

AUTOIMMUNITY AND AUTOIMMUNE DISEASES	
GENERAL INFORMATION	
Course coordinator	Professor Marija Glasnović, MD, PhD
Assistant/Associate	Associate Professor Martina Mihalj MD, PhD Associate Professor Suzana Mimica, MD, PhD Assistant Professor Silvija Canecki Varžić, MD, PhD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Elective
Year of study, semester	3 rd year, 5 th semester
ECTS	2
Workload (hours)	Lectures (8); Seminars (15); Exercises (2)
Expected number of students	30
COURSE DESCRIPTION	
Course objectives	
Acquiring and supplementing knowledge and the possibility of a more detailed insight into the mechanisms of autoimmunity. The course allows students to expand their knowledge in the field of autoimmunity from all areas of clinical medicine, especially rheumatology and immunology, which are not fully covered in the course due to the lack of hours. Developing knowledge regarding the organization of the immune system, the problem of autoimmune diseases, a more thorough understanding of the etiopathogenesis of systemic autoimmune diseases.	
Enrolment requirements and entry competencies	
Passed all exams of the previous years of study and exams from the Immunology course.	
Learning outcomes at the Programme level	
1.1.,1.2.,3.5.,4.2.	
Learning outcomes (5-10)	
After passing the exam of this course, the student will be able to:	
<ol style="list-style-type: none"> 1. Interpret the organization of the immune system and the main features of innate (non-specific) i specific (acquired) immunity. 2. Assess the main causes of autoimmunity, the initiation of autoreactivity and immune tolerance. 3. To evaluate the executive mechanisms of immune pathogenicity in autoimmune diseases and mechanisms of prevention of autoimmunity. 4. To compare organ specific and systemic autoimmune diseases. 5. Confirm the immune aspects of various diseases in clinical medicine that are listed in the course. 6. Valorize clinical symptoms and laboratory findings in clinical practice. 7. Argue the principles of drug action in autoimmune diseases. 8. Recommend new treatment methods and future therapeutic goals, especially gene therapy and stem cell transplantation. 	
Course content	
Lectures	
Introduction to the course. Definition and division of the immune system. Cells and mechanisms of normal immune reactions. Theories of the origin of autoimmunity, genetic predisposition and causes. Neuroendocrinohumoral regulation of immunity. Autoimmunity prevention mechanism. Mechanisms of immune pathogenicity in autoimmune disease. Autoimmune lymphoproliferative syndrome. Principles of drug action in autoimmune diseases. Corticosteroid therapy, DMARD-th.	

Cytostatics and immunosuppressants. Biological therapy. New treatment methods and future therapeutic goals; immunomodulation by acting on cytokines, activation of lymphocytes, endothelial adhesion molecules; DNA vaccination, peptides, Induction of tolerance, IVlg, Transplantation of stem cells.

Seminars

Definition of autoimmune diseases and division of systemic autoimmune diseases: SLE, RA, JKA, PM, PSS AS, RG, Sy.APS, Sy. Sjogren's. Organ specific autoimmune diseases: Diabetes mellitus, Graves' disease, Hashimoto's disease, Atherosclerosis. IBD, Celiac disease Organ specific autoimmune diseases: Liver and bile duct diseases (AH, PBC, PSC), Autoimmune hemolytic anemia, Pernicious anemia, Autoimmune thrombocytopenic purpura Organ-specific autoimmune diseases: Psoriasis, Vitiligo, Bullous pemphigoid, Atopic dermatitis, Chronic idiopathic urticaria, Lichen ruben planus. Oral herpes, canker sores and other pathology of the oral mucosa related to systemic connective tissue diseases, Periodontitis as an immune disease. Myasthenia gravis, MS, demyelinating syndromes/ Guillan – Barre syn. HAE.

Clinical exercises

Solving clinical cases, differential diagnosis of autoimmune diseases.

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)

During the class, the acquired knowledge of the student expressed in the tests, the independent work of the student will be evaluated.

Evaluation/grading of the final written examination:

Percentage of correct answers (%)	Grade points
100%-95%	50
94,99-90%	48
89,99-85%	46
84,99-80%	43
79,99-75%	40
74,99-70%	35
69,99-65%	30
64,99-60%	25

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Evaluation points	
					Min.	Max.
Attending classes	0,5	1-8	Attendance at classes	Records Exercise diary	5	10
Seminar	0.5	1-8	Creating a seminar paper	Presentation	10	20
Exercises	0.5	1-8	Active participation	Exercise diary	10	20
Final exam	0.5	1-8	Studying for the final exam	Written exam	25	50
TOTAL	2				50	100

Calculation of final grade:

Students who achieved 25 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)

	No. of copies in the library	Availability through other media
1. Andreis I, Batinić D, Čulo F, Grčević D, Marušić M, Taradi M, Višnjić D. <i>Imunologija</i> , sedmo izdanje, Medicinska naklada, Zagreb, 2010.	10	
2. David Male, Johnatan Brostoff, David B. Roth, Ivan Roitt. <i>Immunology</i> , Mosby, 2006.	1	

Additional reading

1. Barton F. Haynes, Anthony S. Fauci. *Introduction to the immune system. Harrison's, Rheumatology 2006.* Peter E. Lipsky, Betty Diamond. *Autoimmunity and Autoimmune diseases. Harrison's Rheumatology 2006-odabrana poglavlja.*
2. Anne Davidson, M.B., I Betty Diamond, *Autoimmune Diseases. NEJM Vol 345, 2001*

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.