Description of the academic
program
The First stage
2nd semester
2024***

**Course Description
Guide
Microbiology**

2024

Course Description Form

1.	Course Name:
	Microbiology
2.	Course Code:
	ADT1205
3.	Semester / Year
	(2 nd semester , First Year)
4.	Description Preparation Date:
	9 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(90 Hr. / 4 Unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lecture Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com
8.	Course Objectives
As illustrated below	
<p>General goal: The general objective of studying microbiology for anesthesia technicians is to equip them with the knowledge and skills necessary to understand and address the risks associated with the procedures they participate in within healthcare settings. Microbiology in this context aims to enhance awareness of infectious diseases and how to prevent their spread in the hospital environment, as well as understanding how to safely and effectively handle biological materials.</p> <p>Specific (Behavioral) goals:</p> <ol style="list-style-type: none"> 1. By the end of the course, the student will be able to explain the structure and function of microorganisms. 2. By the end of the course, the student will be able to analyze the biological interactions occurring in microorganisms and their impact on humans. 3. By the end of the course, the student will be able to understand the role of microorganisms in human diseases, prevention methods, and treatment. 4. By the end of the course, the student will be able to evaluate the methods and techniques used in studying and analyzing microorganisms. 5. By the end of the course, the student will be able to utilize the acquired knowledge in developing strategies to combat diseases and improve public health. 	
9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies

10. Course Structure						
Weeks	Hours	Learning Outcomes	Theoretical Topics	Laboratory Topics	Teaching Methods	Assessment Methods
1 --2	6	Understanding lecture	The microorganism	Sterilization and sample collection	Lecture+ lab	Quick exam, Spot, Oral
3--4	6	Understanding lecture	Bacteria : classification , structure and functions .	Tyes Media and culture	Lecture+ lab	Quick exam, Spot, Oral
5--6	6	Understanding lecture	Media and culture	Bacteria culture and sensitivity	Lecture+ lab	Quick exam, Spot, Oral
7--8	6	Understanding lecture	Antibiotics and Antibiotic resistance	Antibiotics and Antibiotic resistance	Group Discussions + lab	Quick exam, Spot, Oral
9--10	6	Understanding lecture	Fungi: characteristics , reproductive and classification .	Fungi: characteristic s , reproductive and classification.	Lecture+ lab	Quick exam, Spot, Oral
11	6	Understanding lecture	Virus: structure , classification and reproductive .	Virus: structure , classification and reproductive. slides	Case Studies + lab	Quick exam, Spot, Oral
12--13	6	Understanding lecture	Parasite: introduction, parasite & host relationship, diagnosis	Parasite: introduction, parasite & host relationship, diagnosis slides	Lecture+ lab	Quick exam, Spot, Oral
13	6	Understanding lecture	Classes of parasite (protozoa , helminthes and ectoparasites)	Classes of parasite (protozoa , helminthes and ectoparasites) slides	Lecture+ lab	Quick exam, Spot, Oral
14	6	Understanding lecture	Helminthes: structure and classification .	Helminthes: structure and classification. slides	Lecture+ lab	Oral Presentations
15	6	Understanding lecture	The immune system, mechanism of immune system (innate and adaptive immunity).	Antigen antibody reactions (CRP- ASOT)	Lecture+ lab	Quick exam, Spot, Oral
11.						

	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.
--	--

Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40

12. Learning and Teaching Resources

Required textbooks (curricular books)	Nothing
Main references (sources)	<ol style="list-style-type: none"> "Jawetz, Melnick, & Adelberg's Medical Microbiology" by Geo. F. Brooks, Karen C. Carroll, Janet S. Butel, and Stephen A. Morse. (Latest edition: 2020) "Medical Microbiology" by Patrick R. Murray, Ken S. Rosenthal, and Michael A. Pfaller. (Latest edition: 2021) "Mims' Medical Microbiology" by Richard Goering, Hazel Dockrell, Mark Zuckerman, and Peter L. Chiodini. (Latest edition: 2018) "Microbiology: A Laboratory Manual" by Cappuccino and Sherman. (Latest edition: 2020) "Bailey & Scott's Diagnostic Microbiology" by Patricia Tille. (Latest edition: 2021)
Recommended books and references (scientific journals, reports...)	Nature Science NCBI
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Computer principles 2**

2024

Course Description Form

1.	Course Name:
	Computer principles 2
2.	Course Code:
	MAUC1206
3.	Semester / Year
	second semester , First Year)
4.	Description Preparation Date:
	9 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(45 Hr/ 2 UNIT)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lecture Dr. Ghada salim mohammed Email: gghaa2090@mauc.edu.iq
8.	Course Objectives

As illustrated below

General goal //

At the end of the course, the student will be able to employ computer skills and office programs in the fields of specialization

Behavioral goals //

1- At the end of the course, the student will be able to recognize the most important principles and basic pillars of the computer.

2- At the end of the course, the student will be able to distinguish between different operating system tools

3- At the end of the course, the student will be able to determine the type of applied software he needs according to the type of problem

4- At the end of the course, the student will be able to design and implement files

5- At the end of the course, the student will be able to distinguish between hardware and software components

9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies

10. Course Structure

Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	3	Understanding lecture	Microsoft Excel: <u>understanding basic terminology</u> (work sheet, work file, cell, cell pointer, cell content, row & column reference) <u>Building formula, Mathematical Operators, Hierarchy of main mathematical operation; Managing workbooks</u> (create new one; create from Template, enter data, moving around, saving; opening; closing workbooks)	Work with the principles of workbook and worksheet and their contents; working with mathematical operators; create worksheet, using template; show the different types of data, save works, closing workbook or closing programs, moving around the main excel window.	Lecture + Lab	Quick exam, Spot, Oral
2nd	3	Understanding lecture	<u>Manipulating the contents</u> (selecting cells; columns; rows; worksheet, using undo & redo, copying & moving data, changing column width & row height); <u>Auto filling technique</u> ; deleting & editing content; <u>Deleting & insert row or column, formatting cell</u> (number; font; alignment; border; color and shading; protection of cells and work sheet)	Changing content, autofill data; manipulating worksheet and data, using the different option of formatting cell.	Lecture + Lab	Quick exam, Spot, Oral
3rd	3	Understanding lecture	<u>Creating simple and complex formula</u> using different types of write, <u>using absolute and relative address, understanding common error values; using common built in function</u> (Sum, Average, Max, Min, Count, Count A, Count Blank, If, Round, Sqrt, Today, Day 360, Left, Right, Mid< Trim); <u>Copying formula; insert & deleting worksheet; formatting tables</u> using auto format.	Display OS's basic, on/ shutdown computer, log off, log on, restart, sleep, using mouse (pointing, selecting, dragging and execution)	Lecture + Lab	Quick exam, Spot, Oral
4th	3	Understanding lecture	<u>Working with charts</u> (create chart, select chart elements, changing chart types, positioning &	Build different types of chart, customizing their objects; built	Lecture + Lab	Quick exam, Spot, Oral

			resizing chart, chart & axis titles, changing background and color effects, changing data series color, adding or removing legend & data labels & data tables & grid lines); <u>sorting data Ascending & Descending, sorting multiple fields, filtering data using Auto and Customize type; customizing printout using option, previewing & printing worksheet.</u>	database table, sort data, filter data, print database table or chart; changing print options.			
5th	3	<u>Understanding lecture</u>	<u>Understanding Power Point & Presentation:</u> What dose a presentation include; <u>working with presentation</u> (Creating; saving; closing; opening presentation); <u>Moving around</u> in the presentation; <u>Managing the slides</u> (inserting; deleting; rearranging slides; changing layout, <u>changing or modifying themes.</u>	Create presentations, Create using templet, insert slide, change slide layout, save work.	Lecture + Lab	Quick exam, Spot, Oral	
6th	3	<u>Understanding lecture</u>	<u>Managing slide objects</u> (Using select versus edit mode; manipulating Text; create table & charts; inserting pictures or clip art or multimedia); <u>creating a Master slide; animating objects</u> (Customizing the animation. Applying Slide Transitions); <u>Running the slide show</u> and set up the presentation; <u>previewing and printing presentation .</u>	Open previous work, insert image, clipart, worksheet, sound, video as you need, put transition time with in slide and transition time between slides, rum slide show.	Lecture + Lab	Quick exam, Spot, Oral	
7th	3	<u>Understanding lecture</u>	Part 3 : Living On line <u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Exercise of checking connection of your computer system to the internet, and use a simple utility (ping request) to test whether your internet connection is functioning or not; open web sites of different domains (. Net, .org, .com,.edu)	Lecture + Lab	Quick exam, Spot, Oral	
8th		Mid-Term Review & Practical Skills Assessment					Quick exam, Spot, Oral
9th	3	<u>Understanding lecture</u>	<u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Open different web browsers (Internet explorer, Firefox, Google Chrome and others) to explain their functions (Addressing, Uploading and Downloading, and Searching) and features (Back, Forward and Refresh Buttons, Home Page, Tabs, Favorites/ Bookmarks, Checking the History, Plug-ins/ Add-one); connect to the internet; Identifying Networks and their types.	Lecture + Lab	Quick exam, Spot, Oral	
10th	3	<u>Understanding lecture</u>	<u>Common web site/page elements; browser features and functions</u> (browser function, browser features) ; <u>getting connected ; Defining network; Advantages of using networks; understanding Local Area Network (LAN) and Wide Area Network (WAN); connected to the internet</u> (Dial – up connection, direct connection); <u>Domain and sub Domain, Needs for security & firewalls</u>	Exercise of creating E-mail (Google mail, Yahoo mail, Social network account (face book and Twitter); Blogs; and message using face book messenger, Skype and other, Perform other activities in social networks (status, privacy, and Security)	Lecture + Lab	Quick exam, Spot, Oral	
11th	3	<u>Understanding lecture</u>	Digital communication: <u>How can I communicate with other ?</u> (Electronic Mail, instant messages, text messages, VoIP, video conferencing, chat room, social networking site, blogs, presence, and standards for electronic communication)	Explore E-mail properties: Security (Password, Password Recovery information, and Alternative e-mail) (To , CC, BCC, and Subject), Attaching file to email, Building contacts list and others.	Lecture + Lab	Quick exam, Spot, Oral	
12th	3	<u>Understanding lecture</u>	<u>Working with Email</u> (usernames, passwords and credentials)	Sending E mail using Outlook (With exploring all properties above)	Lecture + Lab	Quick exam, Spot, Oral	
13th	3	<u>Understanding lecture</u>	<u>Using Microsoft outlook</u> (creating new messages, working with attachments, managing spam, emptying the junk E-mail folder, automating outlook)	Try to make strong password; try to remove files without recoverable ability (ex: CCleaner free application)	Lecture + Lab	Quick exam, Spot, Oral	
14th	3	<u>Understanding lecture</u>	Digital citizenship : <u>Identifying Ethical Issues</u> (Understanding Intellectual property, copyrights and licensing); <u>Protecting Your Data or Computer</u> (Identifying Soft ware Threats, Understanding Viruses), <u>Protecting Yourself While Online; Buying Online; How Much Information Should I share ?</u> Protecting Your Privacy)	Try web search for certain keywords using different search engine(ex; Google, Bing); also search multimedia files (pictures, audio or video in specialized search engine (ex: flickr.com, youtube.com)	Lecture + Lab	Quick exam, Spot, Oral	
15th	3		<u>Finding Information: Searching For Information</u> (Different Types of Web Sites, Searching a Specific Web Site); <u>Using Search Engine Technology</u> (Understanding How Search Engines Work) <u>Narrowing the search; evaluating the information</u> (reliability and relevance; validity and authenticity; objectivity and bias	Fine specific and accurate information using google (<i>reduce no. of keywords, use quotation marks, use OR, search with certain site, and others</i>)			

11.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total

on						
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)			Nothing			
Main references (sources)			Computer Skills and Applications			
Recommended books and references (scientific journals, reports...)			1-Computer Literacy BASICS: A Comprehensive Guide to IC3 2-IC3: Internet and Computing Printed Book			
Electronic References, Websites			Browse the Google network using the desired subject key.			

**Course Description
Guide
Medical Physical2**

2024

Course Description Form

1.	Course Name:					
	Medical Physics 2					
2.	Course Code:					
	ATD1201					
3.	Semester / Year					
	(2 ND semester , First Year)					
4.	Description Preparation Date:					
	14 /4 /2024					
5.	Available Attendance Forms:					
	Weekly attendance					
6.	Number of Credit Hours (Total) / Number of Units (Total)					
	(60 Hr. / 3 Unit)					
7.	Course administrator's name (mention all, if more than one name)					
	Name: Lectuer Dr. Hiba Rashid Shakir Email: dr.hiba.r@mauc.edu.iq					
8.	Course Objectives					
	As illustrated below					
	<p>General goal: At the end of the academic year, the student will be able to: Identifying the physical phenomena of the five chapters that are dealt with by experience and linking them to what the student needs from the medical phenomena that appear during his practical life. Like blood flow and heart pressure device.</p>					
9.	Teaching and Learning Strategies					
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	Total Hours	ILOs	Theoretical Subjects	practical Subjects	Teaching Method	Assessment Method
1--2	4	Understand ing lecture	Physics of skeleton,pressure.	Physics of skeleton, pressure.	Lecture + Lab	Quick exam, Spot, Oral
3	4	Understand ing lecture	Energy, work and power of the body.	Energy, work and power of the body.	Lecture + Lab	Quick exam, Spot, Oral
4	4	Understand ing lecture	Heat and cold in medicine.	Heat and cold in medicine.	Lecture + Lab	Quick exam, Spot, Oral
5-7	4	Understand ing lecture	Specific heat, heat capacity, latent heat, thermometer and it's kinds, heat transfer by conduction, convection and radiation.	Specific heat, heat capacity, latent heat, thermometer and it's kinds, heat transfer by conduction,	Lecture + Lab	Quick exam, Spot, Oral

				convection and radiation.		
8	4	Mid-Term Review & Practical Skills Assessment				
9	4	Understanding lecture	Regulation of heat through the human body.	Regulation of heat through the human body.	Lecture + Lab	Quick exam, Spot, Oral
10-11	4	Understanding lecture	Boyle's law, diffusion and mixing of gases.	Boyle's law, diffusion and mixing of gases.	Lecture + Lab	Quick exam, Spot, Oral
12-13	4	Understanding lecture	Physics of lung and breathing.	Physics of lung and breathing.	Lecture + Lab	Quick exam, Spot, Oral
14-15	4	Understanding lecture				Evaporation of liquids, vapour pressure and boiling point, humidity, laminar and turbulent flow in liquid.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60

Practical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40

11. Learning and Teaching Resources

Required textbooks (curricular books)	Nothing
Main references (sources)	<ol style="list-style-type: none"> Irving P. Herman Physics of the Human Body Electronic Library.
Recommended books and references (scientific journals, reports...)	Relevant graduation project, scientific journals and periodicals related to the subject, medical design reports
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
General Physiology2**

2024

Course Description Form

1. Course Name:	
General Physiology 2	
2. Course Code:	
ATD1203	
3. Semester / Year	
(Second Semester, First Year)	
4. Description Preparation Date:	
13 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Latief Fayyadh Email: lat.hassi57@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below.
General goal // At the end of the academic year, the student will be able to understand the functions of the various cells and organs of the body and perform the various techniques of blood and other bodily fluid analyzes	
9. Teaching and Learning project strategy	
Strategies	<ul style="list-style-type: none">• Brainstorming strategy• Modeling learning strategy• Group work or cooperative learning strategy• Discussion strategy• Project strategy• A strategy for problem solving or problem-based learning• Story strategy.• Combining different strategies

10. Course Structure

Week	Total Hours	ILOs	Theoretical Subjects	practical Subjects	Teaching Method	Assessment Method
1st	6	Understanding lecture	Carbon dioxide transporting and exchange	ABO blood types; slide method; true method.	Lecture + Lab	Quick exam, Spot, Oral
2nd	6	Understanding lecture	Lung Vol. and capacity, types of Hypoxia	Rh. Factor; slide method; tube method.	Lecture + Lab	Quick exam, Spot, Oral
3rd	6	Understanding lecture	Physiology of digestive system, gastric phases	Cross, match test.	Lecture + Lab	Quick exam, Spot, Oral
4th	6	Understanding lecture	Steps of digestion (carbohydrate, protein, fat digestion and absorption)	Blood coagulation tests; platelets count.	Lecture + Lab	Quick exam, Spot, Oral
5th	6	Understanding lecture	Urinary system, renal functions, urine formation.	The specific gravity of blood and plasma.	Lecture + Lab	Quick exam, Spot, Oral
6th	6	Understanding lecture	Role of kidney to maintain body fluids to regulate B.Pr., acid base balance	Bleeding time (Ducks method, ivy's method).	Lecture + Lab	Quick exam, Spot, Oral
7th	6	Understanding lecture	Body temperature regulation and control	Clotting time (capillary tube. Method; lid method).	Lecture + Lab	Quick exam, Spot, Oral
8th	6	Understanding lecture	Nervous system, CNS brain function and centers	Clotting time (lee and while method).	Lecture + Lab	Quick exam, Spot, Oral

9th	6	Understanding lecture	Spinal cord, CSF, Spinal reflexes	Scientific movies show bleeding and blood transfusion.	Lecture + Lab	Quick exam, Spot, Oral
10th	6	Understanding lecture	PNS Autonomic and Sensory	Fragility test (R.B.C. fragility test).	Lecture + Lab	Quick exam, Spot, Oral
11th	6	Understanding lecture	Endocrine system control of hormone, types and secretion	Determination of viscosity of blood.	Lecture + Lab	Quick exam, Spot, Oral
12th	6	Understanding lecture	Hormonal secretion from different glands	Examination of the urine; urine collection physical examination.	Lecture + Lab	Quick exam, Spot, Oral
13th	6	Understanding lecture	Reproductive system, male and female reproductive system	The chemical examination of urine: urine creatinin.	Lecture + Lab	Quick exam, Spot, Oral
14th	6	Understanding lecture	Skeletal system physiology.	The microscopic examination of urine	Lecture + Lab	Quick exam, Spot, Oral
15th	6	Understanding lecture	Special sense physiology (vision, hearing, smell and taste).	The pulmonary function test.	Lecture + Lab	Quick exam, Spot, Oral

11. 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.

Daily Preparation	Daily Exam	practical Exam	Monthly Exam	Written Exam	Total
5	5	15	25	50	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	<ol style="list-style-type: none"> 1. Guyton and Hall textbook of medical physiology. 2. Basic physiology for anesthetists by David Chambers and Gareth Mathews 3. Fundamentals of Anatomy and Physiology for nursing and healthcare students by Jan Peate, 2nd Edition
Recommended books and references	Relevant graduation projects, scientific journals and

(scientific journals, reports...)	periodicals related to the subject, Medical Design reports.
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Biochemistry**

2024

Course Description Form

1.	Course Name:
	Biochemistry
2.	Course Code:
	ATD1204
3.	Semester / Year
	(2 ND semester , First Year)
4.	Description Preparation Date:
	8 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(90 Hr. / 4 Unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lectuer Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com
8.	Course Objectives
As illustrated below	
<p>General goal: Biochemistry for nursing aims to equip nurses with a comprehensive understanding of the chemical processes involved in carbohydrates, Proteins, lipids, Minerals and vitamins, that underlie human health, disease, and treatment. This knowledge enables nurses to understand patient conditions, apply clinical interventions, educate patients on lifestyle and dietary choices, enhance patient care using biochemical markers and tests, and support holistic care. Nurses can use biochemistry knowledge to identify health issues, monitor conditions, understand medication interactions, and provide holistic patient care, improving health outcomes and quality of life.</p> <p>Specific (Behavioral) goals:</p> <ol style="list-style-type: none"> Understand Metabolic Pathways: Students will accurately describe the major metabolic pathways and their integration within the cell. Analyze Biochemical Data: Students will be able to analyze and interpret biochemical data from laboratory experiments and clinical tests. Apply Biochemical Knowledge to Clinical Situations: Learners will apply their understanding of biochemistry to diagnose and propose treatment strategies for metabolic diseases. Demonstrate Laboratory Techniques: Students will demonstrate proficiency in basic and advanced biochemical laboratory techniques. Critically Evaluate Biochemical Research: Graduates will critically evaluate current biochemical research and its implications for medicine and healthcare. 	
9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy.

Combining different strategies						
10. Course Structure						
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	6	Understanding lecture	Carbohydrate Classification and metabolism	Determination of Glucose in serum, urine, GTT, HbA1C	Lecture + Lab	Quick exam, Spot, Oral
2nd	6	Understanding lecture	Protein classification and metabolism	Determination of serum total protein albumin and globulin.	Lecture + Lab	Quick exam, Spot, Oral
3rd	6	Understanding lecture	Enzymes, definition, classification, general properties, function. Factors affecting enzymes activity, enzyme inhibition.	Determination of amylase activity in serum	Lecture + Lab	Quick exam, Spot, Oral
4th	6	Understanding lecture	Enzymes in clinical diagnosis.	Determination of lipase activity in serum.	Lecture + Lab	Quick exam, Spot, Oral
5th	6	Understanding lecture	Vitamins and coenzymes, fat soluble vitamins, water soluble vitamins.	Estimation of (Vitamin C) (Ascorbic acid) in urine.	Lecture + Lab	Quick exam, Spot, Oral
6th	6	Understanding lecture	Lipids: Types , mechanisms and metabolism	Determination of Lipid profile	Lecture + Lab	Quick exam, Spot, Oral
7th	6	Understanding lecture	Biosynthesis and catabolism of fatty acid	Determination of Lipid profile	Lecture + Lab	Quick exam, Spot, Oral
8th	6	Understanding lecture	Liver function tests, bilirubin, conjugated and non-conjugated, bile pigment, Brom Sulfone Phthalien (BSP), diagnosis of various types of jaundice.	Determination of serum alkaline phosphates GPT GOT and bilirubin	Lecture + Lab	Quick exam, Spot, Oral
9th	6	Understanding lecture	Liver diseases, hepatitis, cirrhosis,	Determination of serum acid	Lecture + Lab	Quick exam, Spot, Oral

			necrosis.	phosphates.		
10th	6	Understanding lecture	Changes in serum enzymes in liver disease.	Determination of serum GPT GOT and bilirubin	Lecture + Lab	Quick exam, Spot, Oral
11th	6	Understanding lecture	Hormones, definition, chemical nature, steroid hormones	determination of hormones	Lecture + Lab	Quick exam, Spot, Oral
12th	6	Understanding lecture	Steroid Biosynthesis, Nitrogen metabolism	Determination of blood urea, and uric acid in serum.	Lecture + Lab	Quick exam, Spot, Oral
13th	6	Understanding lecture	Kidney function tests, measuring glomerular filtration, tubular filtration, renal blood flow.	Determination of creatinine in serum and GFR	Lecture + Lab	Quick exam, Spot, Oral
14th	6	Understanding lecture	Formation and composition of urine, changes in urine volume, specific gravity, constituents.	General urine analysis.	Lecture + Lab	Quick exam, Spot, Oral
15 th	6	Understanding lecture	Blood Ph, and Buffering system	ABG and VBG	Lecture + Lab	Quick exam, Spot, Oral
11.						
	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.					
Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)			Nothing			
Main references (sources)			<ol style="list-style-type: none"> Lehninger Principles of Biochemistry, 7th Edition, by David L. Nelson and Michael M. Cox, 2017. Biochemistry, 8th Edition, by Jeremy M. Berg, John L. Tymoczko, and Lubert Stryer, 2015. 			

	<ol style="list-style-type: none"> 3. Biochemistry, 5th Edition, by Donald Voet and Judith G. Voet, 2020. 4. Molecular Biology of the Cell, 6th Edition, by Bruce Alberts, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, and Peter Walter, 2014. 5. Principles of Biochemistry, 7th Edition, by Albert L. Lehninger, David L. Nelson, and Michael M. Cox, 2017.
Recommended books and references (scientific journals, reports...)	<p>journal of Biological Chemistry (JBC) Biochemical Journal Trends in Biochemical Sciences (TiBS) Nature Reviews Molecular Cell Biology Nature Science NCBI</p>
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Anatomy 2**

2024

Course Description Form

1. Course Name:	
Anatomy 1	
2. Course Code:	
ATD1202	
3. Semester / Year	
(2 nd semester , First Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Lectuerer Dr. Jassim mohammad breej	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general objective of studying anatomy is to understand the detailed structure of the human body, and how various organs and systems interact with each other to perform vital functions. This understanding helps students and professionals in medical and health fields to improve their ability to diagnose diseases and manage treatments effectively.	
Specific (Behavioral) goals // <ol style="list-style-type: none">1. Identification of Structure: Enable students to identify and describe the major organs and systems in the human body.2. Understanding and Analysis: Develop students' ability to analyze how different systems within the body interact.3. Practical Application: Enhance students' skills in applying their anatomical knowledge in real-life scenarios and clinical situations.4. Evaluation: Empower students to evaluate and interpret medical conditions based on their understanding of anatomy.5. Communication: Improve students' ability to effectively communicate with peers and patients about topics related to anatomy.	

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Theoretical	Practical	Learning method	Evaluation method
1-	4	Understanding and assimilation	CNS structure and functions	Revision – clinical and applied questions.	Brainstorming strategy	Oral and written Examination
2-	4	Understanding and assimilation	PNS spinal nerves	Nervous system – central – brain and spinal cord.	Teamwork strategy.	Oral and written Examination
3-	4	Understanding and assimilation	Sensory and motor nerves systems	Meninges-spinal nerves, cranial n.n.	Project strategy	Oral and written Examination
4-	4	Understanding and assimilation	GIT system; parts and structure of wall and stomach.	Peripheral nervous system.	Discussion strategy	Oral and written Examination
5-	4	Understanding and assimilation	Salivary gland structure, pancreas and Gall Bladder.	Autonomic nervous system. (sympathetic and parasympathetic)	Story strategy	Oral and written Examination
6-	4	Understanding and assimilation	Liver anatomy structure and functions	Gastro – intestinal tract.	Problem solving strategy	Oral and written Examination
7-	4	Understanding and assimilation	Urinary system kidney, ureter, urinary bladder, urethra	Accessory glands.	Modeling learning strategy	Oral and written Examination
8-	4	Understanding and assimilation	Muscular system.	Kidney-urethra-bladder.	Teamwork strategy.	Oral and written Examination
9-	4	Understanding and assimilation	Reproductive system – male genitalia.	Revision – clinical – notes and questions.	Combining different strategies	Oral and written Examination

10-	4	Understanding and assimilation	Female reproductive organs.	Reproductive system-male.	Combining different strategies	Oral and written Examination
11-	4	Understanding and assimilation	Endocrine glands-anatomy and function.	Reproductive system – female.	Combining different strategies	Oral and written Examination
12-	4	Understanding and assimilation	Endocrine glands-anatomy and function.	Endocrine glands.	Teamwork strategy.	Oral and written Examination
13-	4	Understanding and assimilation	Special sense anatomy.	Ear- parts, function.	Project strategy	Oral and written Examination
14-	4	Understanding and assimilation	Alveoli-lungs-pleural activity.	Respiratory system-lower respiratory tract.	Combining different strategies	Oral and written Examination
15-	4	Understanding and assimilation	Upper and lower limb	Lung – pleura – functions.	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	practical	Monthly Exam	Final	Total
5	5	5	15	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	<p>"Gray's Anatomy: The Anatomical Basis of Clinical Practice" - Often considered the gold standard for anatomy references, this book offers detailed information on human anatomy and is widely used by healthcare professionals and students.</p> <p>"Clinically Oriented Anatomy" by Keith L. Moore, Arthur F. Dalley, and Anne M.R. Agur - This textbook is popular among medical students because it links anatomy to clinical practice.</p> <p>"Atlas of Human Anatomy" by Frank H. Netter - Known for its detailed and colorful anatomical drawings, this atlas is a favorite among students for understanding the</p>

complex details of human anatomy.

Online Resources:

Kenhub - Offers a wide range of learning tools including online atlases, articles, videos, and quizzes focused on anatomy.

AnatomyZone - Provides free 3D tutorials on anatomy, making it a valuable resource for visual learners.

Visible Body - Features highly detailed, anatomically accurate 3D models of the human body which are useful for both teaching and learning purposes.

Journals:

"Clinical Anatomy" - A peer-reviewed journal that publishes articles on the clinical aspects of anatomy, which is helpful for those looking to understand the practical application of anatomical knowledge.

"American Journal of Anatomy" - Covers a wide range of topics within anatomy and related disciplines and is useful for academic and clinical research.

Professional Associations and Societies:

American Association of Anatomists (AAA) - Provides resources, professional development opportunities, and research updates for professionals in the field of anatomy.

British Association of Clinical Anatomists (BACA) - Offers conferences and journals that help practitioners and educators stay updated on the latest developments in clinical anatomy.

Recommended books and references
(scientific journals, reports...)

Online Resources

1. Kenhub
• Features: Offers comprehensive anatomy learning modules, quizzes, and high-quality illustrations and videos.

2. Visible Body
• Features: A suite of apps that provide highly detailed 3D models and animations that demonstrate anatomical structures and functions.

Scientific Journals

1. "Clinical Anatomy"
• Published by: Wiley-Liss
• Features: Focuses on anatomy as it relates to the practice of medicine, dentistry, and physical therapy.

2. "Journal of Anatomy"
• Published by: Wiley-Blackwell on behalf of the Anatomical Society

• Features: One of the oldest and most respected anatomy journals, publishing original research on all aspects of structural biology.

Reports and Other References

1. "The Anatomical Record"
• Features: This journal provides new insights into the functional impact of anatomical structure and the developmental origins of anatomical variation.

2. "American Journal of Physical Anthropology"
• Features: Publishes articles and reports on the anatomy of living and fossil hominids, contributing to the understanding of human and primate evolution.

Electronic References, Websites

Browse the Google network
using the desired subject key.

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

Description of the academic program

The Second stage

1st semester

2024

Course Description Guide
Basics of Anesthetic
Equipment 2+1

2024

Course Description Form

1. Course Name:	
Basics of Anesthetic Equipment	
2. Course Code:	
ATD2102	
3. Semester / Year	
(First and second semester , 2nd Year)	
4. Description Preparation Date:	
12 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Saif Khalid Salsal	
Email: drsaif3000@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal //	
At the end of the course, the student will be able to know the Basics related to Anesthetic Equipment and how to use and repaired	
Specific (Behavioral) goals //	
Introducing the student to the basic principles related to the Anesthetic Equipment and intensive care.	
Own goal:	

- 1- The student must know about the science of Anesthetic Equipment
- 2- The student must know at the end of year how to operate the Anesthetic Equipment and Machine
- 3- The student must know how to dismantling the Equipment and re-erecting
- 4-the student must know how to maintenance use of Anesthetic Equipment and Machine

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> • The scientific material is delivered theoretically by the teacher • The teacher supervises the students' practical training and corrects their scientific ideas • Discussion strategy • A strategy for problem solving or problem-based learning • Story strategy • Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	
			Practical and theoretical		
1.	4	Understanding the lecture	Medical gas supply	Lecture and practical application	Theoretical and practical exam
2.	4	Understanding the lecture	Piped gas supply	Lecture and practical application	Theoretical and practical exam
3.	4	Understanding the lecture	Cylinder Manifold	Lecture and practical application	Theoretical and practical exam
4.	4	Understanding the lecture	Liquid Oxygen	Lecture and practical application	Theoretical and practical exam

5.	4	Understanding the lecture	Oxygen concentrator	Lecture and practical application	Theoretical and practical exam
6.	4	Understanding the lecture	Airway Devices and Tools	Lecture and practical application	Theoretical and practical exam
7.	4	Understanding the lecture	Specially designed tracheal tubes	Lecture and practical application	Theoretical and practical exam
8.	4	Understanding the lecture	Anesthetic Machine	Lecture and practical application	Theoretical and practical exam
9.	4	Understanding the lecture	Pressure regulator	Lecture and practical application	Theoretical and practical exam
10.	4	Understanding the lecture	Flowmeters	Lecture and practical application	Theoretical and practical exam
11.	4	Understanding the lecture	Check List	Lecture and practical application	Theoretical and practical exam
12-15	4	Understanding the lecture	Monitors	Lecture and practical application	Theoretical and practical exam

11. 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.

Daily exam	Practical exam	Monthly theoretical exam (1+2)	Final written and clinical	Total
5	15	20	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	ESSENTIAL OF Anaesthetic Equipment Baha Al-shaikh Simon Stacey, Morgan and Mikhail's Clinical Anesthesiology 6 th edition
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines

Electronic References, Websites

Browse the Google network using the desired subject key.

**Course Description
Guide
Basics of Surgery 1**

2024

Course Description Form

1. Course Name:	
Basics of Surgery 1	
2. Course Code:	
ATD2104	
3. Semester / Year	
(First semester , 2ND Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(45 Hr. / 2 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Mohanad Abdul Ameer Email: crush.avenue81@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic technicians in surgery is to provide comprehensive support to anesthesiologists and surgeons by ensuring the safe and effective delivery of anesthesia. This includes preparing anesthesia equipment and medications, monitoring patient vital signs during surgery, and assisting in the management of potential anesthetic complications. The aim is to enhance patient care through meticulous preparation and vigilant monitoring, thereby contributing to successful surgical outcomes and optimizing patient safety.	
Specific (Behavioral) goals // 1. Skill Acquisition: Anesthetic technicians will acquire the technical skills necessary to operate and maintain anesthesia delivery systems and monitoring equipment proficiently. 2. Patient Monitoring: Technicians will be adept at continuously monitoring patient vital signs and anesthesia depth, adjusting parameters as directed by the anesthesiologist to maintain patient safety. 3. Emergency Response: Technicians will be trained to recognize	

signs of anesthesia-related complications and assist in the management of emergency situations, including the execution of basic life support (BLS) and advanced cardiovascular life support (ACLS) protocols.

4. **Team Communication:** Develop effective communication skills to work collaboratively with the surgical and anesthesia teams, ensuring clear and precise information transfer during critical moments.
5. **Knowledge Application:** Apply theoretical knowledge of pharmacology and physiology relevant to anesthesia to support decision-making processes and enhance patient care.

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	3	Understanding and assimilation	Overview of engineering mechanical design	Brainstorming strategy	Oral and written Examination
2-	3	Understanding and assimilation	Mass balancing, heat balancing,	Teamwork strategy.	Oral and written Examination
3-	3	Understanding and assimilation	Size Reduction	Project strategy	Oral and written Examination
4-	3	Understanding and assimilation	Jaw crusher design	Discussion strategy	Oral and written Examination
5-	3	Understanding and assimilation	Design of roller crusher	Story strategy	Oral and written Examination
6-	3	Understanding and assimilation	Ball mill design	Problem solving strategy	Oral and written Examination
7-	3	Understanding and assimilation	Industrial Mixer design	Modeling learning strategy	Oral and written Examination
8-	3	Understanding and assimilation	Design of the magnetic separator.	Teamwork strategy.	Oral and written Examination
9-	3	Understanding and assimilation	Design of industrial screening device	Combining different strategies	Oral and written Examination

10-	3	Understanding and assimilation	Shaft design	Combining different strategies	Oral and written Examination
11-	3	Understanding and assimilation	Bearings design	Combining different strategies	Oral and written Examination
12-	3	Understanding and assimilation	Key design	Teamwork strategy.	Oral and written Examination
13-	3	Understanding and assimilation	Design of threaded fasteners (bolts)	Project strategy	Oral and written Examination
14-	3	Understanding and assimilation	Furnace design, dryer	Combining different strategies	Oral and written Examination
15-	3	Understanding and assimilation	Conveyer design	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Practical	Report	Monthly Exam	Final Exam	Total
5	5	15	5	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	<p>Process Design: Making it Work: A Practical Guide to What to do When and How for Facilitators, Consultants, Managers and Coaches , Book overview.</p> <p>Popular Process Engineering Books ; Principles of Process Engineering S. M. enderson ; Chemical Process Equipment: Selection and Design James R. Couper ;</p> <p>Apply fundamental concepts from statics, dynamics, and mechanics of materials to the design of machine components and/or systems. — Apply static and fatigue</p>
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for Mining Engineering students, scientific journals and periodicals related to the subject, Engineering Design reports.
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Computer applications 1**

2024

Course Description Form

1.	Course Name:
	Computer applications 1
2.	Course Code:
	M.req 02
3.	Semester / Year
	1 st semester , First Year)
4.	Description Preparation Date:
	9 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(45 Hr. 2 units)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lecture osama basil gazi Email: osama87@mauc.edu.iq
8.	Course Objectives

As illustrated below

General goal //
At the end of the course, the student will be able to employ computer skills and office programs in the fields of specialization

Behavioral goals //

- 1- At the end of the course, the student will be able to recognize the most important principles and basic pillars of the computer.
- 2- At the end of the course, the student will be able to distinguish between different operating system tools
- 3- At the end of the course, the student will be able to determine the type of applied software he needs according to the type of problem
- 4- At the end of the course, the student will be able to design and implement files
- 5- At the end of the course, the student will be able to distinguish between hardware and software components

9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies

10. Course Structure						
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1 st	3	<u>Understanding lecture</u>	Microsoft Excel: <u>understanding basic terminology</u> (work sheet, work file, cell, cell pointer, cell content, row & column reference) <u>Building formula, Mathematical Operators, Hierarchy of main mathematical operation; Managing workbooks</u> (create new one; create from Template, enter data, moving around, saving; opening; closing workbooks)	Work with the principles of workbook and worksheet and their contents; working with mathematical operators; create worksheet, using template; show the different types of data, save works, closing workbook or closing programs, moving around the main excel window.	<u>Lecture + Lab</u>	<u>Quick exam, Spot, Oral</u>
2 nd	3	<u>Understanding lecture</u>	<u>Manipulating the contents</u> (selecting cells; columns; rows; worksheet, using undo & redo, copying & moving data, changing column width & row height); <u>Auto filling technique</u> ; deleting & editing content; <u>Deleting & insert row or column, formatting cell</u> (number; font; alignment; border; color and shading; protection of cells and work sheet)	Changing content, autofill data; manipulating worksheet and data, using the different option of formatting cell.	<u>Lecture + Lab</u>	<u>Quick exam, Spot, Oral</u>
3 rd	3	<u>Understanding lecture</u>	<u>Creating simple and complex formula</u> using different types of write, <u>using absolute and relative address, understanding common error values; using common built in function</u> (Sum, Average, Max, Min, Count, Count A, Count Blank, If, Round, Sqrt, Today, Day 360, Left, Right, Mid< Trim); <u>Copying formula; insert & deleting worksheet; formatting tables</u> using auto format.	Display OS's basic, on/ shutdown computer, log off, log on, restart, sleep, using mouse (pointing, selecting, dragging and execution)	<u>Lecture + Lab</u>	<u>Quick exam, Spot, Oral</u>
4 th	3	<u>Understanding lecture</u>	<u>Working with charts</u> (create chart, select chart elements, changing chart types, positioning &	Build different types of chart, customizing their objects; built	<u>Lecture + Lab</u>	<u>Quick exam, Spot, Oral</u>

			resizing chart, chart & axis titles, changing background and color effects, changing data series color, adding or removing legend & data labels & data tables & grid lines); <u>sorting data Ascending & Descending, sorting multiple fields, filtering data using Auto and Customize type; customizing printout using option, previewing & printing worksheet.</u>	database table, sort data, filter data, print database table or chart; changing print options.			
5th	3	<u>Understanding lecture</u>	<u>Understanding Power Point & Presentation:</u> What dose a presentation include; <u>working with presentation</u> (Creating; saving; closing; opening presentation); <u>Moving around</u> in the presentation; <u>Managing the slides</u> (inserting; deleting; rearranging slides; changing layout, <u>changing or modifying themes.</u>	Create presentations, Create using templet, insert slide, change slide layout, save work.	Lecture + Lab	Quick exam, Spot, Oral	
6th	3	<u>Understanding lecture</u>	<u>Managing slide objects</u> (Using select versus edit mode; manipulating Text; create table & charts; inserting pictures or clip art or multimedia); <u>creating a Master slide; animating objects</u> (Customizing the animation. Applying Slide Transitions); <u>Running the slide show</u> and set up the presentation; <u>previewing and printing presentation .</u>	Open previous work, insert image, clipart, worksheet, sound, video as you need, put transition time with in slide and transition time between slides, rum slide show.	Lecture + Lab	Quick exam, Spot, Oral	
7th	3	<u>Understanding lecture</u>	Part 3 : Living On line <u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Exercise of checking connection of your computer system to the internet, and use a simple utility (ping request) to test whether your internet connection is functioning or not; open web sites of different domains (. Net, .org, .com,.edu)	Lecture + Lab	Quick exam, Spot, Oral	
8th		Mid-Term Review & Practical Skills Assessment					Quick exam, Spot, Oral
9th	3	<u>Understanding lecture</u>	<u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Open different web browsers (Internet explorer, Firefox, Google Chrome and others) to explain their functions (Addressing, Uploading and Downloading, and Searching) and features (Back, Forward and Refresh Buttons, Home Page, Tabs, Favorites/ Bookmarks, Checking the History, Plug-ins/ Add-one); connect to the internet; Identifying Networks and their types.	Lecture + Lab	Quick exam, Spot, Oral	
10th	3	<u>Understanding lecture</u>	<u>Common web site/page elements; browser features and functions</u> (browser function, browser features) ; <u>getting connected ; Defining network; Advantages of using networks; understanding Local Area Network (LAN) and Wide Area Network (WAN); connected to the internet</u> (Dial – up connection, direct connection); <u>Domain and sub Domain, Needs for security & firewalls</u>	Exercise of creating E-mail (Google mail, Yahoo mail, Social network account (face book and Twitter); Blogs; and message using face book messenger, Skype and other, Perform other activities in social networks (status, privacy, and Security)	Lecture + Lab	Quick exam, Spot, Oral	
11th	3	<u>Understanding lecture</u>	Digital communication: <u>How can I communicate with other ?</u> (Electronic Mail, instant messages, text messages, VoIP, video conferencing, chat room, social networking site, blogs, presence, and standards for electronic communication)	Explore E-mail properties: Security (Password, Password Recovery information, and Alternative e-mail) (To , CC, BCC, and Subject), Attaching file to email, Building contacts list and others.	Lecture + Lab	Quick exam, Spot, Oral	
12th	3	<u>Understanding lecture</u>	<u>Working with Email</u> (usernames, passwords and credentials)	Sending E mail using Outlook (With exploring all properties above)	Lecture + Lab	Quick exam, Spot, Oral	
13th	3	<u>Understanding lecture</u>	<u>Using Microsoft outlook</u> (creating new messages, working with attachments, managing spam, emptying the junk E-mail folder, automating outlook)	Try to make strong password; try to remove files without recoverable ability (ex: CCleaner free application)	Lecture + Lab	Quick exam, Spot, Oral	
14th	3	<u>Understanding lecture</u>	Digital citizenship : <u>Identifying Ethical Issues</u> (Understanding Intellectual property, copyrights and licensing); <u>Protecting Your Data or Computer</u> (Identifying Soft ware Threats, Understanding Viruses), <u>Protecting Yourself While Online; Buying Online; How Much Information Should I share ?</u> Protecting Your Privacy)	Try web search for certain keywords using different search engine(ex; Google, Bing); also search multimedia files (pictures, audio or video in specialized search engine (ex: flickr.com, youtube.com)	Lecture + Lab	Quick exam, Spot, Oral	
15th	3		<u>Finding Information: Searching For Information</u> (Different Types of Web Sites, Searching a Specific Web Site); <u>Using Search Engine Technology</u> (Understanding How Search Engines Work) <u>Narrowing the search; evaluating the information</u> (reliability and relevance; validity and authenticity; objectivity and bias	Fine specific and accurate information using google (<i>reduce no. of keywords, use quotation marks, use OR, search with certain site, and others</i>)			

11.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total

on						
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)	Nothing					
Main references (sources)	Computer Skills and Applications					
Recommended books and references (scientific journals, reports...)	1-Computer Literacy BASICS: A Comprehensive Guide to IC3 2-IC3: Internet and Computing Printed Book					
Electronic References, Websites	Browse the Google network using the desired subject key.					

**Course Description
Guide
Basics of
Anesthesia1**

2024

Course Description Form

1. Course Name:	
Basics of Anesthesia1	
2. Course Code:	
ATD2101	
3. Semester / Year	
(1ST semester , 2nd Year)	
4. Description Preparation Date:	
5 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Mohannad Athar Tawfeeq Email: mohannadathar@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // At the end of the course, the student will be able to know how to anesthetize the patient and deal with him in intensive care unit.....	
Specific (Behavioral) goals // Introducing the student to the basic principles related to the foundations of anesthesia and intensive care. Own goal: 1- The student will be introduced to anesthesia and intensive care. 2- Knowledge of basic sciences such as physiology and diseases and how to deal with them while administering anesthesia. A3- The student learns how to perform cardiopulmonary resuscitation. A4- Knowing emergency situations and how to deal with them. A5- Knowing the complications of anesthesia medications and how to treat and reduce them. A6- The student learns about the types of anesthesia (general, spinal, and local). 7- Know how to prepare for cold and emergency surgeries. 8- Knowledge of dealing with all branches of surgery, gynecology, oncology and children. 9- Knowledge of dealing with intensive care patients.	

10- Knowledge of how to deal with monitoring, breathing, and resuscitation devices.

11- Knowledge of treatment protocols for emergency cases.

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> • The scientific material is delivered theoretically by the teacher • The teacher supervises the students' practical training and corrects their scientific ideas • Discussion strategy • A strategy for problem solving or problem-based learning • Story strategy • Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	
1.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
2.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
3.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
4.	4	Understanding the lecture	Anesthetic crises(laryngospasm, bronchospasm, hypoxia during anesthesia, malignant hyperthermia)	Lecture and practical application	Theoretical and practical exam
5.	4	Understanding the lecture	Anesthetic crises(laryngospasm, bronchospasm, hypoxia during anesthesia,	Lecture and practical application	Theoretical and practical exam

			malignant hyperthermia)		
6.	4	Understanding the lecture	Intravenous fluid types and usage	Lecture and practical application	Theoretical and practical exam
7.	4	Understanding the lecture	Intravenous fluid types and usage	Lecture and practical application	Theoretical and practical exam
8.	4	Understanding the lecture	Blood and blood products	Lecture and practical application	Theoretical and practical exam
9.	4	Understanding the lecture	Blood and blood products	Lecture and practical application	Theoretical and practical exam
10.	4	Understanding the lecture	Surgical position and their complications	Lecture and practical application	Theoretical and practical exam
11.	4	Understanding the lecture	Surgical position and their complications	Lecture and practical application	Theoretical and practical exam
12.	4	Understanding the lecture	Cardiopulmonary resuscitation CPR	Lecture and practical application	Theoretical and practical exam
13.	4	Understanding the lecture	Cardiopulmonary resuscitation CPR	Lecture and practical application	Theoretical and practical exam
14.	4	Understanding the lecture	Intraoperative patient monitoring	Lecture and practical application	Theoretical and practical exam
15.	4	Understanding the lecture	Safety measures in operating room	Lecture and practical application	Theoretical and practical exam

11. 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.

Practical	Theoretical	Final written and clinical	Total
15	25	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Oxford handbook of clinical anesthesia , Morgan and Mikhail's Clinical Anesthesiology 6 th edition
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines

Electronic References, Websites

Browse the Google network using the desired subject key.

**Course Description
Guide
Basics of Medicine 1**

2024

Course Description Form

1. Course Name:	
Basics of Medicine 1	
2. Course Code:	
ATD2105	
3. Semester / Year	
(First semester , 2 ND Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Hazim Abdul Razaq Lecturer Dr. Salah Aldeen Abdul Nabi	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic techniques students specializing in internal medicine is to develop a comprehensive understanding of the principles and practices of anesthesia as they relate to the diagnosis, treatment, and management of internal diseases. Students will gain proficiency in applying anesthesia techniques safely and effectively in various internal medicine procedures.	
Specific (Behavioral) goals // <ol style="list-style-type: none">1. Skill Development: Master technical skills required for administering anesthesia in internal medicine, including sedation management for endoscopic procedures and pain management for chronic conditions.2. Patient Assessment: Become proficient in assessing internal medicine patients pre-operatively to identify any potential anesthetic risks and plan appropriate anesthesia care.3. Critical Thinking: Enhance the ability to make informed decisions regarding anesthetic techniques based on a patient's medical history and current health status.4. Interdisciplinary Collaboration: Develop skills for effective collaboration with internal medicine specialists to ensure comprehensive patient care.5. Continuous Learning: Engage in ongoing education to stay updated with the latest advancements in anesthetic techniques and internal medicine practices.	
9. Teaching and Learning Strategies	

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-3	3	Understanding and assimilation	Diseases due to infection/ concepts of infection major manifestations /methods of diagnosis bacteremia/ septicemia / principles of management.	Brainstorming strategy	Oral and written Examination
4-6	3	Understanding and assimilation	Diseases of the respiratory system-Introduction.	Teamwork strategy.	Oral and written Examination
7-8	3	Understanding and assimilation	Major manifestations / investigations/ resp. function tests.	Project strategy	Oral and written Examination
9	3	Understanding and assimilation	Diseases of the C.V.S. / introduction/ major manifestation investigations.	Discussion strategy	Oral and written Examination
10	3	Understanding and assimilation	Principles of electrocardiography/ normal ECG/S.Tachycardia/ S.Bradycardia/ S.arrhythmia.	Story strategy	Oral and written Examination
11	3	Understanding and assimilation	Diseases of the GIT/ Introduction/ major manifestation/ investigations.	Problem solving strategy	Oral and written Examination
12	3	Understanding and assimilation	Diseases of the liver/	Modeling learning strategy	Oral and written Examination
13	3	Understanding and assimilation	introduction/ Bilirubin	Teamwork strategy.	Oral and written Examination
14	3	Understanding and assimilation	metabolism	Combining different strategies	Oral and written Examination
15	3	Understanding and assimilation	major manifestations / investigations.	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Practical	Monthly Exam	Final Exam	Total
5	5	5	10	15	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
---	---------

Main references (sources)	Harrison's Principles of Internal Medicine" "Cecil Essentials of Medicine" "Davidson's Principles and Practice of Medicine" "Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine" "Current Medical Diagnosis and Treatment" "The Washington Manual of Medical Therapeutics" "Oxford Handbook of Clinical Medicine" "Goldman-Cecil Medicine" "Mayo Clinic Internal Medicine Board Review" "CMDT 2021: Current Medical Diagnosis & Treatment"
Recommended books and references (scientific journals, reports...)	The New England Journal of Medicine (NEJM) The Lancet Journal of the American Medical Association (JAMA) Annals of Internal Medicine BMJ (British Medical Journal) Internal Medicine Journal Journal of Internal Medicine American Journal of Medicine European Journal of Internal Medicine Archives of Internal Medicine
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Applied Physiology 1**

2024

Course Description Form

1.	Course Name:					
	Applied Physiology 1					
2.	Course Code:					
	ATD2103					
3.	Semester / Year					
	(First semester , 2 nd Year)					
4.	Description Preparation Date:					
	18 /4 /2024					
5.	Available Attendance Forms:					
	Weekly attendance					
6.	Number of Credit Hours (Total) / Number of Units (Total)					
	(60 Hr. / 3 Unit)					
7.	Course administrator's name (mention all, if more than one name)					
	Name: Lecture Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com Dr. Mohammad Abdul Qader					
8.	Course Objectives					
As illustrated below						
General goal:						
The general goal for students of applied physiology for anesthetic techniques is to understand the physiological mechanisms and responses of the human body to anesthesia. This includes gaining a thorough knowledge of how various anesthetic agents interact with body systems during surgical procedures.						
Specific (Behavioral) goals:						
<ol style="list-style-type: none"> 1. Master Physiological Concepts: Understand the fundamental physiological processes affected by anesthesia. 2. Apply Knowledge Practically: Apply this physiological knowledge to enhance the safety and effectiveness of anesthesia administration. 3. Analyze Patient Responses: Analyze and interpret physiological responses in patients undergoing anesthesia to optimize care. 4. Adapt Techniques: Adapt anesthetic techniques based on individual patient physiological conditions and responses. 5. Engage in Continuous Learning: Stay updated with the latest research and advancements in applied physiology relevant to anesthesia. 						
9.	Teaching and Learning Strategies					
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	4	Understanding lecture	Homeostasis, fluid-electrolytes imbalance & acid-	Laboratory Safety and Basic	Lecture + Lab	Quick exam, Spot, Oral

			base disturbance “ Related to Anesthesia	Techniques		
2nd	4	Understanding lecture	Homeostasis, general scheme of metabolism, I.V fluid, used in clinical practice, Diabetes Mellitus	Clinical physiology measurement of body temperature using thermometer.	Lecture + Lab	Quick exam, Spot, Oral
3rd	4	Understanding lecture	.Common disorders of fluid & electrolytes imbalance- general nots, vomiting, diarrhea, diabetic Keto- Acidosis, Metaboli c, acidaemia, Metabolic Alkalaemia K ⁺ , changes and electromotive force- EME.	Examination of C.V.S., hormonal control- local control.	Lecture + Lab	Quick exam, Spot, Oral
4th	4	Understanding lecture	Kidneys, liver , lung functions related anaesthesia to homeostasis	Repeat.	Lecture + Lab	Quick exam, Spot, Oral
5th	4	Understanding lecture	Chemistry of control respiratory stimulation & application in anaesthesia	Arrhythmia and arterial pulse.	Lecture + Lab	Quick exam, Spot, Oral
6th	4	Understanding lecture	Normal curve of respiration during the respiratory cycle “ pleural pressure, transpulmonary pressure, flow VT”	Repeat.	Lecture + Lab	Quick exam, Spot, Oral
7th	4	Understanding lecture	Q ₂ cascade , lung volumes of importance & application in anaesthesia	Measurement of arterial blood pressure: Ascultation method.	Lecture + Lab	Quick exam, Spot, Oral
8th	4	Mid-Term Review & Practical Skills Assessment	Obstructive lung disease, restrictive lung disease.	Measurement of arterial blood pressure palpation method.		Quick exam, Spot, Oral
9th	4	Understanding lecture	Dead space, shunt, physiological, pathological during anaesthesia	Effect of exercise on blood pressure.	Lecture + Lab	Quick exam, Spot, Oral
10th	4	Understanding lecture	Factors that help in lung expansion in each cardiac	Electrocardio gram.	Lecture + Lab	Quick exam, Spot, Oral

			cycle at the beginning of inspiration			
11th	4	Understanding lecture	Meaning of breathing during I.P.P.V + high "FIO ₂ "	E.C.G.	Lecture + Lab	Quick exam, Spot, Oral
12th	4	Understanding lecture	Types of I.P.P.V wave – classification.	E.C.G.	Lecture + Lab	Quick exam, Spot, Oral
13th	4	Understanding lecture	Importance of monitoring the airway pressure gauge during I.P.P.V.	E.C.G.	Lecture + Lab	Quick exam, Spot, Oral
14th	4	Understanding lecture	Types of hypoxia – classification & examples	Examination of respiratory system lung volumes and capacities.	Lecture + Lab	Quick exam, Spot, Oral
15 th	4	Final Review and Integration	Types of resp. failure - classification & examples	Respiratory function tests in measurement of capacity by using spirometer.	Lecture + Lab	Quick exam, Spot, Oral

11.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60

Practical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40

12.

Learning and Teaching Resources

Required textbooks (curricular books)	Nothing
Main references (sources)	<ol style="list-style-type: none"> 1. Berne & Levy Physiology" 2. "Guyton and Hall Textbook of Medical Physiology" 3. "Ganong's Review of Medical Physiology" 4. Principles of Biochemistry
Recommended books and references (scientific journals, reports...)	"Anesthesia & Analgesia" "Journal of Applied Physiology" "British Journal of Anaesthesia"
Electronic References, Websites	Browse the Google network using the desired subject key.

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

***Description of the academic
program
The Second stage
2nd semester
2024***

**Course Description
Guide
Computer applications 2**

2024

Course Description Form

1.	Course Name:
	Computer applications2
2.	Course Code:
	M. Req. 02
3.	Semester / Year
	2 st semester , 2 nd Year)
4.	Description Preparation Date:
	9 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(45 Hr. (2 unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Lecture osama basil gazi Email: osama87@mauc.edu.iq
8.	Course Objectives

As illustrated below

General goal //
At the end of the course, the student will be able to employ computer skills and office programs in the fields of specialization

Behavioral goals //

- 1- At the end of the course, the student will be able to recognize the most important principles and basic pillars of the computer.
- 2- At the end of the course, the student will be able to distinguish between different operating system tools
- 3- At the end of the course, the student will be able to determine the type of applied software he needs according to the type of problem
- 4- At the end of the course, the student will be able to design and implement files
- 5- At the end of the course, the student will be able to distinguish between hardware and software components

9.	Teaching and Learning Strategies
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies

10. Course Structure						
Week	h	Required Learning Outcomes	Lecture Topics	Lab Topics	Learning method	Evaluation method
1st	3	Understanding lecture	Microsoft Excel: <u>understanding basic terminology</u> (work sheet, work file, cell, cell pointer, cell content, row & column reference) <u>Building formula, Mathematical Operators, Hierarchy of main mathematical operation; Managing workbooks</u> (create new one; create from Template, enter data, moving around, saving; opening; closing workbooks)	Work with the principles of workbook and worksheet and their contents; working with mathematical operators; create worksheet, using template; show the different types of data, save works, closing workbook or closing programs, moving around the main excel window.	Lecture + Lab	Quick exam, Spot, Oral
2nd	3	Understanding lecture	<u>Manipulating the contents</u> (selecting cells; columns; rows; worksheet, using undo & redo, copying & moving data, changing column width & row height); <u>Auto filling</u> technique; deleting & editing content; <u>Deleting & insert row or column, formatting cell</u> (number; font; alignment; border; color and shading; protection of cells and work sheet)	Changing content, autofill data; manipulating worksheet and data, using the different option of formatting cell.	Lecture + Lab	Quick exam, Spot, Oral
3rd	3	Understanding lecture	<u>Creating simple and complex formula</u> using different types of write, <u>using absolute and relative address, understanding common error values; using common built in function</u> (Sum, Average, Max, Min, Count, Count A, Count Blank, If, Round, Sqrt, Today, Day 360, Left, Right, Mid< Trim); <u>Copying formula; insert & deleting worksheet; formatting tables</u> using auto format.	Display OS's basic, on/ shutdown computer, log off, log on, restart, sleep, using mouse (pointing, selecting, dragging and execution)	Lecture + Lab	Quick exam, Spot, Oral
4th	3	Understanding lecture	<u>Working with charts</u> (create chart, select chart elements, changing chart types, positioning &	Build different types of chart, customizing their objects; built	Lecture + Lab	Quick exam, Spot, Oral

			resizing chart, chart & axis titles, changing background and color effects, changing data series color, adding or removing legend & data labels & data tables & grid lines); <u>sorting data Ascending & Descending, sorting multiple fields, filtering data using Auto and Customize type; customizing printout using option, previewing & printing worksheet.</u>	database table, sort data, filter data, print database table or chart; changing print options.			
5th	3	<u>Understanding lecture</u>	<u>Understanding Power Point & Presentation:</u> What dose a presentation include; <u>working with presentation</u> (Creating; saving; closing; opening presentation); <u>Moving around</u> in the presentation; <u>Managing the slides</u> (inserting; deleting; rearranging slides; changing layout, <u>changing or modifying themes.</u>	Create presentations, Create using templet, insert slide, change slide layout, save work.	Lecture + Lab	Quick exam, Spot, Oral	
6th	3	<u>Understanding lecture</u>	<u>Managing slide objects</u> (Using select versus edit mode; manipulating Text; create table & charts; inserting pictures or clip art or multimedia); <u>creating a Master slide; animating objects</u> (Customizing the animation. Applying Slide Transitions); <u>Running the slide show</u> and set up the presentation; <u>previewing and printing presentation .</u>	Open previous work, insert image, clipart, worksheet, sound, video as you need, put transition time with in slide and transition time between slides, rum slide show.	Lecture + Lab	Quick exam, Spot, Oral	
7th	3	<u>Understanding lecture</u>	Part 3 : Living On line <u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Exercise of checking connection of your computer system to the internet, and use a simple utility (ping request) to test whether your internet connection is functioning or not; open web sites of different domains (. Net, .org, .com,.edu)	Lecture + Lab	Quick exam, Spot, Oral	
8th		Mid-Term Review & Practical Skills Assessment					Quick exam, Spot, Oral
9th	3	<u>Understanding lecture</u>	<u>The internet, Browsers and the World Wide Web</u> (the internet, the world wide web, web browsers) ; <u>understanding web site addresses</u> (web site protocols, resource names)	Open different web browsers (Internet explorer, Firefox, Google Chrome and others) to explain their functions (Addressing, Uploading and Downloading, and Searching) and features (Back, Forward and Refresh Buttons, Home Page, Tabs, Favorites/ Bookmarks, Checking the History, Plug-ins/ Add-one); connect to the internet; Identifying Networks and their types.	Lecture + Lab	Quick exam, Spot, Oral	
10th	3	<u>Understanding lecture</u>	<u>Common web site/page elements; browser features and functions</u> (browser function, browser features) ; <u>getting connected ; Defining network; Advantages of using networks; understanding Local Area Network (LAN) and Wide Area Network (WAN); connected to the internet</u> (Dial – up connection, direct connection); <u>Domain and sub Domain, Needs for security & firewalls</u>	Exercise of creating E-mail (Google mail, Yahoo mail, Social network account (face book and Twitter); Blogs; and message using face book messenger, Skype and other, Perform other activities in social networks (status, privacy, and Security)	Lecture + Lab	Quick exam, Spot, Oral	
11th	3	<u>Understanding lecture</u>	Digital communication: <u>How can I communicate with other ?</u> (Electronic Mail, instant messages, text messages, VoIP, video conferencing, chat room, social networking site, blogs, presence, and standards for electronic communication)	Explore E-mail properties: Security (Password, Password Recovery information, and Alternative e-mail) (To , CC, BCC, and Subject), Attaching file to email, Building contacts list and others.	Lecture + Lab	Quick exam, Spot, Oral	
12th	3	<u>Understanding lecture</u>	<u>Working with Email</u> (usernames, passwords and credentials)	Sending E mail using Outlook (With exploring all properties above)	Lecture + Lab	Quick exam, Spot, Oral	
13th	3	<u>Understanding lecture</u>	<u>Using Microsoft outlook</u> (creating new messages, working with attachments, managing spam, emptying the junk E-mail folder, automating outlook)	Try to make strong password; try to remove files without recoverable ability (ex: CCleaner free application)	Lecture + Lab	Quick exam, Spot, Oral	
14th	3	<u>Understanding lecture</u>	Digital citizenship : <u>Identifying Ethical Issues</u> (Understanding Intellectual property, copyrights and licensing); <u>Protecting Your Data or Computer</u> (Identifying Soft ware Threats, Understanding Viruses), <u>Protecting Yourself While Online; Buying Online; How Much Information Should I share ?</u> Protecting Your Privacy)	Try web search for certain keywords using different search engine(ex; Google, Bing); also search multimedia files (pictures, audio or video in specialized search engine (ex: flickr.com, youtube.com)	Lecture + Lab	Quick exam, Spot, Oral	
15th	3		<u>Finding Information: Searching For Information</u> (Different Types of Web Sites, Searching a Specific Web Site); <u>Using Search Engine Technology</u> (Understanding How Search Engines Work) <u>Narrowing the search; evaluating the information</u> (reliability and relevance; validity and authenticity; objectivity and bias	Fine specific and accurate information using google (<i>reduce no. of keywords, use quotation marks, use OR, search with certain site, and others</i>)			

11.

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.

Theoretical Assessment

Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total

on						
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)	Nothing					
Main references (sources)	Computer Skills and Applications					
Recommended books and references (scientific journals, reports...)	1-Computer Literacy BASICS: A Comprehensive Guide to IC3 2-IC3: Internet and Computing Printed Book					
Electronic References, Websites	Browse the Google network using the desired subject key.					

**Course Description
Guide
English language**

2024

Course Description Form

1. Course Name:	
English language	
2. Course Code:	
M.Req. 01	
3. Semester / Year	
(Second semester , Second Year)	
4. Description Preparation Date:	
9 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(30 Hr. / 2 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Lecturer. Mohammad Ali Ahmed Email: mohamedali976@yahoo.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal //	
<ul style="list-style-type: none">• Teach practical, real life English that is relevant to the students' lives with new topics and themes grounded in today's reality.• Bring unit topics to life with the new unit opener page which include inspiring photographs and accompanying video introductions engage students with the unit topic.• Download and adapt material for your students with the Teacher's Resource Centre which provides all your Headway resources, stored in one place to save you time.• Students can look again at activities from previous lessons, do extra skills practice, and check their progress with instant feedback.	
Specific (Behavioral) goals //	
1.know students with essential information in the English language in association with reading, writing and speaking skills, and knowing more English vocabulary.	

2.To understand pronouns, questions and short answers, tenses (present, past and future), adjective, adverb, prepositions of place, punctuation marks and practicing writing.

3.This module works towards enhancing students' English language competencies along with their technical or professional knowledge.

4.Enhance students' communication skills in English can result in better job opportunities in the future

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	2	Questions • Tense revision • Right word, wrong word • Social expressions	Unit 1: Getting to know you	Lecture ask questions Discussion brainstorming	Oral and written Examination
2-	2	Present tenses • have!/have got • Things I like doing • Making conversation	Unit 2: Whatever makes you happy	Lecture ask questions Discussion brainstorming	Oral and written Examination
3-	2	Past Simple and Continuous • Adverbs • Saying when	Unit 3: What's in the news?	Lecture ask questions Discussion brainstorming	Oral and written Examination
4-	2	Expressing quantity • something/no one ... • Articles. A piece of ... Con you come for dinner?	Unit 4: Eat, drink, and be merry!	Lecture ask questions Discussion brainstorming	Oral and written Examination
5-	2	Verb patterns • Future forms • Phrasal verbs • Expressing doubt and certainty	Unit 5: Looking forward	Lecture ask questions Discussion brainstorming	Oral and written Examination
6-	2	What ... • Comparatives and superlatives • Synonyms and antonyms • What's on?	Unit 6: The way I see it	Lecture ask questions Discussion brainstorming	Oral and written Examination

7-	2	Present Perfect • for and since • ever and never Word formation • Agree with me!	Unit 7: Living history	Lecture ask questions Discussion brainstorming	Oral and written Examination
8-	2		Mid exam		
9-	2	have to/don't have to • should/must • Things to wear • At the doctor's	Unit 8: Girls and boys	Lecture ask questions Discussion brainstorming	Oral and written Examination
10-	2	Past Perfect and narrative tenses • Joining sentences • Feelings	Unit 9: Time for a story	Lecture ask questions Discussion brainstorming	Oral and written Examination
11-	2	Passives • Compound nouns • Words that go together • On the phone	Unit 10: Our interactive world	Lecture ask questions Discussion brainstorming	Oral and written Examination
12-	2	Present Perfect Continuous • Tense review Birth, marriage, and death • Good news, bad news	Unit 12: Life's what you make it!	Lecture ask questions Discussion brainstorming	Oral and written Examination
13-	2	If + will/might/ would conditionals • Prepositions • Thank you and goodbye!	Unit 13: Just wondering ...	Lecture ask questions Discussion brainstorming	Oral and written Examination
14-	2		Revision		
15-	2		2nd mid Exam		

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Report	Monthly Exam	Written Exam	Total
5	5	5	5	20	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	New Headway / Pre-Intermediate, John and Liz Soars, Oxford University Press
Recommended books and references (scientific journals, reports...)	Understanding and Using English Grammar, 5th Edition, Betty S. Azar Stacy A. Hagen.
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Biostatistics**

2024

Course Description Form

1.	Course Name:					
	Biostatistics					
2.	Course Code:					
	MAUC2207					
3.	Semester / Year					
	(2 nd semester ,second Year)					
4.	Description Preparation Date:					
	9 /4 /2024					
5.	Available Attendance Forms:					
	Weekly attendance					
6.	Number of Credit Hours (Total) / Number of Units (Total)					
	(45 Hr. / 2 credits)					
7.	Course administrator's name (mention all, if more than one name)					
	Name: Lecture Dr. Ghada salim mohammed Email: ghaa2090@mauc.edu.iq					
8.	Course Objectives					
	As illustrated below					
	<p>General goal: At the end of the course, the student will be able to choose the appropriate sample, distinguish and classify information, analyze differences in measurements, and analyze simple models using appropriate statistical methods.</p> <p>Behavioral goals //</p> <p>1- At the end of the course, the student will be able to collect and classify data 2- At the end of the course, the student will be able to find statistical indicators and analyze them</p> <p>At the end of the course, the student will be able to measure the degree of relationship between variables</p>					
9.	Teaching and Learning Strategies					
Strate	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	h	Required Learning Outcomes	Lecture Topics	Lab topics	Learning method	Evaluation method
1st	3	Understanding lecture	Introduction Measurement scale of variables. Statistical tables.	Introduction to spss	Lecturer+ lab	Quick exam, Spot, Oral
2nd	3	Understanding lecture	Graphical presentation.	Defining the most important basic windows and menus of the program	Lecturer+ lab	Quick exam, Spot, Oral
3rd	3	Understanding lecture	Arithmetical presentation. a-Central tendency Measurements (mean-Arithmetica mean)(Weight mean of score	Definition of types of variables	Lecturer+ lab	Quick exam, Spot, Oral
4th	3	Understanding lecture	Geometric mean . Harmonic mean , mode . median .	Know how to design tables and enter data and data encoding And put the data	Lecturer+ lab	Quick exam, Spot, Oral

5th	3	Understanding lecture	b- Dispersion measurements . Quartiles . Deciles . percentiler . mean deviation . standard deviation . variance	into the program Selecting the appropriate scale to test and analyze the data	Lecturer+ lab	Quick exam, Spot, Oral
6th	3	Understanding lecture	Range . root mean square . Interquartile range . quartile deviation. Coefficient of variation . coefficient of quartile . standardized variable (standard scores)	Determine the variable data to be analyzed and achieve the statistical process	Lecturer+ lab	Quick exam, Spot, Oral
7th	3	Understanding lecture	c- Coefficient of skewness . Coefficient of momental skewness . presons first Coefficient of skewness . quartile Coefficient of skewness d Coefficient of kurtosis . Coefficient of momental kurtosis	Applying descriptive statistics methods to data	Lecturer+ lab	Quick exam, Spot, Oral
8th	Mid-Term Review Assessment					
9th	3	Understanding lecture	Probability . Introduction . definitions- definition of probability probability theorem	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
10th	3	Understanding lecture	Conditional prob. Mutanly exclusive . independence , ranges theorem	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
11th	3	Understanding lecture	Random variable . probability eunction . mathematical expectation – variance . probability distribution . discrete case continuous case	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
12th	3	Understanding lecture	Sampling distribution	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
13th	3	Understanding lecture	Estimation . summary of confidence interval	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
14th	3	Understanding lecture	Summary of significant tests	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral
15 th	3	Understanding lecture	Testing for the value of specified parameter (s)	Discussing the results (tables and figures) Conduct data analysis and discuss the results (tables and drawings)	Lecturer+lab	Quick exam, Spot, Oral

11. 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.

Practical exam	Daily Preparation	Daily Exam	Reports	Monthly Exam	Final exam	Total
15	5	5	5	10	Theoretical 35+practical 25	100

12.	Learning and Teaching Resources					
Required textbooks (curricular books)			Nothing			
Main references (sources)			Principles and Practice of Biostatistics - E-book https://www.amazon.com/Principles-Practice-Biostatistics-book-Antonisamy-ebook/dp/B0722PR77B			
Recommended books and references (scientific journals, reports...)			Scientific journals and websites			
Electronic References, Websites			Browse the Google network using the desired subject key.			

**Course Description
Guide
Basics of Surgery 2**

2024

Course Description Form

1. Course Name:	
Basics of Surgery 2	
2. Course Code:	
ATD2204	
3. Semester / Year	
(2 nd semester , 2 nd Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(45 Hr. / 2 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Mohanad Abdul Ameer Email: crush.avenue81@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic technicians in surgery is to provide comprehensive support to anesthesiologists and surgeons by ensuring the safe and effective delivery of anesthesia. This includes preparing anesthesia equipment and medications, monitoring patient vital signs during surgery, and assisting in the management of potential anesthetic complications. The aim is to enhance patient care through meticulous preparation and vigilant monitoring, thereby contributing to successful surgical outcomes and optimizing patient safety.	
Specific (Behavioral) goals // 1. Skill Acquisition: Anesthetic technicians will acquire the technical skills necessary to operate and maintain anesthesia delivery systems and monitoring equipment proficiently. 2. Patient Monitoring: Technicians will be adept at continuously monitoring patient vital signs and anesthesia depth, adjusting parameters as directed by the anesthesiologist to maintain patient safety. 3. Emergency Response: Technicians will be trained to recognize	

signs of anesthesia-related complications and assist in the management of emergency situations, including the execution of basic life support (BLS) and advanced cardiovascular life support (ACLS) protocols.

4. **Team Communication:** Develop effective communication skills to work collaboratively with the surgical and anesthesia teams, ensuring clear and precise information transfer during critical moments.
5. **Knowledge Application:** Apply theoretical knowledge of pharmacology and physiology relevant to anesthesia to support decision-making processes and enhance patient care.

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	3	Understanding and assimilation	The cell & cell injury, necrosis	Brainstorming strategy	Oral and written Examination
2-	3	Understanding and assimilation	Inflammation (acute & chronic)	Teamwork strategy.	Oral and written Examination
3-	3	Understanding and assimilation	Wounds , wound healing, scars	Project strategy	Oral and written Examination
4-	3	Understanding and assimilation	Surgical microbiology	Discussion strategy	Oral and written Examination
5-	3	Understanding and assimilation	Abscess, cellulites, non-specific infections	Story strategy	Oral and written Examination
6-	3	Understanding and assimilation	Gas Gangrene, other types of Gangrene [causes]	Problem solving strategy	Oral and written Examination
7-	3	Understanding and assimilation	Specific infections	Modeling learning strategy	Oral and written Examination
8-	3	Understanding and assimilation	Anthrax, syphilis:-	Teamwork strategy.	Oral and written Examination
9-	3	Understanding and assimilation	T.B	Combining different strategies	Oral and written Examination
10-	3	Understanding and assimilation	Surgical immunopathology	Combining different strategies	Oral and written Examination
11-	3	Understanding and assimilation	Ulcers, sinuses, fistula	Combining different strategies	Oral and written Examination
12-	3	Understanding and assimilation	Sterile precautions, AIDS	Teamwork strategy.	Oral and written Examination

13-	3	Understanding and assimilation	Acid-Base balance, Fluid-balance, types of I.V. Fluids	Project strategy	Oral and written Examination
14-	3	Understanding and assimilation	Calcium metabolism, calcifications	Combining different strategies	Oral and written Examination
15-	3	Understanding and assimilation	Blood fractions & transfusion	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Practical	Report	Monthly Exam	Final Exam	Total
5	5	15	5	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	<p>Process Design: Making it Work: A Practical Guide to What to do When and How for Facilitators, Consultants, Managers and Coaches , Book overview.</p> <p>Popular Process Engineering Books ; Principles of Process Engineering S. M. enderson ; Chemical Process Equipment: Selection and Design James R. Couper ;</p> <p>Apply fundamental concepts from statics, dynamics, and mechanics of materials to the design of machine components and/or systems. — Apply static and fatigue</p>
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for Mining Engineering students, scientific journals and periodicals related to the subject, Engineering Design reports.
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Basics of Anesthesia
2**

2024

Course Description Form

1. Course Name:	
Basics of Anesthesia 2	
2. Course Code:	
ATD2201	
3. Semester / Year	
(second semester , 2nd Year)	
4. Description Preparation Date:	
5 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Mohannad Athar Tawfeeq Email: mohannadathar@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // At the end of the course, the student will be able to know how to anesthetize the patient and deal with him in intensive care unit.....	
Specific (Behavioral) goals // Introducing the student to the basic principles related to the foundations of anesthesia and intensive care. Own goal: 1- The student will be introduced to anesthesia and intensive care. 2- Knowledge of basic sciences such as physiology and diseases and how to deal with them while administering anesthesia. A3- The student learns how to perform cardiopulmonary resuscitation. A4-Knowing emergency situations and how to deal with them. A5- Knowing the complications of anesthesia medications and how to treat and reduce them. A6- The student learns about the types of anesthesia (general, spinal, and local). 7- Know how to prepare for cold and emergency surgeries.	

- 8- Knowledge of dealing with all branches of surgery, gynecology, oncology and children.
- 9- Knowledge of dealing with intensive care patients.
- 10- Knowledge of how to deal with monitoring, breathing, and resuscitation devices.
- 11- Knowledge of treatment protocols for emergency cases.

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> • The scientific material is delivered theoretically by the teacher • The teacher supervises the students' practical training and corrects their scientific ideas • Discussion strategy • A strategy for problem solving or problem-based learning • Story strategy • Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
2.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
3.	4	Understanding the lecture	Drugs used in premedication & sedative, analgesic drugs in details	Lecture and practical application	Theoretical and practical exam
4.	4	Understanding the lecture	Anesthetic crises(laryngospasm, bronchospasm, hypoxia during anesthesia, malignant hyperthermia)	Lecture and practical application	Theoretical and practical exam

5.	4	Understanding the lecture	Anesthetic crises(laryngospasm, bronchospasm, hypoxia during anesthesia, malignant hyperthermia)	Lecture and practical application	Theoretical and practical exam
6.	4	Understanding the lecture	Intravenous fluid types and usage	Lecture and practical application	Theoretical and practical exam
7.	4	Understanding the lecture	Intravenous fluid types and usage	Lecture and practical application	Theoretical and practical exam
8.	4	Understanding the lecture	Blood and blood products	Lecture and practical application	Theoretical and practical exam
9.	4	Understanding the lecture	Blood and blood products	Lecture and practical application	Theoretical and practical exam
10.	4	Understanding the lecture	Surgical position and their complications	Lecture and practical application	Theoretical and practical exam
11.	4	Understanding the lecture	Surgical position and their complications	Lecture and practical application	Theoretical and practical exam
12.	4	Understanding the lecture	Cardiopulmonary resuscitation CPR	Lecture and practical application	Theoretical and practical exam
13.	4	Understanding the lecture	Cardiopulmonary resuscitation CPR	Lecture and practical application	Theoretical and practical exam

14.	4	Understanding the lecture	Intraoperative patient monitoring	Lecture and practical application	Theoretical and practical exam
15.	4	Understanding the lecture	Safety measures in operating room	Lecture and practical application	Theoretical and practical exam

11. 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.

Practical	Theoretical	Final exam	Total
15	25	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Oxford handbook of clinical anesthesia , Morgan and Mikhail's Clinical Anesthesiology 6 th edition
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Applied Physiology 2**

2024

Course Description Form

1.	Course Name:					
	Applied Physiology 2					
2.	Course Code:					
	ATD2203					
3.	Semester / Year					
	(2 nd semester , 2 nd Year)					
4.	Description Preparation Date:					
	18 /4 /2024					
5.	Available Attendance Forms:					
	Weekly attendance					
6.	Number of Credit Hours (Total) / Number of Units (Total)					
	(60 Hr. / 3 Unit)					
7.	Course administrator's name (mention all, if more than one name)					
	Name: Lecture Dr. Yasir Wisam Issa Email: yassirwesam93@gmail.com Dr. Mohammad Abdul Qader					
8.	Course Objectives					
As illustrated below						
General goal: The general goal for students of applied physiology for anesthetic techniques is to understand the physiological mechanisms and responses of the human body to anesthesia. This includes gaining a thorough knowledge of how various anesthetic agents interact with body systems during surgical procedures.						
Specific (Behavioral) goals:						
<ol style="list-style-type: none"> 1. Master Physiological Concepts: Understand the fundamental physiological processes affected by anesthesia. 2. Apply Knowledge Practically: Apply this physiological knowledge to enhance the safety and effectiveness of anesthesia administration. 3. Analyze Patient Responses: Analyze and interpret physiological responses in patients undergoing anesthesia to optimize care. 4. Adapt Techniques: Adapt anesthetic techniques based on individual patient physiological conditions and responses. 5. Engage in Continuous Learning: Stay updated with the latest research and advancements in applied physiology relevant to anesthesia. 						
9.	Teaching and Learning Strategies					
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies					
10.	Course Structure					
Week	h	Required Learning Outcomes	Lap topics	Theoretical Topics	Learning method	Evaluation method
1st	4	Understanding lecture	Measurement of inspiratory reserve volume (IRV) and	Autonomic control on C.V.S.	Lecture + Lab	Quick exam, Spot, Oral

			expiratory reserve volume (ERV).			
2nd	4	Understanding lecture	Repeat all the respiratory tests: observe and the discuss.	Starlings law of the heart	Lecture + Lab	Quick exam, Spot, Oral
3rd	4	Understanding lecture	Artificial respiration (mouth to mouth breathing).	Pressure drops from Lt. Side of the circulation to Rt.Side	Lecture + Lab	Quick exam, Spot, Oral
4th	4	Understanding lecture	The muscular system . flow-regulation (extrinsic and intrinsic factors)	Pressure changes in Lt. Ventricle & aorta during the cardiac cycle.	Lecture + Lab	Quick exam, Spot, Oral
5th	4	Understanding lecture	Effect of temperature on the muscle twitch.	Pressure changes in Rt. Ventricle & pulmonary artery during the cardiac cycle	Lecture + Lab	Quick exam, Spot, Oral
6th	4	Understanding lecture	Effect of fatigue on the muscle twitch.	Starlings law of the capillaries.	Lecture + Lab	Quick exam, Spot, Oral
7th	4	Understanding lecture	Effect of repeat stimulus on the skeletal muscle contraction.	Excitation – contraction coupling.	Lecture + Lab	Quick exam, Spot, Oral
8th	4	Mid-Term Review & Practical Skills Assessment	Effect of signal renal blood flow.	Effect of tachycardia, tachycardia + hypotension, tachycardia + hypotension-blood loss on the C.V.S.		Quick exam, Spot, Oral
9th	4	Understanding lecture	Examination of motor nervous system.	Repeat	Lecture + Lab	Quick exam, Spot, Oral
10th	4	Understanding lecture	Examination of sensory nervous system.	Critical closing pressure phenomenon.	Lecture + Lab	Quick exam, Spot, Oral
11th	4	Understanding lecture	Clinical examination of chest. Oscultation of lung respiratory sounds.	Blood distribution into vital organs.	Lecture + Lab	Quick exam, Spot, Oral
12th	4	Understanding lecture	Reflexes examination.	General knowlege-struction, type of I.V. fluid-clinical application.	Lecture + Lab	Quick exam, Spot, Oral
13th	4	Understanding lecture	Repeat .	Hb. Dissociation – Association curves.	Lecture + Lab	Quick exam, Spot, Oral
14th	4	Understanding lecture	Physical examination of the patient.	O ₂ flux+pre-oxygenation in anaesthesia, why increase FIO ₂	Lecture + Lab	Quick exam, Spot, Oral
15 th	4	Final Review and Integration	Repeat.	Autonomic control on C.V.S.	Lecture + Lab	Quick exam, Spot, Oral

11.						
	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.					
Theoretical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
5	5	5	5	5	35	60
Practical Assessment						
Daily Preparation	Daily Exam	Oral Exam	Reports	Monthly Exam	Final exam	Total
2	2	2	2	7	25	40
12.	Learning and Teaching Resources					
Required textbooks (curricular books)			Nothing			
Main references (sources)			<ol style="list-style-type: none"> 1. Berne & Levy Physiology" 2. "Guyton and Hall Textbook of Medical Physiology" 3. "Ganong's Review of Medical Physiology" 4. Principles of Biochemistry 			
Recommended books and references (scientific journals, reports...)			"Anesthesia & Analgesia" "Journal of Applied Physiology" "British Journal of Anaesthesia"			
Electronic References, Websites			Browse the Google network using the desired subject key.			

**Course Description
Guide
Basics of Medicine 2**

2024

Course Description Form

1. Course Name:	
Basics of Medicine 2	
2. Course Code:	
ATD2205	
3. Semester / Year	
(2nd semester , 2ND Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Hazim Abdul Razaq Lecturer Dr. Salah Aldeen Abdul Nabi	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic techniques students specializing in internal medicine is to develop a comprehensive understanding of the principles and practices of anesthesia as they relate to the diagnosis, treatment, and management of internal diseases. Students will gain proficiency in applying anesthesia techniques safely and effectively in various internal medicine procedures.	
Specific (Behavioral) goals // <ol style="list-style-type: none">1. Skill Development: Master technical skills required for administering anesthesia in internal medicine, including sedation management for endoscopic procedures and pain management for chronic conditions.2. Patient Assessment: Become proficient in assessing internal medicine patients pre-operatively to identify any potential anesthetic risks and plan appropriate anesthesia care.3. Critical Thinking: Enhance the ability to make informed decisions regarding anesthetic techniques based on a patient's medical history and current health status.4. Interdisciplinary Collaboration: Develop skills for effective collaboration with internal medicine specialists to ensure comprehensive patient care.5. Continuous Learning: Engage in ongoing education to stay updated with the latest advancements in anesthetic techniques and internal medicine practices.	
9. Teaching and Learning Strategies	

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-3	3	Understanding and assimilation	Diseases of the kidney / introduction major manifestations / investigations.	Brainstorming strategy	Oral and written Examination
4-6	3	Understanding and assimilation	Hematology/ introduction / major manifestations/ investigations.	Teamwork strategy.	Oral and written Examination
7-8	3	Understanding and assimilation	Anemia/ Introduction/ major monifestation classification investigations.	Project strategy	Oral and written Examination
9	3	Understanding and assimilation	Diseases of the endocrine gland/ introduction.	Discussion strategy	Oral and written Examination
10	3	Understanding and assimilation	Hypothalamus/ pituitary/ thyroid/ parathyroid/ adrenals/ gonads.	Story strategy	Oral and written Examination
11	3	Understanding and assimilation	Diseases of connective tissues and Rheumatology/ introduction/major manifestations/ investigations.	Problem solving strategy	Oral and written Examination
12	3	Understanding and assimilation	Diseases of the nervous system/ introduction	Modeling learning strategy	Oral and written Examination
13	3	Understanding and assimilation	Major manifestations/ investigations.	Teamwork strategy.	Oral and written Examination
14	3	Understanding and assimilation	Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis.	Combining different strategies	Oral and written Examination
15	3	Understanding and assimilation	Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure).	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Practical	Monthly Exam	Final Exam	Total
5	5	5	10	15	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
---	---------

Main references (sources)	Harrison's Principles of Internal Medicine" "Cecil Essentials of Medicine" "Davidson's Principles and Practice of Medicine" "Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine" "Current Medical Diagnosis and Treatment" "The Washington Manual of Medical Therapeutics" "Oxford Handbook of Clinical Medicine" "Goldman-Cecil Medicine" "Mayo Clinic Internal Medicine Board Review" "CMDT 2021: Current Medical Diagnosis & Treatment"
Recommended books and references (scientific journals, reports...)	The New England Journal of Medicine (NEJM) The Lancet Journal of the American Medical Association (JAMA) Annals of Internal Medicine BMJ (British Medical Journal) Internal Medicine Journal Journal of Internal Medicine American Journal of Medicine European Journal of Internal Medicine Archives of Internal Medicine
Electronic References, Websites	Browse the Google network using the desired subject key.

Course Description Guide
Basics of Anesthetic
Equipment 2+1

2024

Course Description Form

1. Course Name:	
Basics of Anesthetic Equipment	
2. Course Code:	
ATD2102	
3. Semester / Year	
(First and second semester , 2nd Year)	
4. Description Preparation Date:	
12 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Saif Khalid Salsal	
Email: drsaif3000@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal //	
At the end of the course, the student will be able to know the Basics related to Anesthetic Equipment and how to use and repaired	
Specific (Behavioral) goals //	
Introducing the student to the basic principles related to the Anesthetic Equipment and intensive care.	
Own goal:	

- 1- The student must know about the science of Anesthetic Equipment
- 2- The student must know at the end of year how to operate the Anesthetic Equipment and Machine
- 3- The student must know how to dismantling the Equipment and re-erecting
- 4-the student must know how to maintenance use of Anesthetic Equipment and Machine

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none"> • The scientific material is delivered theoretically by the teacher • The teacher supervises the students' practical training and corrects their scientific ideas • Discussion strategy • A strategy for problem solving or problem-based learning • Story strategy • Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	
			Practical and theoretical		
1.	4	Understanding the lecture	Medical gas supply	Lecture and practical application	Theoretical and practical exam
2.	4	Understanding the lecture	Piped gas supply	Lecture and practical application	Theoretical and practical exam
3.	4	Understanding the lecture	Cylinder Manifold	Lecture and practical application	Theoretical and practical exam
4.	4	Understanding the lecture	Liquid Oxygen	Lecture and practical application	Theoretical and practical exam

5.	4	Understanding the lecture	Oxygen concentrator	Lecture and practical application	Theoretical and practical exam
6.	4	Understanding the lecture	Airway Devices and Tools	Lecture and practical application	Theoretical and practical exam
7.	4	Understanding the lecture	Specially designed tracheal tubes	Lecture and practical application	Theoretical and practical exam
8.	4	Understanding the lecture	Anesthetic Machine	Lecture and practical application	Theoretical and practical exam
9.	4	Understanding the lecture	Pressure regulator	Lecture and practical application	Theoretical and practical exam
10.	4	Understanding the lecture	Flowmeters	Lecture and practical application	Theoretical and practical exam
11.	4	Understanding the lecture	Check List	Lecture and practical application	Theoretical and practical exam
12-15	4	Understanding the lecture	Monitors	Lecture and practical application	Theoretical and practical exam

11. 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.

Daily exam	Practical exam	Monthly theoretical exam (1+2)	Final written and clinical	Total
5	15	20	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	ESSENTIAL OF Anaesthetic Equipment Baha Al-shaikh Simon Stacey, Morgan and Mikhail's Clinical Anesthesiology 6 th edition
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines

Electronic References, Websites

Browse the Google network using the desired subject key.

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

Description of the academic program

The Third stage

Annual system

2024

Course Description Guide ICU1

2024

Course Description Form

1. Course Name:

ICU1

2. Course Code:

ATD3102

3. Semester / Year

3RD Class/ yearly

4. Description Preparation Date:

31/3 /2024

5. Available Attendance Forms:

Weekly (2hTheoretical & 5hPractical)

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

210h/ 9 credits

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

Name: Dr.Ali Dhiaa Abood

Email: dr.ali.dhiaa@gmail.com

8. Course Objectives

Course Objectives

As illustrated below .

General goal //

1. Understand the responsibilities that will be placed upon him.
2. Teaching the subject aims to familiarize the student with the basics of using and maintaining devices.
3. Determining the appropriate training pattern according to the work site.
4. Familiarity with all anesthesia devices.
5. Act wisely on how to manage the patient in the event of an emergency situation

Specific (Behavioral) goals //

A- Knowledge and Understanding

A1. Teaching the course aims to provide students with knowledge about the basics Of using and maintaining intensive care devices in intensive care units.

B. Subject-specific skills

B1. At the end of the year, the student will be able to maintain the

equipment.

B2. Operating the devices

B3. Disassemble and re-install the devices

C. Thinking Skills

C1. Intensive care is an essential science for students of medical technical colleges

C2. A clear perception of all anesthesia devices from a medical point of view

D. Transferred general and qualification skills (other skills related to

Employability and personal development).

D1. To be able to understand and operate anesthesia machines

D.2. Compliance with all recommendations and ethics related to

professional behavior

D 3. To love his profession

D. Creativity in his field of work

9. Teaching and Learning Strategies

Strategy

Brainstorming strategy

Modeling learning strategy

Group work or cooperative learning strategy

Discussion strategy

Project strategy

A strategy for problem solving or problem-based learning

Story strategy.

Combining different strategies

10. Course Structure

Assessment Method	Teaching Method	Unit/Module or Topic Title	ILOs	Hours	Week
Short exam	Lecture + Lab	Introduction to ICU	understand the lecture	7	1+2
Short exam	Lecture + Lab	Lung physiology and volumes	understand the lecture	7	3+4
Short exam	Lecture + Lab	O2 and CO2 in blood	understand the lecture	7	5+6
Short exam	Lecture + Lab	Respiratory failure	understand the lecture	7	7+8
Short	Lecture + Lab	CPAP& BIPAP	understand the	7	9+10

exam			lecture		
Short exam	Lecture + Lab	Modes of ventilation	understand the lecture	7	11+12
Short exam	Lecture + Lab	Body fluids & electrolytes	understand the lecture	7	13+14
Short exam	Lecture + Lab	Shock	understand the lecture	7	15+16
Short exam	Lecture + Lab	Autonomic nervous system	understand the lecture	7	17+18
Short exam	Lecture + Lab	Cardiac arrest	understand the lecture	7	19+20
Short exam	Lecture + Lab	Acid base balance	understand the lecture	7	21+22
Short exam	Lecture + Lab	HCO ₃ & ABG	understand the lecture	7	23+24
Short exam	Lecture + Lab	Intra cranial pressure	understand the lecture	7	25+26

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Practical	Monthly Exam	Written Exam	Total
5	5	5	15	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	ICU book, handbook of ICU
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Scientific journals.
Electronic References, Websites	Electronic library.

Course Description Guide Medicine 2

2024

Course Description Form

1. Course Name:	
Medicine 2	
2. Course Code:	
ATD3104	
3. Semester / Year	
(yearly , 3 rd Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 3 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Hazim Abdul Razaq Lecturer Dr. Salah Aldeen Abdul Nabi	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic techniques students specializing in internal medicine is to develop a comprehensive understanding of the principles and practices of anesthesia as they relate to the diagnosis, treatment, and management of internal diseases. Students will gain proficiency in applying anesthesia techniques safely and effectively in various internal medicine procedures.	
Specific (Behavioral) goals // <ol style="list-style-type: none">1. Skill Development: Master technical skills required for administering anesthesia in internal medicine, including sedation management for endoscopic procedures and pain management for chronic conditions.2. Patient Assessment: Become proficient in assessing internal medicine patients pre-operatively to identify any potential anesthetic risks and plan appropriate anesthesia care.3. Critical Thinking: Enhance the ability to make informed decisions regarding anesthetic techniques based on a patient's medical history and current health status.4. Interdisciplinary Collaboration: Develop skills for effective collaboration with internal medicine specialists to ensure comprehensive patient care.5. Continuous Learning: Engage in ongoing education to stay updated with the latest advancements in anesthetic techniques and internal medicine practices.	
9. Teaching and Learning Strategies	

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
2+1	5	Understanding and assimilation	Jaundice: classification, causes, clinical features, diagnosis.	Brainstorming strategy	Oral and written Examination
4+3	5	Understanding and assimilation	Peptic ulcer disease : Duodenal ulcer + Peptic ulcer disease : Gastric ulcer	Teamwork strategy.	Oral and written Examination
6+5	5	Understanding and assimilation	Renal failure: acute renal failure, chronic renal failure: clinical features, investigations and treatment.	Project strategy	Oral and written Examination
8+7	5	Understanding and assimilation	Ischemic heart diseases: clinical features, diagnosis, treatment.	Discussion strategy	Oral and written Examination
10+9	5	Understanding and assimilation	. Arrhythmias: cardiac arrest.	Story strategy	Oral and written Examination
12+11	5	Understanding and assimilation	Heart failure: definition, classification, causes, precipitating factors, investigations, treatment	Problem solving strategy	Oral and written Examination
14+13	5	Understanding and assimilation	Hypertension: definition, types: primary and secondary hypertension. complications, investigations/ treatment.	Modeling learning strategy	Oral and written Examination
16+15	5	Understanding and assimilation	. Infections of the respiratory tract: upper respiratory tract infections. Lower respiratory tract infections: pneumonia.	Teamwork strategy.	Oral and written Examination
18+17	5	Understanding and assimilation	Pulmonary T.B.	Combining different strategies	Oral and written Examination
20+19	5	Understanding and assimilation	Chronic obstructive pulmonary diseases: chronic bronchitis, emphysema, asthma.	Combining different strategies	Oral and written Examination
22+21	5	Understanding and assimilation	Tumors of the lung	Discussion strategy	Oral and written Examination
24+23	5	Understanding and assimilation	Vascular lung disease: pulmonary thrombo-embolism.	Story strategy	Oral and written Examination
26+25	5	Understanding and assimilation	. Respiratory failure : definition, types, management.	Problem solving strategy	Oral and written Examination
27	5	Understanding and assimilation	Diseases of the pleura: pleural effusion: types, causes, investigation,	Modeling learning strategy	Oral and written Examination

			treatment		
28	5	Understanding and assimilation	Diabetes mellitus: definition/clinical features/ complications/ treatment	Teamwork strategy.	Oral and written Examination
29	5	Understanding and assimilation	Cushing syndrome: diagnosis, clinical features, Investigations and treatment	Combining different strategies	Oral and written Examination
30	5	Understanding and assimilation	Disturbances of water and electrolytes.	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Practical	Monthly Exam	Final Exam	Total
5	5	5	10	15	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Harrison's Principles of Internal Medicine" "Cecil Essentials of Medicine" "Davidson's Principles and Practice of Medicine" "Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine" "Current Medical Diagnosis and Treatment" "The Washington Manual of Medical Therapeutics" "Oxford Handbook of Clinical Medicine" "Goldman-Cecil Medicine" "Mayo Clinic Internal Medicine Board Review" "CMDT 2021: Current Medical Diagnosis & Treatment"
Recommended books and references (scientific journals, reports...)	The New England Journal of Medicine (NEJM) The Lancet Journal of the American Medical Association (JAMA) Annals of Internal Medicine BMJ (British Medical Journal) Internal Medicine Journal Journal of Internal Medicine American Journal of Medicine

	European Journal of Internal Medicine Archives of Internal Medicine
Electronic References, Websites	Browse the Google network using the desired subject key.

Course Description Guide Surgery 2

2024

Course Description Form

1. Course Name:	
Surgery 2	
2. Course Code:	
ATD3105	
3. Semester / Year	
(Yearly , 3 rd Year)	
4. Description Preparation Date:	
18 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(60 Hr. / 5 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Mohammad Abdul Qader Ahmed Email: muhammedaa55@yahoo.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // The general goal for anesthetic technicians in surgery is to provide comprehensive support to anesthesiologists and surgeons by ensuring the safe and effective delivery of anesthesia. This includes preparing anesthesia equipment and medications, monitoring patient vital signs during surgery, and assisting in the management of potential anesthetic complications. The aim is to enhance patient care through meticulous preparation and vigilant monitoring, thereby contributing to successful surgical outcomes and optimizing patient safety.	
Specific (Behavioral) goals // <ol style="list-style-type: none">Skill Acquisition: Anesthetic technicians will acquire the technical skills necessary to operate and maintain anesthesia delivery systems and monitoring equipment proficiently.Patient Monitoring: Technicians will be adept at continuously monitoring patient vital signs and anesthesia depth, adjusting parameters as directed by the anesthesiologist to maintain patient safety.Emergency Response: Technicians will be trained to recognize	

signs of anesthesia-related complications and assist in the management of emergency situations, including the execution of basic life support (BLS) and advanced cardiovascular life support (ACLS) protocols.

4. **Team Communication:** Develop effective communication skills to work collaboratively with the surgical and anesthesia teams, ensuring clear and precise information transfer during critical moments.
5. **Knowledge Application:** Apply theoretical knowledge of pharmacology and physiology relevant to anesthesia to support decision-making processes and enhance patient care.

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-	4	Understanding and assimilation	Digestive Tract (GIT) General Review & Surgical Approaches	Brainstorming strategy	Oral and written Examination
2-	4	Understanding and assimilation	Salivary glands	Teamwork strategy.	Oral and written Examination
3-	4	Understanding and assimilation	Tongue & oral cavity	Project strategy	Oral and written Examination
4-	4	Understanding and assimilation	Oesophagus	Discussion strategy	Oral and written Examination
5-	4	Understanding and assimilation	Stomach & duodenum	Story strategy	Oral and written Examination
6-	4	Understanding and assimilation	Liver	Problem solving strategy	Oral and written Examination
7-	4	Understanding and assimilation	Gall bladder & bile ducts	Modeling learning strategy	Oral and written Examination
8-	4	Understanding and assimilation	Spleen & pancreas	Teamwork strategy.	Oral and written Examination
9-	4	Understanding and assimilation	Small & large intestine	Combining different strategies	Oral and written Examination
10-	4	Understanding and assimilation	Intestinal obstruction & fistula	Combining different strategies	Oral and written Examination
11-	4	Understanding and assimilation	Vermiform appendix , peritoneum	Combining different strategies	Oral and written Examination
12-	4	Understanding and assimilation	Rectum & anus	Teamwork strategy.	Oral and written Examination

13-	4	Understanding and assimilation	Abdominal wall & Hernia	Project strategy	Oral and written Examination
14-	4	Understanding and assimilation	Breast	Combining different strategies	Oral and written Examination
15-	4	Understanding and assimilation	Urinary tract: surgical anatomy, Congenital anomalies, Investigations	Combining different strategies	Oral and written Examination
16	4	Understanding and assimilation	Trauma to the: Kidneys,	Brainstorming strategy	Oral and written Examination
17	4	Understanding and assimilation	Hydronephrosis , Urinary stones	Teamwork strategy.	Oral and written Examination
18	4	Understanding and assimilation	Urinary Tract Infections (UTI)	Project strategy	Oral and written Examination
19	4	Understanding and assimilation	Urination Disorders	Discussion strategy	Oral and written Examination
20	4	Understanding and assimilation	Urinary tumours.	Story strategy	Oral and written Examination
21	4	Understanding and assimilation	Urogenital Tract in Males: Prostate, Testis, Penis	Problem solving strategy	Oral and written Examination
22	4	Understanding and assimilation	Thorax surgery: Respiratory Pathophysiology & General review	Modeling learning strategy	Oral and written Examination
23	4	Understanding and assimilation	Trauma to thorax: Rib Fractures, Flail Chest	Teamwork strategy.	Oral and written Examination
24	4	Understanding and assimilation	Pneumothorax,	Combining different strategies	Oral and written Examination
25	4	Understanding and assimilation	Pleural Effusion,	Combining different strategies	Oral and written Examination
26	4	Understanding and assimilation	Chest tube: Applications & Management	Combining different strategies	Oral and written Examination
27	4	Understanding and assimilation	Lung tumours, Mediastina masses	Teamwork strategy.	Oral and written Examination
28	4	Understanding and assimilation	Types of Thoracic operations	Project strategy	Oral and written Examination
29	4	Understanding and assimilation	Congenital heart diseases, Acquired heart diseases	Combining different strategies	Oral and written Examination
30	4	Understanding and assimilation	Cardiopulmonary resuscitation	Combining different strategies	Oral and written Examination

11. 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.

Daily Preparation	Daily Exam	Practical	Report	Monthly Exam	Final Exam	Total
5	5	15	5	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Process Design: Making it Work: A Practical Guide to What to do When and How for Facilitators, Consultants, Managers and Coaches , Book overview. Popular Process Engineering

	<p>Books ; Principles of Process Engineering S. M. enderson ; Chemical Process Equipment: Selection and Design James R. Couper ;</p> <p>Apply fundamental concepts from statics, dynamics, and mechanics of materials to the design of machine components and/or systems. — Apply static and fatigue</p>
Recommended books and references (scientific journals, reports...)	<p>Relevant graduation projects for Mining Engineering students, scientific journals and periodicals related to the subject, Engineering Design reports.</p>
Electronic References, Websites	<p>Browse the Google network using the desired subject key.</p>

**Course Description
Guide
Anesthesia2**

2024

Course Description Form

1. Course Name:	
Anesthesia 2	
2. Course Code:	
ATD3101	
3. Semester / Year	
Third class/ yearly	
4. Description Preparation Date:	
31/3 /2024	
5. Available Attendance Forms:	
Weekly (3hTheoretical & 5hPractical)	
6. Number of Credit Hours (Total) / Number of Units (Total)	
240 h/ 11 credits	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Ali Dhiaa Abood Email: dr.ali.dhiaa@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // <ul style="list-style-type: none">• Pre-operative risk assessment of patients undergoing anesthesia , Key preoperative evaluation (patient history, physical exam, laboratory results)• Perform emergency airway management , utilizing a rapid sequence induction in the OR• Indications for the use of routinely used anesthetic drugs• Major cardiovascular and respiratory effects of routinely used anesthetic drugs• provide continual medical assessment of the patient• Monitor and control the patient’s vital life functions, including heart rate and rhythm, breathing, blood pressure, body temperature and body fluid balance	
Specific (Behavioral) goals // <p>A- Knowledge and Understanding</p> <p>A1. Anaesthetic technician performs a patient care role predominantly assisting with the administration and monitoring of anesthesia and has an extensive knowledge of anesthesia techniques, instruments, supplies and technology.</p> <p>A2. Identifying the defense mechanisms that the body possesses to defend itself in cases of exposure to disease</p> <p>A3. Knowing how to link changes that occur in the functions of organs in</p>	

- case of illness to the clinical symptoms that appear on the patient
- A4. Recognize the common diseases of each organ of the body
- B. Subject-specific skills
- B1. Interpretation
- B2. Analysis
- B3 Evaluation
- B4. Explanation
- C. General and Transferable Skills (other skills relevant to employability and personal development)
- C1. Leadership skills
- C2. Listening skills
3. Learning new skills

9. Teaching and Learning Strategies

Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
-----------------	---

10. Course Structure

Assessment Method	Teaching Method	Unit/Module or Topic Title (Theoretical + practical)	Hours	Week
Quiz	Lecture under standing\$ LAB	Preoperative assessment and steps in conducting anaesthesia	8	1+2
Quiz	Lecture under standing\$ LAB	Premedication Anxiolytics , sedatives, hypnotics	8	3+4
Quiz	Lecture under standing\$ LAB	Anticholinergic drugs	8	5+6
Quiz	Lecture under standing\$ LAB	nhalational anaesthetic agents	8	7+8
Quiz	Lecture under standing\$ LAB	IV induction agents	8	9+10
Quiz	Lecture under standing\$ LAB	Basic principles in pharmacology (2 parts	8	11+12
Quiz	Lecture under standing\$ LAB	Air way assessment & difficult air way management	8	13+14
Quiz	Lecture under standing\$ LAB	Aspiration	8	15+16
Quiz	Lecture under standing\$ LAB	CPR , Basic Life support	8	17+18
Quiz	Lecture under standing\$ LAB	Obstetric physiology	8	19+20
Quiz	Lecture under standing\$ LAB	Anaesthetic management of major obstetric emergencies (major maternal hemorrhage)	8	21+22
Quiz	Lecture under standing\$ LAB	e Anesthesia for lower cesarean section , pre eclampsia	8	23+24
Quiz	Lecture under standing\$ LAB	General surgical emergencies (Anesthesia for intestinal obstruction)	8	25
Quiz	Lecture under	Anesthesia for Laparoscopic surgery	8	26+27

	standing\$ LAB			
Quiz	Lecture under standing\$ LAB	Pediatric anesthesia (special pediatric consideration)	8	28+29

11. 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.

Daily Preparation	Daily Exam	Oral Exam	Practical	Monthly Exam	Final (T+P)	Total
5	5	5	15	10	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Morga
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Scientific journals.
Electronic References, Websites	Electronic library.

**Course Description
Guide
Anesthetic
Equipment 2**

2024

Course Description Form

1. Course Name:	
Anesthetic equipment 2	
2. Course Code:	
ATD3103	
3. Semester / Year	
3rd Year	
4. Description Preparation Date:	
12 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(210 Hr. / 9 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Isra Hamed Saed Email: isarshamed552@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // At the end of the course, the student will be able to know the basics related to medical devices used by anesthesia.	
Specific (Behavioral) goals // At the end of the academic year ,the student is able to :	
<ol style="list-style-type: none">1. Using all the different anesthetic devices.2. Maintenance of all anesthetic devices.3. Definition of all parts of medical devices used in anesthesia and their techniques.	
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none">• The scientific material is delivered theoretically by the teacher• The teacher supervises the students' practical training and corrects their scientific ideas• Discussion strategy• A strategy for problem solving or problem-based learning• Story strategy

- Combining different strategies

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Evaluation method	Learning method
1&2	7	Understanding the lecture	Anesthetic circuit and sodalime absorb	Quick exam, Spot, Oral	Theoretical and practical exam
3,4,5	7	Understanding the lecture	Vaporizers introduction Simple & advanced	Quick exam, Spot, Oral	Theoretical and practical exam
6&7	7	Understanding the lecture	Byles machine	Quick exam, Spot, Oral	Theoretical and practical exam
8&9	7	Understanding the lecture	Flow meters tubing & central pipeline	Quick exam, Spot, Oral	Theoretical and practical exam
10&11	7	Understanding the lecture	Ventilators simple & advanced	Quick exam, Spot, Oral	Theoretical and practical exam
12&13	7	Understanding the lecture	Monitoring system introduction	Quick exam, Spot, Oral	Theoretical and practical exam
14&15	7	Understanding the lecture	Spirometer& pulmonary function test	Quick exam, Spot, Oral	Theoretical and practical exam
16 & 17	7	Understanding the lecture	Arterial blood pressure & ECG	Quick exam, Spot, Oral	Theoretical and practical exam
18 & 19	7	Understanding the lecture	Pulse oximeter & capnograph	Quick exam, Spot, Oral	Theoretical and practical exam
20 & 21	7	Understanding the lecture	C.V.P.	Quick exam, Spot, Oral	Theoretical and practical exam
22 & 23	7	Understanding the lecture	Epidural catheter & defibrillators	Quick exam, Spot, Oral	Theoretical and practical exam
24 & 25	7	Understanding the lecture	Blood warmer & blood analyzer	Quick exam, Spot, Oral	Theoretical and practical exam
26 & 27	7	Understanding the lecture	humidification	Quick exam, Spot, Oral	Theoretical and practical exam
28 & 29	7	Understanding the lecture	sterilization	Quick exam, Spot, Oral	Theoretical and practical exam
30	7	Understanding the lecture	Suction unit	Quick exam, Spot, Oral	Theoretical and practical exam

11. 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.

Practical	Theoretical	Final exam	Total
15	25	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Essentials of equipment in anesthesia, critical care and peri-operativemedicine Baha Al-Shaikh and Simon G. Stacey

Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines
Electronic References, Websites	Browse the Google network using the desired subject key.

*Republic of Iraq
Ministry of Higher Education and
Scientific Research
Madenat Alelem University College
Department of Anesthetic
Techniques*



*جمهورية العراق
وزارة التعليم العالي والبحث العلمي
كلية مدينة العلم الجامعة
قسم تقنيات التخدير*

***Description of the academic
program
The Forth stage
Annual system
2024***

2024

Course Description
Guide
Principles of nursing

Course Description Form

1.	Course Name:
	Principles of nursing
2.	Course Code:
	ATD4105
3.	Semester / Year
	(Annual , fourth Year)
4.	Description Preparation Date:
	12 /4 /2024
5.	Available Attendance Forms:
	Weekly attendance
6.	Number of Credit Hours (Total) / Number of Units (Total)
	(150 Hr. / 5 Unit)
7.	Course administrator's name (mention all, if more than one name)
	Name: Prof. Dr. Saad Saleh Shahatha Al Ani Email: saadsalani52@gmail.com
8.	Aims of the Course

As illustrated below

1. Recognize the principle underlying all nursing intervention procedures related to providing care to clients in adult nursing care.
2. Apply a systematic approach of analyzing the patient's problems.
3. Utilize systematic approach of analyzing the problems.
4. Perform basic nursing skills related to various client conditions.
5. Utilize principles of medical /surgical asepsis and universal precautions in client care.

9. Teaching and Learning project strategy

Strategies	<ul style="list-style-type: none">• Brainstorming strategy• Modeling learning strategy• Group work or cooperative learning strategy• Discussion strategy• Project strategy• A strategy for problem solving or problem-based learning• Story strategy.• Combining different strategies
-------------------	--

10. Course structure

Week	Hours	ILOs	Topic title	Teaching method	Assessment methods
1	5		Introduction to nursing		
2	5		Concept of nursing		

			process and stages			
3-4	10		Preoperative nursing management and general physical Assessment			
5-6	10		Pre -anesthetic, intraanesthetic and post anesthetic management of patient			
7-9	15		Intraoperative nursing management			
10-12	15		Nursing care in the recovery room			
13-14	10		Postoperative nursing care			
15-17	15	Understand the lecture	management of patient in the cardiac care unit	Smart Whit board, Posters, Handouts, Lecture, Skill lab	Theoretical exam. Practices exam.	
18-19	10		management of the cardiovascular surgery patient			
20-21	10		nursing management of intravenous therapy			
22-23	10		management of patient with neurology dysfunction (unconscious patient)			

24-25	10		management of patient with musculo - skeletal dysfunction and trauma, fracture			
26-27	10		critical care of some cases			
28-30	15		First Aid			

11. 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.

The theoretical secession						
Daily exam 1 st secession	Monthly exam 1 st secession	Daily exam 2 nd secession	Monthly exam 2 nd secession	The sum of 2 secessions	The final exam	The total degrees
5	8	5	7	25	35	60
The practical secession						
2	5	2	6	15	25	40

12. Learning and Teaching Resources

Required reading: · CORE TEXTS · COURSE MATERIAIS · OTHER	1.Fundamentals of Nursing. : Carol R Taylor, Pamela Lynn, Jennifer Bartlett. Lippincott Williams & Wilkins, Aug 4, 2022 – Medical - 1272 pages. 2.Foundations of Nursing: Enrolled Nurses with Online Study Tools 24 month s : Gray,Susan, Ferris,Leanne, White,Lois, Duncan,Gena, Baumle,WendyE
Special requirements (include for example	Workshop on First aid

workshops, periodicals, IT software, websites)			
Community- based facilities (include for example, guest Lectures , internship , field studies			

**Course Description
Guide Intensive
Care Unit2**

2024

Course Description Form

1. Course Name:	
Intensive care unit2	
2. Course Code:	
ATD4103	
3. Semester / Year	
4th Yearly	
4. Description Preparation Date:	
12 / 4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(180 Hr. / 8 Units)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Isra Hamed Saed Email: isarshamed552@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below.
General goal // At the end of the course, the student will be able to know the basics related to critical cases and how to deal with them.	
Specific (Behavioral) goals // At the end of the academic year ,the student is able to :	
<ol style="list-style-type: none">1. Using all the different devices in the intensive care unit.2. Recognition of different types of critically ill patient.3. Starting resuscitation and management of the patients in the I.C.U.	
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none">• The scientific material is delivered theoretically by the teacher• The teacher supervises the students' practical training and corrects their scientific ideas• Discussion strategy• A strategy for problem solving or problem-based learning• Story strategy• Combining different strategies

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	
1&2	6	Understanding the lecture	Recognition & management of seriously ill patient	Lecture and practical application	Theoretical and practical exam
3,4	6	Understanding the lecture	Patient monitoring in ICU	Lecture and practical application	Theoretical and practical exam
5,6	6	Understanding the lecture	E.C.G.	Lecture and practical application	Theoretical and practical exam
7&8	6	Understanding the lecture	Defibrillation	Lecture and practical application	Theoretical and practical exam
9& 10	6	Understanding the lecture	Fluid management in ICU	Lecture and practical application	Theoretical and practical exam
11&12	6	Understanding the lecture	Blood transfusion	Lecture and practical application	Theoretical and practical exam
13&14	6	Understanding the lecture	shock	Lecture and practical application	Theoretical and practical exam
15&16	6	Understanding the lecture	shock	Lecture and practical application	Theoretical and practical exam
17&18	6	Understanding the lecture	Electrolyte disturbance	Lecture and practical application	Theoretical and practical exam
19&20	6	Understanding the lecture	Electrolytes disturbance	Lecture and practical application	Theoretical and practical exam
21&22	6	Understanding the lecture	Acute kidney injury	Lecture and practical application	Theoretical and practical exam
23&24	6	Understanding the lecture	Acute severe asthma	Lecture and practical application	Theoretical and practical exam
25&26	6	Understanding the lecture	Status epilepticus	Lecture and practical application	Theoretical and practical exam
27&28	6	Understanding the lecture	Neuromuscular weakness syndromes	Lecture and practical application	Theoretical and practical exam
29&30	6	Understanding the lecture	Cardiopulmonary resuscitation CPR	Lecture and practical application	Theoretical and practical exam

11. 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.

Practical exam	Theoretical exam	Final P+T	Total
15	25	60	100
12. Learning and Teaching Resources			
Required textbooks (curricular books, if any)	Nothing		
Main references (sources)	Oxford textbook of critical care 2 nd edition Andrew Webb, Derek Angus, Simon Finfer, Luciano Gattinoni and Mervyn Singer		
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international magazines		
Electronic References, Websites	Browse the Google network using the desired subject key.		

**Course Description
Guide
Anesthesia equipments
3**

2024

Course Description Form

1. Course Name:	
Anesthesia equipments	
2. Course Code:	
ATD4102	
3. Semester / Year	
(Yearly , fourth Year)	
4. Description Preparation Date:	
8 /4 /2024	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(180 Hr. / 8 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name:. Dr. Amir Ibrahim moushib Email: amirwith3@gmail.com	
8. Course Objectives	
Course Objectives	As illustrated below .
<p>General goal //</p> <p>At the end of the course, the student will be able to use anesthetic equipments in correct and safe way.</p> <p>Specific (Behavioral) goals //</p> <ol style="list-style-type: none"> 1- the student should understand his role and responsibilities in providing anesthesia care 2- Educating the student about different equipments that are present in the operation rooms & intensive care units. 3- knowledge about the main features of these equipments 4- knowledge about the performance of these equipments while providing anesthesia or while providing monitoring care in the intensive care units 	
9. Teaching and Learning Strategies	
Strategy	Brainstorming strategy Modeling learning strategy Group work or cooperative learning strategy Discussion strategy Project strategy

A strategy for problem solving or problem-based learning
 Story strategy.
 Combining different strategies

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 - 5	10+ 5	Understanding and assimilation	Suction units	Lecture+lab	SPOT, oral, Quick exam
6 - 10	10+ 5	Understanding and assimilation	Ventilators	Lecture+lab	SPOT, oral, Quick exam
11 - 20	20+ 10	Understanding and assimilation	Monitoring system	Lecture+lab	SPOT, oral, Quick exam
21 - 24	10+ 5	Understanding and assimilation	Electrical hazards	Lecture+lab	SPOT, oral, Quick exam
25 - 27	6+3	Understanding and assimilation	Layout+ contents of anesthetics room and R.C.U	Lecture+lab	SPOT, oral, Quick exam
28 - 30	6+3	Understanding and assimilation	Electro cardiography	Lecture+lab	SPOT, oral, Quick exam
30-35	10+ 5	Understanding and assimilation	Training		SPOT, oral, Quick exam

11. 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.

practical	Theory Exam	Final exam Theory&practica 1	Total
15	25	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	No
Main references (sources)	1.Essentials of Equipment in Anaesthesia, Critical Care

	2.WARD'S ANAESTHETIC EQUIPMENT
Recommended books and references (scientific journals, reports...)	The Arab Medical Library -E-Library
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Anesthesia 3**

2024

Course Description Form

1. Course Name:	
Anesthesia3	
2. Course Code:	
ATD4102	
3. Semester / Year	
(Yearly/ 4th Year)	
4. Description Preparation Date:	
2024/4/12	
5. Available Attendance Forms:	
Weekly attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(180 hr / 8 units)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer Dr. Lecturer Marwa Adel	
8. Course Objectives	
Course Objectives	As illustrated below .
General goal // To familiarize the student with how to administer anesthetic doses to a patient.	
Specific (Behavioral) goals // At the end of the year, the student will be able to: 1- Identify all anesthesia devices. 2- How to administer narcotics. 3- How to resuscitate the patient. 4- Learn wisely about patient care when an emergency occurs. anesthesia.	
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none">• The scientific material is delivered theoretically by the teacher• The teacher supervises the students' practical training and correct their scientific ideas• Discussion strategy• A strategy for problem solving or problem-based learning• Story strategy• Combining different strategies
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	
1.	6	Understanding the lecture	Maternal Anatomical & Physiological changes	Lecture and practical application	Theoretical and practical exam
2.	6	Understanding the lecture	Paediatric Anatomical & Physiological difference.	Lecture and practical application	Theoretical and practical exam
3.	6	Understanding the lecture	Geriatric Anatomical & Physiological changes	Lecture and practical application	Theoretical and practical exam
4.	6	Understanding the lecture	Anaesthesia-Effects on Respiratory function	Lecture and practical application	Theoretical and practical exam
5.	6	Understanding the lecture	Endotracheal intubation-difficult intubation	Lecture and practical application	Theoretical and practical exam
6.	6	Understanding the lecture	Positioning in anaesthesia, legal point about surgery, regent surgery, emergency surgery	Lecture and practical application	Theoretical and practical exam
7.	6	Understanding the lecture	Hypoxia during surgery and post operative legal point about pre-medical visit & physicians consultations.	Lecture and practical application	Theoretical and practical exam
8.	6	Understanding the lecture	Co2 changes "Hypercapnoea" "Hypocapnoea" Applications	Lecture and practical application	Theoretical and practical exam
9.	6	Understanding the lecture	Desirable ventilator characteristics	Lecture and practical application	Theoretical and practical exam
10.	6	Understanding the lecture	Renal Disease & Anaesthesia	Lecture and practical application	Theoretical and practical exam
11.	6	Understanding the lecture	Alcohol & Anaesthesia complications	Lecture and practical application	Theoretical and practical exam
12.	6	Understanding the lecture	Liver Disease & Anaesthesia	Lecture and practical application	Theoretical and practical exam
13.	6	Understanding the lecture	Anaemia & Anaesthesia Sickle Cell Anaemia	Lecture and practical application	Theoretical and practical exam
14.	6	Understanding the lecture	Gastric Acid Aspiration syndrome, pre-eclampsia	Lecture and practical application	Theoretical and practical exam
15.	6	Understanding	Coronary artery diseases in non-cardiac	Lecture and	Theoretical

		g the lecture	surgery	practical application	and practical exam
16.	6	Understanding the lecture	Hypertension, Atherosclerosis, Heart failure	Lecture and practical application	Theoretical and practical exam
17.	6	Understanding the lecture	One lung anaesthesia, Bronchoscopy	Lecture and practical application	Theoretical and practical exam
18.	6	Understanding the lecture	Diabetes Mellitis & Anaesthesia	Lecture and practical application	Theoretical and practical exam
19.	6	Understanding the lecture	Thyroid surgery & Anaesthesia, Pheochromocytoma	Lecture and practical application	Theoretical and practical exam
20.	6	Understanding the lecture	TURP , pyloric stenosis, burn	Lecture and practical application	Theoretical and practical exam
21.	6	Understanding the lecture	Upper air way obstruction causes & anaesthesia	Lecture and practical application	Theoretical and practical exam

22	6	Understanding the lecture	Massive blood transfusion	Lecture and practical application	Theoretical and practical exam
23	6	Understanding the lecture	Anaphylaxis in the OR	Lecture and practical application	Theoretical and practical exam
24	6	Understanding the lecture	hypertension and anesthesia	Lecture and practical application	Theoretical and practical exam
25	6	Understanding the lecture	Control of I.C.P.	Lecture and practical application	Theoretical and practical exam

11. 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.

Practical	Theoretical	Final exam (T&P)	Total
15	25	60	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Nothing
Main references (sources)	Oxford handbook of clinical anesthesia , Morgan and Mikhail's Clinical Anesthesiology 6 th edition
Recommended books and references (scientific journals, reports...)	Relevant graduation projects for anesthesia and intensive care unit, and international

	magazines
Electronic References, Websites	Browse the Google network using the desired subject key.

**Course Description
Guide
Medical Surgical**

2024

Course Description Form

1. Course Name:	
medical surgical	
2. Course Code:	
ATD4104	
3. Semester / Year	
4 TH CLASS- YEARLY	
4. Description Preparation Date:	
30 /3 /2024	
5. Available Attendance Forms:	
Weekly attendance 2 h theory \ 2 h practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
(150 hour / 6 Unit)	
7. Course administrator's name (mention all, if more than one name)	
Name: lecturer DR. ahmed sabah lecturer DR. Salahaldeen Abdulnabi Gatea Email: ahmedsabah@mauc.edu.iq salahaldeen.abdulnabi@yahoo.com	
8. Course Objectives	
Course Objectives	As illustrated below .
<p>General goal //</p> <p>To familiarize the student with the basic principles related to the foundations of surgery, which are related to anesthesia and intensive care .</p> <p>Special Objective : To teach the student the basic principles of surgery and medicine , including the applications of physiology and pathology in interpreting the changes and complications that occur in the human body as a result of injuries and various medical conditions and how to deal with it.</p> <p>The scientific material is delivered theoretically by the instructor</p> <p>The teacher supervises the practical training of students and corrects their scientific ideas</p>	
9. Teaching and Learning Strategies	
Strategy	Group work or cooperative learning strategy Discussion strategy Project strategy A strategy for problem solving or problem-based learning Story strategy. Combining different strategies
10. Course Structure	

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	5	Understanding the lecture	Shock (types, patho physiology, management)	Lecture + LAB	Theory and practical
2	5	Understanding the lecture	Burn, plastic surgery	Lecture + LAB	exam
3	5	Understanding the lecture	Traumatology	Lecture + LAB	Theory and practical
4	5	Understanding the lecture	Traumatology	Lecture + LAB	exam
5	5	Understanding the lecture	Warfare injuries	Lecture + LAB	Theory and practical
6	5	Understanding the lecture	Head injuries, SOL, magement of unconscious patient	Lecture + LAB	exam
7	5	Understanding the lecture	Spinal injuries, peripheral nerve injuries	Lecture + LAB	Theory and practical
8	5	Understanding the lecture	Tracheostomy, otolaryngiology	Lecture + LAB	exam
9	5	Understanding the lecture	Ophthalmology	Lecture + LAB	Theory and practical
10	5	Understanding the lecture	Orthopaedic Surgery: Fractures & Dislocations	Lecture + LAB	exam
11	5	Understanding the lecture	Osteomyelitis: Acute & Chronic , Tumours of musculoskeletal system	Lecture + LAB	Theory and practical
12	5	Understanding the lecture	Wrist, hand, foot	Lecture + LAB	exam
13	5	Understanding the lecture	Wrist, hand, foot	Lecture + LAB	Theory and practical
14	5	Understanding the lecture	Endocrinology: Pituitary gland	Lecture + LAB	exam
15	5	Understanding the lecture	Thyroid gland	Lecture + LAB	Theory and practical
16	5	Understanding the lecture	Parathyroid gland & calcium balance.	Lecture + LAB	exam
17	5	Understanding the lecture	Adrenal gland	Lecture + LAB	Theory and practical
18	5	Understanding the lecture	D.M : complications, management, preparation for operation.	Lecture + LAB	exam
19	5	Understanding the lecture	Preparation of patient with obstructive jaundice	Lecture + LAB	Theory and practical
20	5	Understanding the lecture	Preparation of patient with portal hypertension due to cirrhosis	Lecture + LAB	exam
21	5	Understanding the lecture	Management of haematemesis, melaena	Lecture + LAB	Theory and practical
22	5	Understanding the lecture	Management of haemopneumothorax, flail chest	Lecture + LAB	exam
23	5	Understanding the lecture	Management of respiratory failure, ARDS	Lecture + LAB	Theory and practical
24	5	Understanding the lecture	Management of coagulopathy, DIC	Lecture + LAB	exam
25	5	Understanding	Management of septicaemia, MOFS	Lecture +	Theory and

		the lecture		LAB	practical
26	5	Understanding the lecture	Surgical Precautions in theater & ICU	Lecture + LAB	exam
27	5	Understanding the lecture	Transplantation	Lecture + LAB	Theory and practical
28	5	Understanding the lecture	New Techniques in Surgery	Lecture + LAB	exam
29	5	Understanding the lecture	Emergencies in Female's genital tract: Injuries, Ectopic Prenancy	Lecture + LAB	Theory and practical
30	5	Understanding the lecture	Abortion, Caesarean section , hysterectomy	Lecture + LAB	exam

11. 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,.... etc.

practical	theory	Final practical & theory	Total
15	20	60	100

Oxford handbook of clinical surgery 4th edition Bailey and Love Short practice in surgery

Davidson's principles and practice of medicine

Churchill's Pocketbook of Surgery, 4th Edition

1. Required reading:

- CORE TEXTS
- COURSE MATERIALS
- OTHER