

American University of Beirut
 Faculty of Health Sciences
 Medical Laboratory Technology Program
MLSP 207
 (Immunology and Blood Banking)
 Fall Semester 2017-18

Name	Rolla Al-Khatib	Course Credits:	1 credit
Office Hours:	TWRF. 10:00 a.m. – 11:00 a.m. or by appointment	Meeting Location	Van Dyck, room 103
Office Location:	Van Dyck, Rm 213C	Meeting Time:	TR:12:00-12:50 pm
Extension	4696		
E-mail	ra03@aub.edu.lb		

Course Description:

This is an introductory course in Immunology that is designed to introduce students to the basic immunological principles including innate and acquired immunity, humoral versus cell mediated immune responses, role of the complement system in the immune response, cells and organs involved in immune reactions and finally the cooperation between different cells in the clearance of antigen.

Course Objectives:

Upon completion of this course, students should be able to:

1. Compare and contrast innate and acquired immunity.
2. Describe the structure of the lymphoid system.
3. Describe the cells involved in immune responses.
4. Differentiate between the different subpopulations of lymphocyte.
5. Explain the structure of an antibody molecule.
6. Describe antibody classes and their functions
7. Describe primary and secondary antibody responses to infection.
8. Explain the role of complement in immunity.

COURSE SYLLABUS

WEEK	Topic	Reading
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WEEK 1

R AUG 31	* An Overview of Immunology A- Natural Immunity B- Acquired Immunity: <ul style="list-style-type: none"> • Humoral immune response • Cell mediated immune response C- Characteristics of the immune response D- Immunopathology	Moodle (Syllabus)
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R SEP 7	* Maturation ,Clonal expansion and differentiation of lymphocytes * A- Structure of the Lymphoid System <ul style="list-style-type: none"> • Primary lymphoid organs • Secondary lymphoid organ * B- Cells of the Immune System: <ul style="list-style-type: none"> • Identification of Lymphocyte sub-populations 	Moodle (lecture)
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WEEK 2

T SEP 12	* Stages in T Cell Differentiation and T Cell Markers	Moodle (Lecture)
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R SEP 14	* Stages in B Cell Differentiation and B Cell Markers	Moodle (Lecture)
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WEEK 3

T SEP 19	* Antigens * A-Requirements for Antigenicity * B-Some Selected Antigens	Moodle (Lecture)
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R SEP 21	Vacation	
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WEEK 4

T SEP 26	* Antibodies (Immunoglobulins) * A- Structure of Immunoglobulins * B- Effect of Enzymes * C- Classes, Subclasses and Types of Immunoglobulins	Moodle (lecture)
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R SEP 28	* D- Physio-Chemical Properties of Immunoglobulins * E- Biological Properties of Immunoglobulins	Moodle (lecture)
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WEEK 5

T SEP 3	* Kinetics of the Humoral Immune Response * A- Primary Immune Response * B- Secondary Immune Response * C- Antibody Classes Produced in Primary and Secondary Immune Responses	Moodle (Lecture)
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R SEP 5	* Midterm	
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WEEK 6

T OCT 10	* Complement System * A- The Classical Complement System	Moodle (Lecture)
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R OCT 12	* B- The Alternative Complement System * C-The MB-Lectin pathway * C- Biologic Effects of Complement Components	Moodle (Lecture)
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WEEK 7

T OCT 17	* The Immune Response * Antigen Processing and Cell Cooperation in the Immune Response	Moodle (Lecture)
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WEEK 8

T OCT	* Final Exam	
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EVALUATION

Mid Term: 40% (meets objectives 1, 2, 3 & 4)
Final Exam: 60% (meets objectives 5, 6, 7 & 8)

COURSE POLICY

1. **Attendance:** you are expected to attend all classes and participate in class activities. If you miss a class, it is your responsibility to make up for the material missed, and inquire about any announcements made. If you miss more than one fifth of class sessions, you are subject to withdrawing from the course with a-w-grade. *Please refer to the AUB catalogue.*
2. **Exams:** Examinations must be taken as scheduled. Make up exams will not be given unless a valid excuse is given. Only authorized medical reports will be accepted (AUBMC/Infirmary).
3. **Withdrawal date:** Please observe withdrawal dates set by the Registrar's Office.
4. **Academic integrity:** Cheating and plagiarism will not be tolerated. Review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties. If you're in doubt about what constitutes plagiarism, ask your instructor because it is *your* responsibility to know. The American University of Beirut has a strict anti-cheating policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in the student's records.
5. **Special needs:** 'AUB strives to make learning experiences as accessible as possible. If you anticipate or experience academic barriers due to a disability (including mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to help establish reasonable accommodations and facilitate a smooth accommodations process, you are encouraged to contact the Accessible Education Office: accessibility@aub.edu.lb; +961-1-350000, x3246; West Hall, 314'.