



**A- COURSE TITLE, CODE, ACADEMIC YEAR:**

**MEDICAL IMMUNOLOGICAL INDUSTRY (MLT-228) 1437-1438H**

**B- COURSE INFORMATION:**

Course Code	Course Title	Credit Units			Study Level	Pre-requisites
		Total	Theory	Practical		
MLT228	Medical Immunological Industry	2	2	-	4th	None
Course Coordinator		Extension		Email Address		
Dr. May A. Alsayb		8671		msayb@taibahu.edu.sa		

**C- COURSE DESCRIPTION:**

The purpose of the course is to pave the way for students to understand the inflammatory process and the interaction of the immune system leading to a disease state. The course begins by explaining the role of the immune cells in the body and the types of each of the WBCs in detail. Then a further investigation in the function of individual cells and how collective action leads to the inflammatory response. The basic biology of innate, as well as adaptive immunity will be discussed. Antibody types and subtypes, different types of antigens and the main principles of antigen antibody interactions will be covered.

**D- COURSE OBJECTIVES:**

1. To describe the principles of the immune system.
2. To discuss the function of each WBC individually.
3. To identify the main effector function of each WBC.
4. To discuss and contrast the different response mechanisms for different immunological stimuli.
5. To recognize and appreciate the different levels of WBC count in different pathological states.
6. To define the principles of innate immunity.
7. To define the principles of adaptive immunity.

**E- THEORY TOPICS:**

Week	Theory Topic	Contact Hours
1	Introduction to Immune Cells	2
2	Morphology & Identification	2
3	Neutrophils, Eosinophils & Basophils	2
4	Monocytes & Macrophages	2
5	T Lymphocytes	2
6	B Lymphocytes	2
7	WBCs & Differential Count	2



8	Ups & Downs of WBC Count	2
9	Antigens & Antibodies	2
10	Other Immune Cells	2
11	Interleukins & Chemokines	2
12	Inflammation	2
13	Innate Immunity	2
14	Adaptive Immunity	2
15	Revision	2

#### G- ASSESSMENT TASKS:

#	Type of assessment task	Week	Total Grades
1	Assignment submission	Week 10	10%
2	Midterm examination (written)	Week 8	20%
3	Other Assessment Methods: e.g. Quizzes, Internet searches, Home works, Class activity, Exercises, Scratch Cards, Presentations, Group work.....etc	Weeks 1-16	30%
4	Final written exam	Week 18	40%

#### H- LEARNING RESOURCES:

##### 1- Required textbook:

- Lecture Notes: Immunology, 7th Edition; Ian Todd, Gavin Spickett, Lucy Fairclough ©2015, Wiley-Blackwell

##### 2- Essential references:

- Essentials of Clinical Immunology, 6th Edition; Helen Chapel, Mansel Haeney, Siraj Misbah, Neil Snowden ©2014, Wiley-Blackwell

#### **Notes:**

- Assignments topics and requirements shall be announced by the end of Week-1, the deadline for submission is 12pm Thursday of Week-10 (each semester).
- Assignments and written assessment tasks must be verified against plagiarism, the maximum acceptable percentage is determined by the department (according to each level).
- Continuous assessments may include quizzes, internet searches, home-works, exercises, class activity, scratch cards, presentations, group work, etc.
- Practical exams may contain hands-on experiments, laboratory work, simulations, or demonstrations.
- Written exams will include multiple-choice questions (MCQ), short essay questions, and long essay questions.