

Course plan

Year: 2025	Semester: ☒ First ☐ Second ☐ Summer	Number of students: 12
Major: Medical immunology	☒ Basic sciences, ☐ Physiopathology	Department: Immunology
Course Title: Vaccination and immunotherapy	☒ Theoretical, ☐ Practical	Credit: Code N.: 1221056
Prerequisite:	Day & Time: Saturday & 10-12	Course type:
Instructor: DR. Pordel	Office address:	Tel: 09171747335
Email: safoora.pordel@gmail.com	Response Hours and Days:	Student representative name and mobile number:

Main objective: Students will be introduced to the topics of vaccination and types of immunotherapy in various diseases. By the end of this course, students should be familiar with types of vaccines, adjuvants, types of immunomodulators, and immunological methods of treating various diseases.

During this course, students should be familiar with:

1. History and introduction to vaccination, principles of vaccination, factors affecting the immune response induced by vaccines, approved vaccines in the Iranian vaccination program.
2. Definitions of the vaccine field, strategies and technologies for producing current and new vaccines, introduction to types of inactivated, attenuated and subunit vaccines, RNA, DNA vaccines and recombinant vectors.
3. Types of adjuvants and their mechanism of action, characteristics of an ideal adjuvant.
4. Become familiar with passive immunization of infectious diseases, natural passive immunization, artificial passive immunization and active immunization of infectious diseases.
5. Introduction to immunotherapy, history of immunotherapy, types of active and passive immunotherapy in different diseases.
6. Become familiar with antibody therapy, types of target antigens and different antibody therapy strategies.
7. Learn about immune cell therapy, types of cells used and different strategies in cell therapy, stem cell therapy.
8. Learn about immunotherapy of diseases: immunotherapy of cancers, immunotherapy of autoimmune diseases.

References (Text books):

- 1- Immunotherapy- A novel facet of modern therapeutics, Springer, Least Edition.
- 2- Plotkins Vaccines (Vaccines (Plotkin)) Least Edition.
- 3- Clinical immunology rich, Least Edition.
- 4- - Recent reputable articles

Student evaluation and the value related to each evaluation:

(The assessment tools that will be used to test student ability to understand the course material and gain the skills and competencies stated in learning outcomes)

ASSESSMENT TOOLS	From
Assignments	-
Quiz	-
Presence in online courses	-
Midterm Exam	10
Final Exam (Written exam)	10
TOTAL MARKS	20

Students responsibilities:

- 1- 1- Mobile phones must be turned off during class or exams.
- 2- 2- Attending class on time

- 3- 3- It is necessary for the student to attend all class hours. Unexcused absence during the course will result in a grade deduction.

Discipline and educational rules:

- 1- It is applied according to the regulations of the educational regulations.

Mid exam date:

Final exam date:

Row	date	Time	Topic	Professor	References	Chapter	Pages
1	October /04	10-12	History and introduction to vaccination, principles of vaccination, factors affecting the immune response induced by vaccines, approved vaccines in the Iranian vaccination program	Dr.Pordel			
2	October /11	10-12	Definitions of the vaccine field, current and new vaccine production strategies and technologies, introduction to types of inactivated, attenuated, and subunit vaccines, RNA, DNA, and recombinant vector vaccines	Dr.Pordel			
3	October /18	10-12	Types of adjuvants and their mechanism of action, characteristics of an ideal adjuvant, and methods for evaluating vaccine efficacy.	Dr.Pordel			
4	October/25	10-12	Passive immunization of infectious diseases, natural passive immunization, artificial passive immunization and active immunization of infectious diseases	Dr.Pordel			
5	November/01	10-12	Introduction to types of immunomodulators, aptamers and single chain variables	Dr.Pordel			
6	November /08	10-12	Immunotherapy in cancer	Dr.Pordel			
7	November /15	10-12	Immunotherapy in cancer	Dr.Pordel			
8	November /22	10-12	Immunotherapy of diseases: autoimmune and allergic diseases	Dr.Pordel			