PATHOPHYSIOLOGY OF AUTOIMMUNE DISEASES	
GENERAL INFORMATION	
Course coordinator	Professor Jerko Barbić, MD, PhD
Assistant/Associate	-
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Elective
Year of study, semester	3rd year, 5th semester
ECTS	**2**
Workload (hours)	Lectures (10); Seminars (10); Exercises (5)
Expected number of students	70

COURSE DESCRIPTION

Course objectives

The aim of the course is to introduce students with the basic mecahanism related to the pathophysiology of autoimmune disseases. The role of innate and acquired immunity in the mecahanisms of the dissease will be presented. The molecular and cellular mecahanism involved in autoimmune response will be explanied. The role of inflammatory response will be analysed as the improrttant mecahanism in breakinig the tolerance. The polarization of the T lymphocytes response will be disscuss and the role od individual T cell population (Th1,Th2,Treg and Th17) will be presented in details. The mechanism of the occurence of certain autoimmune disseases will be discussed in detail. In addition the goal is to introduce students with the latest reasearch methods for studying autoimmune disseases (experimnetal models of dissease, flow cytometry, genotyping). With this approcah from basic scinece to clincal immunology, this course has additional aim to familiriaze students with the basic principles of translational medicine.

Enrolment requirements and entry competencies

In accordance with the conditions for enrollment in the 3rd year of the study program

Learning outcomes at the Programme level

1.1., 1.2., 2.1, 2.2, 2.3, 3.4.,3.5., 4.2.

Learning outcomes (5-10)

1. Presenting the elements of immunity that are involved in the autoimmune response.
2. Explain the concept of central and peripheral tolerance.
3. To explain the role of inflmmation in the development of autoimmune disseases.
4. To understand the differetiation of T lymphocytes and their role in the development of autoimmune disseases.
5. Integrate the key mecahnism and their occurnece on the examples of individual autoimmune disseases.

Course content

Autoimmunity, mecahanism of autoimmune dissease. Disorders of immune regaultaion, tolerance, autoantigens generation, definition and examples of monorganic and multiorganic autoimmune disseases. Cytokines and other disseases mediatprs. Development of Th cells diferrentitaion and the role of Th1, Th2, Treg, and Th17 cells in autoimmunity. The role of B cells imunity. Dangres signal sin autoimmune response. Pathophysiology of SLE. Genotype of autoimmune dissease. Autoimmune model of diabetes mellitis. Case reports.

Mode of teaching

Lectures / Seminars /Exercises

Student obligations

Students are expected to attend all class sessions, as well as to take all the examinations. However, they are allowed for excused absences, totalling 30% of all classes.

Monitoring student work *(alignment of learning outcomes, teaching methods, and grading)*

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.
Attending classes	0.2	1-4	Attendance at classes	Keeping records	5	20
Seminars, exercises	0.5 0.4	1-4	Active participation and presentation at seminars, exercises	Records of activity and presentation at seminars	10	20
Final exam	1	1-4	Learning for the final exam	Oral exam	35	60
Total	**2**				**50**	**100**

Evaluation od final exam:

Student answer	Grade points
The answer meets the minimum criteria	35.0
The average answer with noticeable errors	45.0
The very good answer with minor errors	55.0
The exceptional answer	60.0

Calculation od final grade:
Students who achieved 30 or more points in the final exam, the points obtained in the final exam are added to the grade points obtained during the class, and this sum constitutes the final grade. Since the study program schedule descriptive assessment of elective courses, the course coordinator awards the grade "passed" to a student who achieves 50 or more grade points in the course.

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
Patofiziologija, udžbenik, Medicinska Naklada, Zagreb, VIII izdanje, 2018. Urednici: Gamulin, S. Kovač Z., Marušić M.	6	

Additional reading

Review articles and case reports

Course evaluation procedures

Anonymous, quantitative, standardized student survey providing feedback on the course as well as on the work of course coordinators and their assistants/associates is being conducted by the QA

Office of the Faculty of medicine Osijek.
Note /Other
E-learning does not count towards course contact hours, but is being used in teaching and comprises links to various web pages, as well as video and audio materials available on web pages.