



Course book of Body Fluid Analysis
Lecturer's name:
Assist. Prof. Dr. Karzan Rafiq Sidiq
Academic year: 2024-2025

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Course book outline

1. Course name	Body Fluid Analysis
2. Lecturers in charge	Assist. Prof. Dr. Karzan Rafiq Sidiq (Theory) M. Shwan Mohammed Amin (Practic)
3. Department/ College	Medical Laboratory Sciences (MLS)/ Science
4. Contact	E-mail: karzan.sidiq@chermouniversity.org Tel: 07725212968
5. Time (in hours) per week	Theory: 2 hours Practical 3 hours
6. Office hours	Availability of the lecturer during the week
7. Course code	(MLS86--)
8. Teachers's academic profile	https://dqa.chu.edu.iq/dqa/profile/karzan.sidiq@chu.edu.iq/ https://dqa.chu.edu.iq/dqa/profile/Shwan.ali@chu.edu.iq/
9. Keywords	Body fluids, Clinical Specimen, Laboratory analysis

Course overview

This course is going to provide the student suitable information about human body fluids (e.g. urine, cerebrospinal, seminal, pleural, peritoneal, pericardial, and synovial fluids). The normal characteristics and pathological changes in the body fluids will be studied. Also, the laboratory tests used in the clinical evaluation of body fluids will be explained. The medical laboratory students must study this course in order to be able to work in clinical and diagnostic laboratories at hospitals.

Course objective

1. Provide students with general knowledge of body fluids, body fluid compartments, body fluid composition and specimen collection
2. Provide the students with a general background about laboratory techniques of body fluids analysis in clinical laboratories.
3. Provide the student with a clear understanding of normal and abnormal characteristics of body fluid as results of infections or pathological conditions.
4. Encouraging the students to work in team and collaborate in laboratories.

Course Learning outcomes

Upon successful completion of this course, the student will be able to

(Linked to NAACLS):

1. Describe the formation, composition, movement, types and functions of common body fluids (E).
2. Evaluate body fluid specimen to determine suitability and acceptability for the tests requested (D, F).
3. Professionally and safely collect, label, handle, storage and analyze body fluid specimens, depending on governmental regulations and standards as applied to clinical laboratory science (A, E, F).
4. Explain principle of each test identified / performed for specimen analysis. Moreover, evaluate laboratory test outcomes and correlate test results with patient's clinical condition(s) (B, D, F).
5. Look for scientific information about body fluid analysis and body fluid abnormalities in the libraries and online resources, these are useful for preparing assignments, reports, seminars and project about body fluid (B, E).

Student's obligation

Attendance Policy

Attendance is mandatory and will be taken daily by the Instructor. Students are expected to attend all the classes for the entire semester. Students are responsible for material presented in lectures. Attendance is taken at the beginning of each class. Students are excused from class due to acute illness, a personal crisis (e.g. death in the family). This in no way cancels any responsibility for work due or assigned during absence. The student who misses more than **10%** of the course classes will be placed on probation.

Make-up Policy

Because all examinations are announced in advance a zero will be assigned to any missed examination unless a student has a legitimate acceptable reason, such as illness, for not being able to take the examination during all the days when the examination was announced.

Academic Dishonesty

Any type of dishonesty (plagiarism, copying another's test or home-work, etc) will NOT be tolerated. Students found guilty of any type of academic dishonesty are module to failure in this course, plus further punishment by the University Consul.

Deadlines/Due Dates

Recognizing that a large part of professional life is meeting deadlines, it is necessary to develop time management and organizational skills. Failure to meet the course deadlines will result in penalties. **Late assignments will be accepted with a penalty if they are less than 3 days passed their respective due dates, otherwise a zero will be assigned to those assignments.** Work may be submitted early.

Cell Phones

All cell phones are expected to be switched to vibrating mode if available and turned off completely if this feature is not an option. Disruption of class due to a cell phone will not be tolerated and the student will be asked to leave class. All other electronic equipment that the College member deems not essential to the provision of academic learning is prohibited from being used in class.

Forms of teaching

The lecturers use different means of learning such as white board and datashow, posters and movies. The lectures are presented in powerpoint format, showing text and illustrated images. The lectures are uploaded via Google classroom at least 2 days in advance. Thus, students can download the lecture files and print them out. All the announcement about the date of quiz, assignments, test and examinations are published in Google classroom.

Assessment of scheme

Prefinal theory

Assessment	Description	Weight %
Quizzes/Tests	- Quizzes / Tests will be scheduled per the semester calendar provided to you. Students will take One quiz and One test.	6
Mid-term Exam	- Midterm test will be planned to cover weeks (1-6)	10
Assignments	- Students will submit One report	4
Total		20

Final Exam (Only in theory)

Assessment	Description	Weight
All types of questions (Page 10)	All the theoretical lectures are included in the final exam.	50

Prefinal practice

Assessment	Description	Weight
All assessments	- They will be defined by the practical instructor.	30

GRADING POLICY

Letter	Marks	Grade Points	Level
A+	95 - 100	4.0	Excellent Pass
A	90 - < 95	3.8	Excellent Pass
A-	85 - < 90	3.6	Very Good Pass
B+	80 - < 85	3.4	Very Good Pass
B	75 - < 80	3.2	Good Pass
B-	70 - < 75	3.0	Good Pass
C+	65 - < 70	2.8	Intermediate Pass
C	60 - < 65	2.6	Intermediate Pass
C-	55 - < 60	2.4	Pass
D+	52.5 - < 55	2.2	Pass
D	50 - < 52.5	2.0	Pass
F	0 - < 50	1.99	Fail

W: Withdrawal

(50 is the passing grade. A 100 is your goal)

I: Incomplete

Course Reading List and References:

1. Course Note:

Available on Google classroom/Body Fluid Analysis class.

2. Textbooks:

1. Fundamentals of Urine and Body Fluid Analysis, Nancy A. Brunzel MS, 4th Edition, 2018. ISBN: 978-0-323-37479-8
2. Graff's textbook of urinalysis and Body Fluids, Lillian A. Mundt and Kristy Shanaham, 3rd Edition, 2016. ISBN: 1-4963-2016-6 (1496320166)

3- Online resources:

Google search for any antibiotic's textbooks, lecture topics and videos.

WEEKLY SCHEDULE

Weeks	Topics	Student Assessments
1	<ul style="list-style-type: none"> ▪ Introduction to water content in body, body fluid compartments, compositions, movement, factors affecting their volume and roles of common electrolytes. 	--
2	<ul style="list-style-type: none"> ▪ Urinalysis 	--
3	<ul style="list-style-type: none"> ▪ Cerebrospinal fluid analysis 	Quiz #1
4	<ul style="list-style-type: none"> ▪ Serous Fluids: (Pleural, Pericardial and ▪ Peritoneal) analysis 	--
5	<ul style="list-style-type: none"> ▪ Synovial Fluid analysis 	--
6	<ul style="list-style-type: none"> ▪ Semen fluid analysis 	--
7	Midterm Exam	
8	<ul style="list-style-type: none"> ▪ Vaginal secretion analysis 	--
9	<ul style="list-style-type: none"> ▪ Amniotic fluid analysis 	Assignment/ report
10	<ul style="list-style-type: none"> ▪ Fecal analysis 	--
11	<ul style="list-style-type: none"> ▪ Whole blood, Serum, plasma, and whole blood analysis 	Test
12	<ul style="list-style-type: none"> ▪ Analysis of body fluids for forensic Purposes. 	
13	Revision week	
14	Final Exam (1st & 2nd trials)	
15		
16		
17		
18		
19		

Coursework and exams

1. Definition:

In this type of exam a scientific word will be provided, and then students will describe it in a short text.

2. Blank

In this type of exam a short sentence with missed word(s) about a specific subject will be provided, then students will fill the blank with appropriate word (s).

3. True or false type of exams:

In this type of exam a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of this particular sentence.

4. Multiple choices:

In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase.

6. Enumerate and explain

Writing the types of a topic and explain one or all of them.

Rules and instructions to be followed by students for exams (optional)

Advising the students on answering technique in order to pass the exams successfully. For example:

- Attend all classes contribute during the lessons, do all assignment on time and submit on time.
- Work both independently and in groups of your study of peers, who can help you understanding the course material.
- Pay a full attention in the class when your instructor explains the lesson, if you understand 70% directly from the instructor, then the 30% will be just practice exercises.
- Understanding more than memorizing will help you a lot in passing exams.
- Please ask questions at any time about anything you do not understand. You can ask during the class, in tutorials, office hours and by email.
- To read the questions twice
- Think carefully before answering
- Plan the answer on a separate paper

Extra notes

My Philosophy in Teaching:

Teaching is a skill that everyone cannot perform it, because the professional future of individuals is responsibly shaped in teaching process. Good teachers should be in a tight scientific integration with the students, who are going to learn a particular field of science. Moreover, teachers must create a scientific atmosphere in the class and make information smoothly pass to the students mind. When I teach, I feel I am an actor and the students are audience, so I sometimes turn the scientific subject to something social just to make the students smile. I think this strategy makes the students enjoy the lesson and prevents them being bored. My advice for students is that you must always believe that the teachers are in behalf of you.

Peer review

I certify that:

- 1- I read and verify all requirements of teaching quality assurance are respected in this course book.
 - 2- The scientific contents are new, convenient and well organized for this stage.
 - 3- The order of chapters are well done.
 - 4- References are new and available for students.
- That's why I signed on this course book. And i take all responsibilities.

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