

ORT Braude Academic College of Engineering
The Professor Efraim Katzir Department of Biotechnology Engineering
Immunology 41181 Winter Semester 2019-2020

Lecture course (2 hours/week; 13 weeks)

Wednesday 11:30-13:50 D1299

Course language: English

Lecturer: Dr Nicholas Harris (Office hours: by appointment, nharris@braude.ac.il)

Prerequisite: Molecular Biology and Genetic Engineering (41161)

Published articles will be presented that include material covered in the lectures. The contents of the articles will be used in the final examination.

Course grade will be based on the final exam. The exam will be written in English. Exam answers can be written in Hebrew, English or both.

Date	Topic	Chapter (Kuby)	Lecture
30.10.19	Overview of the immune system	1	1 Introduction
6.11.19	Cells & Organs the immune system	2	2 Cells the Immune System
13.11.19	Antibodies: Gene, Structr., Function	4, 5	3 Antibody
20.11.19	"		4 Antibody
27.11.19	T-Cell Receptor	9	5 T Cell Receptor
4.12.19	Major Histocompatibility Complex	7	6 MHC
11.12.19	Antigen processing & presentation	8	7 Antigen process.,present.
18.12.19	T-Cell maturn, activatn, diffrentn.	10	8 T-C matur, activ, diffren.
25.12.19	B-Cell maturation, activation	11	9 B cell maturation, activtn.
1.1.19	Cytokines, T _h 1/T _h 2 development	12 (276-284, 288-291)	10 Cytokines
8.1.19	Cell-mediated effector responses	14 (319-333)	11 Cell-mediated responses
15.1.19	Immunology Article		
22.1.19	Immunology Article		
	Examination (first sitting)		
	Examination		

Course Literature:

1. **Kuby Immunology By: R A Goldsby, T J Kind, B A Osborne. (Pub: W.H. Freeman and Company New York)**
Kuby Immunology On-Line: <http://www.whfreeman.com/kuby/content/anm/kb05an01.htm>
2. **Immunobiology. By: C.A. Janeway and P. Travers et al 2nd 4th Edition**
3. **Immunobiology By: CA Janeway and P. Travers ON-Line:**
[http://www.ncbi.nlm.nih.gov/books/bv.fcgi?call=bv.View..ShowTOC&rid=imm.TOC
&depth=2](http://www.ncbi.nlm.nih.gov/books/bv.fcgi?call=bv.View..ShowTOC&rid=imm.TOC&depth=2)
4. **Fundamental Immunology By: W.E.Paul (Pub: Lippincott-Raven) 4th Edition**
אתרים באינטרנט:
1. <http://www.graylab.ac.uk/omd/index.html> : **Online Medical Dictionary**
2. <http://www.antibodyresource.com/educational.html>
3. <http://stwi.weizmann.ac.il/g-bio/immuno/> **קורס בסיסי באימונולוגיה**
4. <http://www.ultranet.com/~jkimball/BiologyPages/C/CMI.html>
5. <http://home.earthlink.net/~shalpine/anim/> **Animation**