

Higher education institution: <i>Slovak Medical University in Bratislava</i>	
Faculty: <i>Faculty of Medicine</i>	
Course code: <i>GM 032A</i>	Course title: <i>Immunology (1)</i>
Type, extent and method of educational activity: <i>Number of hours per semester:</i> <i>Lectures: 14/1 hours per week</i> <i>Practices: 2 x 5 hours (blocks)</i> <i>Student workload: 50 hrs.</i>	
Number of credits: <i>2 credits</i>	
Recommended semester/trimester: <i>7th</i>	
Level of higher education study <i>1. + 2. level</i>	
Prerequisite courses (subjects): <i>pathological physiology, internal propedeutics</i>	
Requirements for completion of the course: <i>Continuous assessment of the subject (PH)</i> Student workload: <i>26 hours</i>	
Learning outcomes: <i>The student defines and describes the structure and functions of the immune system, the structure of antigens and antibodies, mechanisms of specific, non-specific immunity and types of immune response. He can describe and comprehensively analyse the results of immunological laboratory methods and apply to practice principles of active and passive immunization, vaccination, knowledge about immunodeficiencies, autoimmune, autoinflammatory diseases, tumour, anti-infective and transplant immunology. He can justify and apply in practice the basic principles for immunomodulatory treatment (immunosuppression, immunostimulation).</i>	
Brief content of the course (syllabus): <i>Introduction into the study of immunology. Immune system (structure, tissues, molecules, functions, immune responses). Mucosal immunity. Inflammation. Diagnostic methods of immunopathologic states (clinical and laboratory diagnostics). Immune disorders and immunopathologic states. Primary and secondary immunodeficiencies. Autoimmune diseases (organ-specific and systemic autoimmune disease). Autoinflammatory diseases. Neoplasms and immunity. Tissue and organ transplantation. Therapy and management of immunopathologic states (immunoprophylaxis, immunosuppression, immunostimulation).</i>	
Recommended literature: <i>ABBAS, A. H. et al. Cellular and Molecular Immunology (10th Edition). New York: Elsevier, 2022, ISBN: 9780323757485 (incl. APPENDIX IV. Laboratory techniques commonly used in immunology.) HELBERT, M. and NAIM, R. Immunology for Medical Students. Philadelphia: Elsevier, 2017, ISBN: 9780702068003 SPICKETT, G. Oxford Handbook of Clinical Immunology and Allergy (4th Edition). Oxford: Oxford University Press, 2020, ISBN 9780198789529 KUMAR, P. and CLARK, M. Kumar and Clark's Clinical Medicine (9th Edition), New York: Elsevier, 2016, ISBN 9780702066016 FERENČIK, M. et al. Dictionary of Immunology (2nd Edition), Bratislava: SAP, 2006</i>	
Language requirements: <i>English</i>	
Notes: <i>The course runs in English language.</i>	
Course assessment: <i>Continuous assessment of the subject (PH)</i>	
Lecturers: <i>doc. MUDr. Norbert Lukán, PhD.</i> <i>doc. MUDr. Peter Pružinec, CSc., mim. prof.</i> <i>doc. RNDr. Mira Horváthová, PhD.</i>	
Date of last modification: <i>15. 01. 2022</i>	
Supervised by: <i>person responsible for realization, development and ensuring of the study program quality</i> <i>prof. MUDr. Iveta Šimková, CSc.</i>	

Higher education institution: <i>Slovak Medical University in Bratislava</i>	
Faculty: <i>Faculty of Medicine</i>	
Course code: <i>GM 032B</i>	Course title: <i>Clinical immunology and allergology (2)</i>
Type, extent and method of educational activity: <i>Number of hours per semester:</i> <i>Lectures: 14/1 hours per week</i> <i>Practices: 2 x 5 hours (blocks)</i> <i>Student workload: 50 hrs.</i>	
Number of credits: <i>2 credits</i>	
Recommended semester/trimester study: <i>8th</i>	
Level of higher education study: <i>1. + 2. Level</i>	
Prerequisite courses (subjects): <i>GM 030A Clinical immunology and allergology (1)</i>	
Requirements for completion of the course: <i>Completion of the course is by participation in lectures. Final exam: (written + oral part). The basic condition for participation in the oral part of the exam is successful completion of the written test: minimum pass: 70%. Rating: A: 95% - 100%, B: 89% - 94%, C: 83% - 88%, D: 77% - 82%, E: 76% - 71%, Fx: 70% and less. Exam: A, B, C, D, E, Fx. Minimum success rate is E</i> Student workload: <i>26 hours</i>	
Learning outcomes: <i>The student defines and describes the mechanisms of allergic reactions. He is able to carry out a practical physical examination of the patient to design the standard examination methods. He can comprehensively analyse clinical status, skin test results, functional tests and imaging methods, including laboratory diagnostics. He applies the obtained analyses to clinical practice and indications of medical treatment.</i>	
Brief content of the course (syllabus): <i>Allergens. Allergy diagnostics (physical findings, skin tests, functional tests, laboratory methods). Allergic diseases: Allergic rhinitis. Asthma bronchiale. Atopic eczema. Contact eczema. Urticaria. Food allergy. Drug allergy. Sting allergy. Anaphylaxis. Occupational allergic diseases. Therapy of allergic diseases.</i>	
Recommended literature: <i>SPICKETT, G. Oxford Handbook of Clinical Immunology and Allergy (4th Edition). Oxford: Oxford University Press, 2020, ISBN 9780198789529</i> <i>KUMAR, P. and CLARK, M. Kumar and Clark's Clinical Medicine (9th Edition), New York: Elsevier, 2016, ISBN 9780702066016</i> <i>RÖCKEN, M. et al. Color Atlas of Allergic Diseases. Stuttgart: Thieme, 2003</i> <i>KAY, A. B. et al. Allergy and Allergic Diseases, Volume 1 - 2 (2nd Edition), Oxford: Wiley-Blackwell, 2008. ISBN 9781405157209</i> <i>HELBERT, M. and NAIM, R. Immunology for Medical Students. Philadelphia: Elsevier, 2017, ISBN: 9780702068003</i> <i>DELVES, P. J. et al. Roitt's Essential Immunology (13th Edition), London: Wiley-Blackwell, 2017. ISBN 9781118415771</i>	
Language requirements: <i>English</i>	
Notes: <i>The course runs in English language.</i>	
Course assessment: <i>Final exam: (written + oral part)</i>	
Lecturers: <i>doc. MUDr. Norbert Lukán, PhD.</i> <i>doc. MUDr. Peter Pružinec, CSc., mim. prof.</i> <i>doc. RNDr. Mira Horváthová, PhD.</i>	
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