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| **Syllabus 2020/2021****training cycle: 2019-2025** |
| **Description of the course** |
| **Module/Course** | **IMMUNOLOGY** |
| **Faculty** | Medicine and Dentistry |
| **Major**  | Medicine |
| **Specialties** | Dentistry |
| **Level of studies** | Uniform magister studies \*1st degree studies **X** 2nd degree studies 3rd degree studies postgraduate studies  |
| **Form of studies** |  full-time part-time |
| **Year of studies**  | **II** | **Semester** |  Winter**X** Summer |
| **Type of course** |  **X** obligatory limited choice free choice / elective  |
| **Course** | **X** major basic |
| **Language of instruction** |  Polish **X** English other |
| \* mark with an **X** |
| **Number of hours** |
| Form of education |
| Unit teaching the course | Lectures (L) | Seminars (SE) | Auditorium classes (AC) | Major Classes – not clinical (MC) | Clinical Classes (CC) | Laboratory Classes (LC) | Classes in Simulated Conditions (CSC) | Practical Classes with Patient (PCP) | Specialist Classes – magister studies (SCM) | Foreign language Course (FLC) | Physical Education obligatory (PE) | Vocational Practice (VP) | Self-Study (Student's own work) | E-learning (EL) |
| **Winter Semester** |
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| **Summer Semester** |
|  |  |  |  | **30** |  |  |  |  |  |  |  |  |  |  |
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| **TOTAL per year:** |
|  |  |  | **30** |  |  |  |  |  |  |  |  |  |  |
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| **Educational objectives** (max. 6 items)**C1. The aim of the teaching is presentation and explanation of basic topics from immunology including: ontogenesis of the immune system.****C2. Explain the role of antigens and humoral antibodies in innate and adoptive immune response.****C3 Describe the regulation of the immune response, the goals of immunotherapy and immunomodulation.****C4. Explain the role of hypersensitivity and pathomechanisms of autoimmune disease and primary and secondary immunodeficiency.****C.5 Explain the role of inflammatory process in immunological response.** |
| **Education result matrix for module/course in relation to verification methods of the intended education result and the type of class** |
| Number of course education result  | Number of major education result  | Student who completes the module/course knows/is able to | Methods of verification of intended education results (forming and summarising) | Form of didactic class*\*\*enter the abbreviation* |
| **W 01****W 02****W 03****W 04****W 05****W 06****W 07****W 08** | **C.W7****C.W8****C.W10****C.W11****C.W12****C.W13****C.W14****C.W16** | **the student: describes the structures of immunological system;****defines the innate and adoptive immunity, mechanisms of hypersensitivity and autoimmunity;****explains the rules of immunomodulation and immunodiagnostic possibilities;****describes pathomechanisms of allergic and autoimmune diseases, primary and secondary immunodeficiency;** **describe the parameters of immunological defects;****explains pathomechanism of auto-immunological disease and their clinical symptoms;****defines the clinical and immunological parameters associated with non-specific immunological response;****defines immunological factors in transplantation**  | **test consist of 30 questions,** **oral presentation prepared by student on immunological topic**  | MC |
| **U 01****U 02****U 03** | **C.U2****C.U3****C.U4** | **student uses immunological test to resolves diagnostic problem in immunological diseases;** **the student performed immunoenzymatic test and explains different immunological results associated with activity of immune system;****resolves the doubts concern risk of dysfunction of immunological system led to disease;** |  |  |
| **K 01** | **K01** | **- the student is able to cooperate in the group during the classis** **- knows how to prepare an oral seminar presentation and activity generate discussion,****- can present immunological topic chosen by himself during seminar** **- is able to collect references for immunological topics.** |  |  |
| \*\* L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .  |
| Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes:Knowledge: **.4…**Skills: **…4.**Social competences: **4..** |
| **Student's amount of work (balance of ECTS points)** |
| **Student's workload** (class participation, activity, preparation, etc.) | **Student Workload (h)** |
| 1. Contact hours: | **30** |
| 2. Student's own work (self-study): | **45,5** |
| Total student's workload | **75,5** |
| **ECTS points for module/course** | **2** |
| Comments  |  |
| **Content of classes** (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects) |
| **Lectures**1.2.3. |
| **Seminars**1.2.3. |
| **Practical classes ( non –clinical)**1. **Development of immune system. Components between different immunological elements of immunological system.****2. Immunoglobulins – role in immunological response , monoclonal antibodies application in therapy** **3. Innate immune response.** **4. Adoptive immune response, antigen presentation. Relation between innate and adoptive response.****5. Regulation of immunological response. Cellular and humoral factors of regulation.****6. Immunomodulation (activation, suppression) of immunological response.** **7 .Immunological tolerance.****8. Autoimmunity and autoimmune disease****9. Hypersensitivity (types I, II, III, IV).****10. Immunological response to infection. The role of immunological protection against infection.****11.The role of immunological mechanisms in transplantation and inflammatory processes..****12. Immunopathology. Immunological protection against cancer development.****13. Immunological aspect of oral cancer development and progression.** |
| **Other****1.****2.****3.***etc. …* |
| **Basic literature** (list according to importance, no more than 3 items)1. D.Male, J. Brostoff, D.B. Roth. I. Roitt. „Immunology”-2014 year 2. J.K. Actor.” Immunology and microbiology. 2012 year**Additional literature and other materials** (no more than 3 items)1. John B. Zabriskie . Essential Clinical Immunology. Cambrige University Press 2009 year.2.3. |
| **Didactic resources requirements** (e.g. laboratory, multimedia projector, other…)**multimedia projector** |
| **Preliminary conditions** (minimum requirements to be met by the student before starting the module/course)**Basic knowledge from biology , pathophysiology** |
| **Conditions to receive credit for the course** (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be med by the student to pass it and criteria for specific grades)IMPORTANT! Class attendance cannot be a condition for passing the subject.**Oral presentation – topic from immunology graded as follow: knowledge (0-4) points; technical preparation of presentation (0-4) points; discussion (0-4) points** **Passed the text cut- off 66% of correct answer**  |
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| **Grade:** | **Criteria** (only for courses/modules ending with an examination) |
| Very Good(5.0) |  |
| Good Plus (4.5) |  |
| Good(4.0) |  |
| Satisfactory Plus (3.5) |  |
| Satisfactory (3.0) |  |
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| **Name and address of module/course teaching unit, contact: telephone and e-mail address**Department of Immunopathology and Molecular Biology, street Bujwida 44, Wrocław julia.bar@umed.wroc.pl..… phone: 697770614…………………………………………………………………………………………………………….…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….……………………………..**Coordinator / Person responsible for module/course, contact: telephone and e-mail address**…Julia Bar email: Julia.bar@umed.wroc.pl phone 697770614………………………………………………………………………………………………………………………………………………………**List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes**.prof. dr hab. Julia Bar medical biology, practical classes ( non-clinical)Dr Iwona Deszcz medical biology, practical classes ( non-clinical).……………………………………………………………………..……………………………………………………………………............……………………………………………………………………………….…………………………………………………………………..……

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| **Date of Syllabus development**  | **Syllabus developed by**  |
| 35.06.2020 year………………………………………….. | …….Julia Bar................. |
| **Signature of Head of teaching unit** |
| …………………………………………………… |

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