STANDARD COURSE SYLLABUS

 for academic year 2014/2015

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| **Syllabus** |
| **Part A - Description of the subject** |
| **Name of the module/subject** | Immunology | **Group of detailed education results** |
| **Group code C** | **Group name before clinical** |
| **Faculty** | Medicine and Dentistry |
| **Major** | Medical |
| **Specialization** |  |
| **Level of studies** | uniform MA studies X\*BA studies MA studiesPhD studiesPost-graduate studies  |
| **Form of studies** | full-time X part-time  |
| **Year of studies** | II | Semester of studies: | IV |
| **Type of class** | obligatory X elective  |
| **Kind of class** | major-oriented X basic  |
| **Language of instruction** | Polish English X other  |
| \*choose accordingly by marking with **X** |
| **Form of instruction** | **Hours** |
| Lecture |  |
| Seminar |  |
| Tutorial |  |
| Major-oriented class (non-clinical) |  |
| Clinical class  |  |
| Laboratory class | 25 |
| Specialization class (MA) |  |
| Simulated conditions class |  |
| Lectorate |  |
| Practical classes with a patient |  |
| Physical education exercises |  |
| Apprenticeship |  |
| Self-study |  |
| Other |  |
| **Total** | 25 |
| **Education aims: The aim of the teaching is presentation and explanation of basic topics from immunology including: ontogenesis of the immune system, the role of antigens and humoral antibodies in innate and adoptive immune response, regulations of the immune response, the goals of immunotherapy and immunomodulation the role of hypersensitivity, the pathomechanisms of autoimmune disease and primary and secondary immunodeficiency** |
| **The methods of verifying the intended education results and the form of class in the context of the matrix of education results for module/subject:** |
| No. of the education result | Student who completes the module/subject will know/be able to: | Methods of verifying whether the intended education results have been achieved (forming and summarizing) | Type of class\*\* enter symbol |
| **C.W7****C.W8****C.W10****C.W11** | the student knows the structures of immunological system,is able to define the innate and adoptive immunity, know mechanisms of hypersensitivity and autoimmunitycan describe the basic of immunodiagnostic procedure and immunomodulations of immunological responseknow pathomechanisms of allergic and autoimmune diseases, primary and secondary immunodeficiency | colloquium, open questions after 3 meetings , finally, test consist of 20 questions | LC |
|  **C. U2****C.U3** **C.U4** | - the student can perform immunoenzymatic test and explain different immunological results associated with activity of immune system- describe the level of immunological reaction- is able to choose proper diagnostic immunological procedure- the student is able to explain dysfunction of immunological system led to development of disease |  |  |
| **C. K 1** | -the student is able to cooperate in the group during the laboratory practice- knows how to prepare an oral seminar presentation- can present immunological topic chosen by himself during seminar - is able to collect references for immunological topics. |  |  |
| \*\* L - lecture; S - seminar; T - tutorial; MC - major-oriented classes (non-clinical); CC - clinical classes; LC - laboratory classes; SC – specialization classes (MA); SC - simulated conditions classes; LE - lectorate; P - practical classes with a patient; PE - physical education classes (obligatory); A - apprenticeship; SS - self-study  |
| Please mark with pluses (scale 1-3) how the abovementioned effects place your module/subject in the sections: passing on knowledge, skills or forming behaviors, e.g.:Knowledge +++Skills +++Behaviors ++ |
| **Student's work input (ECTS points):** |
| **Type of student's work**(participating in class, activity, preparation, tests etc.) | **Student's workload (h)** |
| 1. Hours on-site | 20 |
| 2. Own work | 44.5 |
| Summary of the student's workload | 64.5 |
| **ECTS points per module/subject** | 2 |
| Remarks |  |
| **Subject of class:** (enter the topic of each class, including the division for the type of class; remember the topic of class has to translate into intended education results) |
| **Lectures**1.2.3. |
| **Seminars**1. Development of immune system.
2. Innate and adaptive immune response.
3. Regulation of immunological response
4. Immunomodulation (activation, suppression) of immunological response.
5. Autoimmunity and autoimmune disease
6. Hypersensitivity (types I, II, III, IV)
7. Primary and secondary immunodeficieny
 |
| **Classes** Laboratory 1* Types of biological materials
* Storage and stability (biological materials, antibodies)

Laboratory 2 * Techniques used in immunological practice
* Detection of antigens using immunofluorescence technique.
* Estimation of immunological results

Laboratory **3*** Immunoenzymatic methods

Detection of antigens using ABC methodFluorescence in situ hybridization (FISH)Laboratory **4*** Estimation of immunological specimens, analysis of immunohistochemical results
* Monoclonal antibodies in immunological diagnosis

Laborotroy **5** Completion of the subject - test |
| **Other****1.****2.****3.***etc….* |
| **Basic sources:** (list according to significance, no more than 3 items)1. D.Male, J. Brostoff, D.B. Roth. I. Roitt. „Immunology”-2011 year
2. J.K. Actor.” Immunology and microbiology. 2012 year

**Additional sources and other resources:** (no more than 3 items)1.2.3. |
| **Requirements for teaching resources:** (e.g. laboratory, projector, other...) |
| **Entry requirements:** (the minimum conditions the student has to meet prior to entering the module/class) |
| **Conditions for completing the course:** (what are the terms and conditions of obtaining credits from particular classes within the module/subject, the terms and conditions of being allowed to take the final exam, the terms and conditions for passing the final exam, the requirements for particular grades) |
| **Grade:** | **Grading criteria:** (only for subjects/modules ending with an exam) |
| Very good(5.0) |  |
| Good plus(4.5) |  |
| Good(4.0) |  |
| Sufficiently good (3.5) |  |
| Sufficient (3.0) |  |

**Name and address of unit conducting course, contact information (tel./email):**

Department of Immunopathology and Molecular Biology julia.bar@umed.wroc.pl ………

**Person responsible for the course for a given year** prof. dr hab. Julia Bar ………………………………………………………………………………………………………………..………………………………

**Signature of head of unit conducting the course Signatur**

 Julia Bar

**Date of syllabus drafting:** …15.10. .2014…………………………………………