

Faculty of Medicine

Taborska ulica 8 SI - 2000 Maribor, Slovenia

# UNIFORM MASTER'S DEGREE STUDY PROGRAM GENERAL MEDICINE 2016/2017

# The history of the institution:

The Faculty of Medicine of University of Maribor was established with the Decree on Reforming the University of Maribor, which was unanimously confirmed by the National Assembly of the Republic of Slovenia on October 2, 2003. The Council for Higher Education of RS has confirmed the university study program 'General medicine' on December 3, 2003 and officially published 80 enrolment posts for first students. The first generation of students enrolled in the study year 2004/05.

The Faculty of Medicine is a member of the University of Maribor. Its seat is at Taborska 8. On September 30, 2004, at the University Clinical Center in Maribor on Ljubljanska ulica 5, a building where the Institute for Anatomy, Histology and Embryology and the Institute for Physiology of the Faculty of Medicine of UM are situated was ceremoniously opened.

On January 27, 2006 the renewed premises of the Laboratory Center FM UM on Magdalenski trg 5 were turned over to their purpose. The establishment of the Faculty of Medicine and carrying out the study program of medicine is one of the developmental priorities of the University of Maribor. The progress of medical sciences in the geographical region at the national border in the European Union contributes to the strengthening of the national intellectual potentials.

# The definition of the basic objectives of the program - the general and subject specific competences

# The basic objectives of the program

The basic objective of the proposed uniform master's degree study program General Medicine is to prepare students for autonomous work as doctors.

- In this sense they will acquire knowledge of health, keeping healthy, diseases and preventive steps in the context of an individual and his/her position in the family and society.
- They will acquire the knowledge and abilities of basic clinical skills like assessing the course of a disease, carrying out physical tests and interpretation of test results. They will also have competences for the adequate carrying out of basic technical procedures and skills in communicating with the patients.

• Students will acquire the knowledge necessary for achieving the high standards of medical practice and ethics while caring for individuals and the population the same as for their personal professional development.

Next to restricted objectives that come from medical sciences, with carrying out of the stated uniform master's degree study program General Medicine, also broader social objectives will be realized:

- Improvement of health services and with that the health of the population of the north-eastern part of Slovenia.
- Ensuring enough doctors in the Republic of Slovenia in accordance with the assessment of the Ministry of Health, made on the basis of the analysis of the demographic characteristics of doctor population (see Argumentation for application).
- Ensuring faster development of medical sciences on the regional level and with the cooperation with the Faculty of Medicine of University of Ljubljana on the national level. The University of Maribor represents infrastructural and contents potential also for interdisciplinary cooperation in the scientific and research and educational area, and the basis for further international cooperation.

### The general competences acquired in the program

The uniform master's degree study program General Medicine enables students to acquire expert knowledge of theoretical and methodological concepts, the ability to transfer and use the theoretical knowledge in practice and solve expert and work problems, especially in searching new sources of knowledge and use of scientific methods, developing the capabilities for communication within the science and between sciences, cooperation and working in groups, expert criticism and responsibility, initiative and independence at decision making and managing of the most exacting work. A part of the program is also practical education in the doctors' working environment.

The emphasis of the study program is acquiring general knowledge, analysis of knowledge and synthesis, developing communication skills, working in the international environment; an important element is ethical obligation to the profession and professional ethics, and acquiring knowledge of ethics in medicine and in the area of deontology.

After completing studies, graduates will be competent to work independently in an outpatient's department of general medicine, in the sense of recognizing illnesses and also in the sense of treating them. For their further education specialization is required in the directions that the Medical Chamber requires on the national and European level.

# The subject specific competences acquired in the program

Students will acquire knowledge in the area of preclinical subjects (e.g. anatomy, biochemistry, physiology, etc.) and clinical subjects (internal medicine, surgery, paediatrics, family medicine, etc.). After completing the program they will master:

- they will know and understand the argumentation and the history of medicine development;
- they will be able to solve concrete medical and health problems using scientific methods and procedures;
- they will master basic knowledge in the area of medicine, they will be able to link knowledge from different areas of medicine and apply them;
- they will be able to place new information in the context of medicine;

- they will understand basic structures of medicine and the connection between its sub-disciplines, like individual specializations;
- they will develop skills and abilities in the use of knowledge in the expert area of medicine;
- they will use information-communication technology in the expert area of medicine.

# The cooperation with other foreign institutions (with signed agreements)

The Faculty of Medicine of UM has signed bilateral Erasmus agreements with these faculties:

- MEDIZINISCHE UNIVERSITÄT GRAZ
- MEDIZINISCHE UNIVERSITAET INNSBRUCK
- MEDIZINISCHE UNIVERSITAET WIEN
- UNIVERSITEIT GENT
- UNIVERZITA KARLOVA V PRAZE
- RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN
- HEINRICH-HEINE-UNIVERSITAET DUESSELDORF
- GEORG-AUGUST-UNIVERSITAET GOETTINGEN
- UNIVERSITAET LEIPZIG
- JOHANNES GUTENBERG-UNIVERSITAET MAINZ
- LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN
- EBERHARD KARLS UNIVERSITAET TUEBINGEN
- JULIUS-MAXIMILIANS-UNIVERSITAET WUERZBURG
- UNIVERSITE BORDEAUX SEGALEN
- UNIVERSITE DE BRETAGNE OCCIDENTALE
- SVEUČILIŠTE U RIJECI
- SVEUČILIŠTE U SPLITU
- SEMMELWEIS EGYETEM
- PÉCSI TUDOMÁNYEGYETEM
- UNIVERSITÁ DI PISA
- SS CYRIL AND METHODIUS UNIVERSITY
- UNIVERSIDADE NOVA DE LISBOA
- UNIVERSIDATE DO PORTO
- UNIWERSYTET SLASKI W KATOWICACH
- UNIWERSYTET JAGIELLONSKI
- WARSZAWSKI UNIWERSYTET MEDYCZNY
- UNIWERSYTET MEDYCZNY IM. PIASTÓW SLASKICH WE WROCŁAWIU
- UNIWERSYTET MEDYCZNY IM. PIASTÓW SLASKICH WE WROCŁAWIU
- UNIVERSITATEA DE MEDICINA SI FARMACIE "IULIU HATIEGANU" CLUJ-NAPOCA

Other agreements with these faculties:

- FACULTY OF MEDICINE UNIVERSITY OF SARAJEVO, BOSNIA AND HERCEGOVINA
- FACULTY OF MEDICINE UNIVERSITY OF MOSTAR, BOSNIA AND HERCEGOVINA
- UNIVERSITY BANJA LUKA, BOSNIA AND HERCEGOVINA
- THE HEBREW UNIVERSITY OF JERUSALEM, FACULTY OF MEDICINE, IZRAEL
- TEL AVIV UNIVERSITY, SACLER FACULTY OF MEDICINE, IZRAEL
- VIT UNIVERSITY, VELLORE, INDIA
- MEDICAL FACULTY UNIVERSITY »ST. CYRIL AND METHODIUS« SKOPJE, MACEDONIA
- FACULTY OF MEDICINE UNIVERSITY OF BELGRADE, SRBIA

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- FACULTY OF MEDICINE UNIVERSITY OF NIŠ, SRBIA
- UNIVERSITY OF PITTSBURGH, SCHOOL OF MEDICINE, ZDA
- THE NATIONAL O. BOHOMOLETS MEDICAL UNIVERSITY, UKRAINE
- SCHOOL OF MEDICINE, V.N. KHARKIV NATIONAL UNIVERSITY, KHARKIV, UKRAINE
- PIROGOV RUSSIAN NATIONAL RESEARCH MEDICAL UNIVERSITY, MOSCOW, RUSSIAN FEDARATION

### The programs of mobility for students, higher education teachers and co-workers

The Faculty of Medicine is aware that next to international cooperation in the area of scientific research it is also very important to support the international mobility of students and pedagogical workers. The international cooperation of the faculty in the international higher education environment takes place in the form of student and teacher exchange in the ERASMUS program. The basic idea of mobility is enabling students a free passage and studying at European universities as well as internationalization of students and teachers who stayed at home, etc. The program also supports and encourages the mobility of the teacher staff (TS Mobility). Studies completed abroad are recognized as an integral part of the study program of the Faculty of Medicine. The period that students complete abroad, the FM UM recognizes in full for academic purposes if they have completed all their obligations. Academic recognition makes the use of the European system of credit points ECTS system (*European Credit Transfer System*) easier, which enables the students' mobility with their studies at different universities abroad on the basis of assigning and transferring academic credit points and with this makes the recognition of completed academic obligations of students between partner institutions easier.

Exchange of professors has been going on since the first year of the establishment of the faculty; the first student mobility started in the study year 2007/08. In the study year 2007/08 we have realized first mobility of FM students abroad (Leipzig, Tuebingen, both Germany), and in study year 2008/2009 also received first foreign students (Hungary, Czech Republic).

| Study year | Number of outgoing students | Number of incoming students |
|------------|-----------------------------|-----------------------------|
| 2004/2005  | -                           | -                           |
| 2005/2006  | -                           | -                           |
| 2006/2007  | -                           | -                           |
| 2007/2008  | 4                           | -                           |
| 2008/2009  | 9                           | 4                           |
| 2009/2010  | 24                          | 7                           |
| 2010/2011  | 33                          | 9                           |
| 2011/2012  | 15 study + 13 practise      | 15                          |
| 2012/2013  | 19 study + 18 practise      | 18                          |
| 2013/2014  | 17 study + 12 practise      | 17                          |
| 2014/2015  | 14 study + 5 practise       | 15                          |

#### The mobility of students in Erasmus program

# The list of subjects with credit points of study obligations

# The number and namess of learning units

# **Obligatory subjects** SUBIECT Γ

|     | SUBJECT                                  | SUBJECT HOLDERS  | ECTS |  |  |  |  |  |
|-----|--|--|------|--|--|--|--|--|
| 1.  | Anatomy with Histology and<br>Embryology | Full Prof. Božena Pejković, MD, PhD  | 16   |  |  |  |  |  |
| 2.  | Anaesthesiology                          | Full Prof. Mirt Kamenik, MD, PhD   | 3    |  |  |  |  |  |
| 3.  | Biophysics                               | Full Prof. Milan Brumen, PhD   | 5    |  |  |  |  |  |
| 4.  | Biochemistry                             | Full Prof. Uroš Potočnik, PhD  | 7    |  |  |  |  |  |
| 5.  | Cell Biology                             | Assoc. Prof. Saška Lipovšek, UDB, PhD  | 7    |  |  |  |  |  |
| 6.  | Dermatovenerology                        | Assoc. Prof. Jovan Miljkovič, MD, PhD  | 4    |  |  |  |  |  |
| 7.  | Family Medicine I                        | Assoc. Prof. Jovan Miljkovič, MD, PhD<br>Assist. Prof. Zalika Klemenc Ketiš, MD, |      |  |  |  |  |  |
|     |  | PhD  | 6    |  |  |  |  |  |
|     |  | Assist. Prof. Ksenija Tušek Bunc, MD, PhD  |      |  |  |  |  |  |
| 8.  | Family Medicine II                       | Assist. Prof. Zalika Ketiš Klemenc, MD,<br>PhD                                   | 6    |  |  |  |  |  |
|     |  | Assist. Prof. Ksenija Tušek Bunc, MD, PhD  |      |  |  |  |  |  |
| 9.  | Physical and Rehabilitation Medicine     | Assoc. Prof. Breda Jesenšek Papež, MD,   | 3    |  |  |  |  |  |
|     |  | PhD  |      |  |  |  |  |  |
| 10. | Physiology                               | Full Prof. Marjan Slak Rupnik, PhD   | 21   |  |  |  |  |  |
|     |  | Assist. Prof. Andraž Stožer, MD, PhD   |      |  |  |  |  |  |
| 11. | Pharmacology with Toxicology             | Assist. Prof. Polonca Ferk; PhD  | 10   |  |  |  |  |  |
| 12. | Infectious Diseases                      | Assoc. Prof. Gorazd Lešničar, MD, PhD  | 5    |  |  |  |  |  |
| 13. | Internal Medicine – working with         | Full Prof. Breda Pečovnik Balon, MD, PhD   | 18   |  |  |  |  |  |
|     | patients                                 | Full Prof. Ivan Krajnc, MD, PhD (co-   |      |  |  |  |  |  |
|     |  | subject holder)  |      |  |  |  |  |  |
|     |  | Full Prof. Radovan Hojs, MD, PhD (co-  |      |  |  |  |  |  |
|     |  | subject holder)  |      |  |  |  |  |  |
| 14. | Internal Medicine with Propedeutics      | Full Prof. Ivan Krajnc, MD, PhD  | 20   |  |  |  |  |  |
|     |  | Full Prof. Breda Pečovnik Balon, MD, PhD   |      |  |  |  |  |  |
|     |  | (co-subject holder)  |      |  |  |  |  |  |
|     |  | Full Prof. Radovan Hojs, MD, PhD (co-  |      |  |  |  |  |  |
|     |  | subject holder)  |      |  |  |  |  |  |
| 15. | Public Health                            | Assoc. Prof. Ivan Eržen, MD, PhD   | 5    |  |  |  |  |  |
| 16. | Chemistry                                | Full Prof. Željko Knez, UDCh, PhD  | 4    |  |  |  |  |  |
| 17. | Surgery                                  | Assoc. Prof. Kazimir Miksić, MD, PhD   | 18   |  |  |  |  |  |
|     |  | Full Prof. Anton Crnjac, MD, PhD   |      |  |  |  |  |  |
|     |  | (co-subject holder)  |      |  |  |  |  |  |
| 18. | Surgery – working with patients          | Full Prof. Anton Crnjac, MD, PhD   | 12   |  |  |  |  |  |
|     |  | Assoc. Prof. Kazimir Miksić, MD, PhD (co-  |      |  |  |  |  |  |
|     |  | subject holder)  |      |  |  |  |  |  |
| 19. | Clinical Biochemistry                    | Assist. Prof. Pika Meško Brguljan, UDCh,   | 3    |  |  |  |  |  |
|     |  | PhD  |      |  |  |  |  |  |
| 20. | Clinical Pharmacology                    | Assoc. Prof. Sebastjan Bevc, MD, PhD   | 3    |  |  |  |  |  |
| 21. | Clinical psychology and                  | Assoc. Prof. Bojan Zalar, MD, PhD  | 4    |  |  |  |  |  |
|     | communication skills in medicine         |  |      |  |  |  |  |  |
| 22. | Medical Ethics and Law                   | Full Prof. Matjaž Zwitter, MD, PhD   | 3    |  |  |  |  |  |
| 23. | Microbiology                             | Full Prof. Maja Rupnik, UDB, PhD   | 6    |  |  |  |  |  |
| 24. | Molecular Biology with Genetics          | Full Prof. Nadja Kokalj Vokač, UDB, PhD  | 5    |  |  |  |  |  |
| 25. | Neurosurgery                             | Full Prof. Tadej Strojnik, MD, PhD   | 4    |  |  |  |  |  |

| 26. | Neurology                           | Assoc. Prof. Tanja Hojs Fabjan, MD, PhD    | 5  |  |  |  |
|-----|-------------------------------------|--|----|--|--|--|
| 27. | Ophthalmology                       | Full Prof. Dušica Pahor, MD, PhD           | 5  |  |  |  |
| 28. | Oncology and Radiotherapy           | Assoc. Prof. Marko Hočevar                 | 5  |  |  |  |
|     |                                     | Assist. Prof. Irena Oblak                  |    |  |  |  |
| 29. | Orthopeadics                        | Assoc. Prof. Matjaž Vogrin                 | 3  |  |  |  |
|     |                                     | Assoc. Prof. Samo K. Fokter (co-subject    |    |  |  |  |
|     |                                     | holder)                                    |    |  |  |  |
| 30. | Otorhinolaryngology                 | Assist. Prof. Bogdan Čižmarevič            | 5  |  |  |  |
|     |                                     | Assist. Prof. Janez Rebol (co-subject      |    |  |  |  |
|     |                                     | holder)                                    |    |  |  |  |
| 31. | Pathology I                         | Full Prof. Rastko Golouh, MD, PhD          | 3  |  |  |  |
| 32. | Pathology II                        | Full Prof. Rastko Golouh, MD, PhD          | 8  |  |  |  |
| 33. | PBL I – Anatomy and Preclinical     | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
|     | ,<br>Basics I                       |  |    |  |  |  |
| 34. | PBL II - Anatomy and Preclinical    | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
|     | Basics II                           |  | -  |  |  |  |
| 35. | PBL III – Basic Physiology –        | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
| 55. | Pathophysiology I                   |  | 5  |  |  |  |
| 36. | PBL VI – Basic Physiology –         | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
| 50. | Pathophysiology II                  |  | J  |  |  |  |
| 37. | PBL V – Clinic 1                    | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
| 38. | PBL VI – Clinic 2                   | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
|     | PBL VII – Clinic 3                  | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
| 39. |                                     |  |    |  |  |  |
| 40. | PBL VIII – Clinic 4                 | Full Prof. Radovan Hojs, MD, PhD           | 3  |  |  |  |
| 41. | Gynaecology and Obstetrics          | Full Prof. Iztok Takač, MD, PhD            | 11 |  |  |  |
| 42. | Psychiatry                          | Full Prof. Blanka Kores Plesničar, MD, PhD | 9  |  |  |  |
| 43. | Paediatrics                         | Full Prof. Dušanka Mičetić – Turk, MD,     | 14 |  |  |  |
|     |                                     | PhD  |    |  |  |  |
| 44. | Paediatrics – working with patients | Full Prof. Dušanka Mičetić – Turk, MD,     | 7  |  |  |  |
|     |                                     | PhD  |    |  |  |  |
|     |                                     | Assoc. Prof. Nataša Marčun Varda, MD,      |    |  |  |  |
|     |                                     | PhD (co-subject holder)                    |    |  |  |  |
| 45. | Health Psychology                   | Assist. Prof. Zlatka Rakovec Felser, PhD   | 3  |  |  |  |
| 46. | Radiology                           | Assist. Prof.Tomaž Šeruga,MD,PhD           | 4  |  |  |  |
| 47. | Forensic Medicine                   | Full Prof. Jože Balažic, MD, PhD           | 3  |  |  |  |
| 48. | Introduction to Research Work       | Full Prof. Pavel Skok, MD, PhD             | 5  |  |  |  |
|     |                                     | Assoc. Prof. Dejan Dinevski; PhD (co-      |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |
| 49. | Introduction to Medicine I          | Assoc. Prof. Dušan Mekiš, MD, PhD          | 4  |  |  |  |
|     |                                     | Assist. Prof. Gregor Pivec, MD, PhD (co-   |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |
|     |                                     | Assist. Prof. dr. Aleš Maver, PhD (co-     |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |
| 50. | Introduction to Medicine II         | Assist. Prof. Andrej Naterer, PhD          | 5  |  |  |  |
|     |                                     | Full Prof. Nada Šabec, PhD (co-subject     |    |  |  |  |
|     |                                     | holder)                                    |    |  |  |  |
|     |                                     | Assoc. Prof. Dejan Dinevski, MD, PhD (co-  |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |
|     |                                     | Assoc. Prof. Ivan Eržen, MD, PhD (co-      |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |
| 51. | Environmental Influences and Health | Assoc. Prof. Ivan Eržen, MD, PhD           | 5  |  |  |  |
| 51. |                                     | Full Prof. Radovan Hojs, MD, PhD (co-      | J  |  |  |  |
|     |                                     |  |    |  |  |  |
|     |                                     | subject holder)                            |    |  |  |  |

| Assoc. Prof. Andrej Čretnik, MD, PhD (co- |  |
|---|--|
| subject holder)                           |  |
| Assist. Prof. Bogdan Čizmarevič, MD, PhD  |  |
| (co-subject holder)                       |  |

#### Table 13: Selective subjects

|     | SUBJECT  | SUBJECT HOLDER   | ECTS |
|-----|--|--|------|
| 1.  | Selected Topics and Innovation in<br>Biophysics and Medical Physics    | Full Prof. Milan Brumen, PhD   | 3    |
| 2.  | Selected Topics and Innovation in<br>Biochemistry                      | Full Prof. Uroš Potočnik, PhD  | 3    |
| 3.  | Selected Topics and Innovation in<br>Molecular Biology                 | Full Prof. Uroš Potočnik, PhD  | 3    |
| 4.  | Selected Topics and Innovation in<br>Genetics and Genomics in Medicine | Full Prof. Uroš Potočnik, PhD  | 3    |
| 5.  | Selected Topics and Innovation in<br>Anatomy                           | Full Prof. Božena Pejković, MD, PhD  | 3    |
| 6.  | Medicine and Sport 1   | Assoc. Prof. Matjaž Vogrin, MD, PhD  | 3    |
| 7.  | Health Care  | Assoc. Prof. Majda Pajnkihar , PhD<br>Prof. Anthony Butterworth, MD, PhD                           | 3    |
| 8.  | Basics of Law and Economics in Health<br>Service                       | Assoc. Prof. Borut Bratina, PhD<br>Full Prof. Žan Jan Oplotnik, PhD<br>(co-subject holder)         | 3    |
| 9.  | Selected Topics and Innovation in<br>Histology and Embryology          | Full Prof. Draga Štiblar Martinčič, MD,<br>PhD   | 3    |
| 10. | Selected Topics and Innovation in<br>Physiology                        | Full Prof. Marjan Slak Rupnik, PhD<br>Assist. Prof. Andraž Stožer, MD, PhD                         | 3    |
| 11. | Selected Topics and Innovation in<br>Microbiology                      | Full Prof. dr. Maja Rupnik, UDB, PhD   | 3    |
| 12. | Selected Topics and Innovation in<br>Medical Information Science       | Assoc. Prof. Dejan Dinevski, MD, PhD   | 3    |
| 13. | Selected Topics and Innovation in<br>Pharmacology                      | Assist. Prof. Polonca Ferk, PhD  | 3    |
| 14. | Communication in Medicine  | Assist. Prof. Andrej Naterer   | 3    |
| 15. | Selected Topics and Innovation in Internal Medicine                    | Full Prof. Breda Pečovnik Balon, MD, PhD<br>Full Prof. Ivan Krajnc, MD, PhD<br>(co-subject holder) | 3    |
| 16. | Selected Topics and Innovation in Surgery                              | Full Prof. Anton Crnjac, MD, PhD Assoc.<br>Prof. Kazimir Miksić, MD, PhD<br>(co-subject holder)    | 3    |
| 17. | Selected Topics and Innovation in Radiology                            | Assist. Prof. Tomaž Šeruga, MD, PhD  | 3    |
| 18. | Selected topics and novelties in propedeutics                          | Assoc. Prof. Sebastjan Bevc, MD, PhD   | 3    |
| 19. | Medicine and sport 2   | Assoc. Prof. Matjaž Vogrin, MD, PhD  | 3    |
| 20. | Selected Topics and Innovation<br>Paediatrics                          | Full Prof. Dušanka Mičetić – Turk, MD,<br>PhD  | 3    |
| 21. | Selected Topics and Innovation in<br>Family Medicine                   | Assist. Prof. Ksenija Tušek Bunc, MD, PhD  | 3    |
| 22. | Selected Topics and Innovation in<br>Ophthalmology                     | Full Prof. Dušica Pahor, MD, PhD   | 3    |
| 23. | Selected Topics and Innovation in<br>Anaesthesiology                   | Full Prof. Mirt Kamenik, MD, PhD   | 3    |

| 24. | Selected Topics and Innovation in<br>Pathology  | Full Prof. Rastko Golouh, MD, PhD  | 3 |
|-----|---|--|---|
| 25. | Selected Topics and Innovation in<br>Medical Ethics and Law                               | Full Prof. Matjaž Zwitter, MD, PhD   | 3 |
| 26. | Selected Topics and Innovation in<br>Otorhinolaryngology and Surgery of<br>Head and Neck  | Assist. Prof. Bogdan Čižmarevič, MD, PhD<br>Assist. Prof. Janez Rebol, MD, PhD                   | 3 |
| 27. | Emergency Medicine  | Assoc. Prof. Dušan Mekiš, MD, PhD  | 3 |
| 28. | Selected Topics and Innovation in Gynaecology and Obstetrics                              | Full Prof. Iztok Takač, MD, PhD  | 3 |
| 29. | Selected Topics and Innovation in Public<br>Health  | Assoc. Prof. Ivan Eržen, MD, PhD   | 3 |
| 30. | Selected Topics and Innovation in Neurology   | Assoc. Prof. Tanja Hojs Fabjan, MD, PhD  | 3 |
| 31. | Selected Topics and Innovation in Dermatovenerology                                       | Assoc. Prof Jovan Miljković, MD, PhD   | 3 |
| 32. | Selected Topics and Innovation in<br>Psychiatry   | Full Prof. Blanka Kores Plesničar, MD, PhD   | 3 |
| 33. | Selected Topics and Innovation in Geriatrics  | Full Prof. Radovan Hojs, MD, PhD<br>Assoc. Prof. Marjan Skalicky, MD, PhD<br>(co-subject holder) | 3 |
| 34. | Surgical Views on Medicine in Extreme<br>Conditions                                       | Assoc. Prof. Andrej Čretnik, MD, PhD   | 3 |
| 35. | Tropical medicine   | Assoc. Prof. Gorazd Lešničar, MD, PhD  | 3 |
| 36. | Selected Topics and Innovation in Oncology and Radiotherapy                               | Assoc. Prof. Marko Hočevar, MD, PhD  | 3 |
| 37. | Biostatistics in Research Work  | Full Prof. Pavel Skok, MD, PhD<br>Assoc. Prof. Gorazd Lešnjak, PhD<br>(co-subject holder)        | 3 |
| 38. | Biomedical technology in clinical settings and simulators                                 | Assoc. Prof. Miljenko Križmarič, PhD<br>Full Prof. Mirt Kamenik, MD, PhD                         | 3 |
| 39. | Simulation of Endoscopic and<br>Ultrasound Examination in Internal<br>Medicine            | Assoc. Prof. Marjan Skalicky, MD, PhD  | 3 |
| 40. | Basics of Palliative medicine and Palliative Care   | Assoc. Prof. Nevenka Krčevski Škvarč,<br>MD, PhD   | 3 |
| 41. | Beginning and the types of pain and<br>appropriate management of the patient<br>with pain | Assoc. Prof. Nevenka Krčevski Škvarč,<br>MD, PhD   | 3 |
| 42. | Communication and relationship building metween physician and patient                     | Assist. Prof. Zalika Klemenc Ketiš   | 3 |
| 43. | English for Medicine  | Full Prof. Nada Šabec  | 3 |
| 44. | Evidence based medicine   | Full Prof. Dušanka Mičetić Turk<br>Assist. Prof. Uroš Maver                                      | 3 |

In the first and second study year the selective subjects are extended topics of preclinical subjects, in the third, fourth, fifth and sixth study year the selective subjects are extended topics of clinical subjects. Selective subjects are carried out only if 10 or more students have chosen them. If a selective subject is on the list in more than one study year, students can choose it only once in six years of studies.

#### The type and portion of learning units in regard to their inclusion in the program structure The subject list

#### 1<sup>st</sup> year, 1<sup>st</sup> semester

| No.   | Subject                         | LEC | SE  | LP  | СН  | IW  | HOURS | ECTS |
|-------|---------------------------------|-----|-----|-----|-----|-----|-------|------|
|       |                                 |     |     |     |     |     | total |      |
| 1.    | Anatomy with                    | 45  | 20  | 60  | 120 | 90  | 210   | 7    |
|       | Histology and                   |     |     |     |     |     |       |      |
|       | Embryology                      |     |     |     |     |     |       |      |
| 2.    | Cell Biology                    | 45  | 30  | 45  | 120 | 90  | 210   | 7    |
| 3.    | Chemistry                       | 30  | 0   | 30  | 60  | 60  | 120   | 4    |
| 4.    | Biophysics                      | 30  | 15  | 30  | 75  | 75  | 150   | 5    |
| 5.    | PBLI - Anatomy and              | 0   | 45  | 0   | 45  | 45  | 90    | 3    |
|       | Preclinical Basics I            |     |     |     |     |     |       |      |
| 6.    | Introduction to                 | 45  | 0   | 45  | 90  | 30  | 120   | 4    |
|       | Medicine I                      | 15  |     | 45  |     |     |       |      |
|       | First Aid                       | 15  |     |     |     |     |       |      |
|       | History of                      |     |     |     |     |     |       |      |
|       | Medicine                        | 15  |     |     |     |     |       |      |
|       | <ul> <li>Terminology</li> </ul> |     |     |     |     |     |       |      |
| total |                                 | 195 | 110 | 210 | 510 | 390 | 905   | 30   |

# 1<sup>st</sup> year, 2<sup>nd</sup> semester

| No.   | Subject                                       | LEC | SE  | LP  | СН  | IW  | HOURS<br>total | ECTS |
|-------|---|-----|-----|-----|-----|-----|----------------|------|
| 1.    | Anatomy with<br>Histology and<br>Embryology   | 45  | 25  | 60  | 135 | 135 | 270            | 9    |
| 7.    | Biochemistry                                  | 60  | 30  | 30  | 120 | 90  | 210            | 7    |
| 8.    | Molecular Biology with<br>Genetics            | 30  | 15  | 15  | 60  | 90  | 150            | 5    |
| 9.    | PBL II - Anatomy and<br>Preclinical Basics II | 0   | 45  | 0   | 45  | 45  | 90             | 3    |
| 10.   | Selective subject 1                           | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| 11.   | Selective subject 2                           | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| total |   | 145 | 195 | 105 | 450 | 450 | 895            | 30   |

Selective subjects 1 and 2: the layout of hours is valid only in the case if students do not choose the selective subject Medicine and Sport 1 or Selected Topics and Innovation in Histology and Embryology.

# Selective subjects 1<sup>st</sup> year

| No. | Selective subject  | LEC | SE | LP | СН | IW | HOURS       | ECTS |
|-----|--|-----|----|----|----|----|-------------|------|
| 1   | Selected Topics and<br>Innovation in Biophysics<br>and Medical Physics       | 5   | 40 | 0  | 45 | 45 | total<br>90 | 3    |
| 2   | Selected Topics and<br>Innovation in<br>Biochemistry                         | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 3   | Selected Topics in<br>Innovation in Molecular<br>Biology                     | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 4   | Selected Topics and<br>Innovation in Genetics<br>and Genomics in<br>Medicine | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 5   | Selected Topics and<br>Innovation in Anatomy                                 | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 6   | Medicine and Sport 1   | 25  | 0  | 20 | 45 | 45 | 90          | 3    |
| 7   | Health Care  | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 8   | Basics of Law and<br>Economics in Health<br>Services                         | 5   | 40 | 0  | 45 | 45 | 90          | 3    |
| 9   | Selected Topics and<br>Innovation in Histology<br>and Embryology             | 5   | 35 | 5  | 45 | 45 | 90          | 3    |

Individual selective subjects will be carried out only if at least 10 students will apply for them.

# 2<sup>nd</sup> year, 3<sup>rd</sup> semester

| No.   | Subject                             | LEC | SE  | LP  | СН  | IW  | HOURS | ECTS |
|-------|-------------------------------------|-----|-----|-----|-----|-----|-------|------|
|       |                                     |     |     |     |     |     | total |      |
| 12.   | Physiology                          | 90  | 30  | 120 | 240 | 240 | 480   | 16   |
| 13.   | Microbiology                        | 30  | 30  | 30  | 90  | 90  | 180   | 6    |
| 14.   | PBL III - Basic                     | 0   | 45  | 0   | 45  | 45  | 90    | 3    |
|       | Physiology-                         |     |     |     |     |     |       |      |
|       | Pathophysiology I                   |     |     |     |     |     |       |      |
| 15.   | Introduction to                     | 50  | 35  | 25  | 110 | 40  | 150   | 5    |
|       | Medicine II                         | 15  | 15  |     |     |     |       |      |
|       | <ul> <li>Sociology</li> </ul>       | 10  |     | 5   |     |     |       |      |
|       | <ul> <li>Introduction to</li> </ul> |     |     |     |     |     |       |      |
|       | Public Health                       | 10  | 20  |     |     |     |       |      |
|       | Medical                             |     |     |     |     |     |       |      |
|       | English                             | 15  |     | 20  |     |     |       |      |
|       | Medical                             |     |     |     |     |     |       |      |
|       | Information                         |     |     |     |     |     |       |      |
|       | Science                             |     |     |     |     |     |       |      |
| total |                                     | 170 | 140 | 175 | 485 | 415 | 900   | 30   |

#### 2<sup>nd</sup> year, 4<sup>th</sup> semester

| No.   | Subject   | LEC | SE  | LP  | СН  | IW  | HOURS<br>total | ECTS |
|-------|---|-----|-----|-----|-----|-----|----------------|------|
| 12.   | Physiology  | 30  | 0   | 60  | 90  | 60  | 150            | 5    |
| 16.   | Pharmacology with<br>Toxicology                     | 57  | 0   | 63* | 120 | 180 | 300            | 10   |
| 17.   | Health Psychology                                   | 30  | 20  | 20  | 70  | 20  | 90             | 3    |
| 18.   | Pathology I<br>(General<br>Pathology)               | 30  | 27  | 3   | 60  | 30  | 90             | 3    |
| 19.   | PBL IV - Basic<br>Physiology-<br>Pathophysiology II | 0   | 45  | 0   | 45  | 45  | 90             | 3    |
| 20.   | Selective subject 3                                 | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| 21.   | Selective subject 4                                 | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| total | ·   | 157 | 225 | 93  | 475 | 425 | 900            | 30   |

Selective subjects 3 in 4: the layout of hours is valid only if students do not choose the selective subject Selected topics and Innovation in Pharmacology.

\* Pharmacology with Toxicology: 53 hours will be carried out as seminar work, 10 hours will be carried oout as lab work

#### Selective subjects 2<sup>nd</sup> year

| No. | Selective subject   | LEC | SE | LP | СН | IW | HOURS<br>total | ECTS |
|-----|---|-----|----|----|----|----|----------------|------|
| 1   | Selected Topics and<br>Innovation in<br>Physiology                  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 2   | Selected Topics and<br>Innovation in<br>Microbiology                | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 3   | Selected Topics and<br>Innovation in Medical<br>Information Science | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 4   | Selected Topics and<br>Innovation in<br>Pharmacology                | 2   | 40 | 3  | 45 | 45 | 90             | 3    |
| 5   | Communication in Medicine   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |

Individual selective subjects will be carried out only if at least 10 students will apply for them.

# 3<sup>rd</sup> year, 5<sup>th</sup> semester

| No.   | Subject                                | LEC | SE  | СР  | СН  | IW  | HOURS<br>total | ECTS |
|-------|--|-----|-----|-----|-----|-----|----------------|------|
| 22.   | Internal Medicine<br>with Propedeutics | 30  | 77  | 43  | 150 | 180 | 330            | 11   |
| 23.   | Surgery                                | 30  | 45  | 30  | 105 | 105 | 210            | 7    |
| 24.   | Radiology                              | 15  | 15  | 30  | 60  | 30  | 90             | 3    |
| 25.   | Orthopeadics                           | 15  | 15  | 15  | 45  | 45  | 90             | 3    |
| 26.   | Clinical Biochemistry                  | 15  | 15  | 30  | 60  | 30  | 90             | 3    |
| 27.   | PBL V - Clinic 1                       | 0   | 45  | 0   | 45  | 45  | 90             | 3    |
| total |  | 90  | 212 | 148 | 465 | 435 | 900            | 30   |

# 3<sup>rd</sup> year, 6<sup>th</sup> semester

| No.   | Subject                                | LEC | SE  | СР | СН  | IW  | HOURS<br>total | ECTS |
|-------|--|-----|-----|----|-----|-----|----------------|------|
| 22.   | Internal Medicine<br>with Propedeutics | 30  | 75  | 30 | 135 | 135 | 270            | 9    |
| 23.   | Surgery                                | 30  | 75  | 45 | 150 | 120 | 270            | 9    |
| 28.   | Anaesthesiology                        | 15  | 15  | 15 | 45  | 45  | 90             | 3    |
| 29.   | PBL VI – Clinic 2                      | 0   | 45  | 0  | 45  | 45  | 90             | 3    |
| 30.   | Selective subject 5                    | 5   | 40  | 0  | 45  | 45  | 90             | 3    |
| 31.   | Selective subject 6                    | 5   | 40  | 0  | 45  | 45  | 90             | 3    |
| total |  | 85  | 290 | 90 | 465 | 435 | 900            | 30   |

Selective subjects 5 in 6: the layout of hours is valid only if students do not choose the selective subject Selected topics and novelties in propedeutics.

## Selective subjects 3<sup>rd</sup> year

| No. | Selective subject   | LEC | SE | SW | СН | IW | HOURS<br>total | ECTS |
|-----|---|-----|----|----|----|----|----------------|------|
| 1   | Communication in Medicine                                 | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 2   | Selected Topics and<br>Innovation in<br>Internal Medicine | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 3   | Selected Topics and<br>Innovation in<br>Surgery           | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 4   | Selected Topics and<br>Innovation in<br>Radiology         | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 5   | Selected topics and<br>novelties in<br>propedeutics       | 0   | 5  | 46 | 0  | 39 | 90             | 3    |

| 6 | Simulation of     | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|---|-------------------|---|----|---|----|----|----|---|
|   | Endoscopic and    |   |    |   |    |    |    |   |
|   | Ultrasound        |   |    |   |    |    |    |   |
|   | Examination in    |   |    |   |    |    |    |   |
|   | Internal Medicine |   |    |   |    |    |    |   |

Individual selective subjects will be carried out only if at least 10 students will apply for them. Selective subjects 5 and 6: the layout of hours is valid only in the case if students do not choose the selective subject Selected topics and novelties in propedeutics.

### 4<sup>th</sup> year, 7<sup>th</sup> semester

| No.   | Subject  | LEC | SE  | СР  | СН  | IW  | HOURS | ECTS |
|-------|--|-----|-----|-----|-----|-----|-------|------|
|       |  |     |     |     |     |     | total |      |
| 32.   | Paediatrics  | 45  | 75  | 90  | 210 | 210 | 420   | 14   |
| 33.   | Clinical psychology and<br>communication skills in<br>medicine | 15  | 45  | 0   | 0   | 60  | 120   | 4    |
| 34.   | Family Medicine I  | 15  | 30  | 60  | 105 | 75  | 180   | 6    |
| 35.   | PBL VII – Clinic 3   | 0   | 45  | 0   | 45  | 45  | 90    | 3    |
| 36.   | Physical and<br>Rehabilitation Medicine                        | 15  | 15  | 15  | 45  | 45  | 90    | 3    |
| total |  | 90  | 210 | 165 | 465 | 435 | 900   | 30   |

#### 4<sup>th</sup> year, 8<sup>th</sup> semester

| No.   | Subject                | LEC | SE  | СР  | СН  | IW  | HOURS<br>total | ECTS |
|-------|------------------------|-----|-----|-----|-----|-----|----------------|------|
| 37.   | Medical Ethics and Law | 15  | 30  | 0   | 45  | 45  | 90             | 3    |
| 38.   | Forensic Medicine      | 15  | 30  | 15  | 60  | 30  | 90             | 3    |
| 39.   | Pathology II           | 30  | 45  | 45  | 120 | 120 | 240            | 8    |
|       | (Systematic Pathology) |     |     |     |     |     |                |      |
| 40.   | Ophthalmology          | 20  | 25  | 30  | 75  | 75  | 150            | 5    |
| 41.   | Otorhinolaryngology    | 20  | 25  | 30  | 75  | 75  | 150            | 5    |
| 42.   | Selective subject 7    | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| 43.   | Selective subject 8    | 5   | 40  | 0   | 45  | 45  | 90             | 3    |
| total |                        | 110 | 235 | 120 | 465 | 435 | 900            | 30   |

Selective subjects 7 and 8: the layout of hours is valid only if students do not choose the selective subject Medicine and Sport 2.

# Selective subjects 4<sup>th</sup> year

| No. | Selective subject  | LEC | SE | СР | СН | IW | HOURS<br>total | ECTS |
|-----|--|-----|----|----|----|----|----------------|------|
| 1   | Communication in<br>Medicine   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 2   | Medicine and Sport 2   | 25  | 0  | 20 | 45 | 45 | 90             | 3    |
| 3   | Selected Topics and<br>Innovation in<br>Paediatrics  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 4   | Selected Topics and<br>Innovation in Family<br>Medicine  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 5   | Selected Topics and<br>Innovation in<br>Ophthalmology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 6   | Selected Topics and<br>Innovation in<br>Anaesthesiology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 7   | Selected Topics and<br>Innovation in Pathology   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 8   | Selected Topics and<br>Innovation in Medical<br>Ethics and Law                                 | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 9   | Selected Topics and<br>Innovation in<br>Otorhinolaryngology<br>and Surgery of Head<br>and Neck | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 10  | Emergency Medicine   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 11  | Biomedical technology<br>in clinical settings and<br>simulators                                | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 12  | Simulation of<br>Endoscopic and<br>Ultrasound Examination<br>in Internal Medicine              | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 13  | Basics of Law and<br>Economics in Health<br>Services   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 14  | Selected Topics and<br>Innovation in Histology<br>and Embryology                               | 5   | 35 | 5  | 45 | 45 | 90             | 3    |
| 15  | English for Medicine   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 16  | Evidence based<br>medicine   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |

Individual selective subjects will be carried out only if at least 10 students will apply for them.

### 5<sup>th</sup> year, 9<sup>th</sup> semester

| No.   | Subject                                   | LEC | SE  | СР | СН  | IW  | HOURS<br>total | ECTS |
|-------|---|-----|-----|----|-----|-----|----------------|------|
| 44.   | Dermatovenerology                         | 15  | 30  | 15 | 60  | 60  | 120            | 4    |
| 45.   | Psychiatry                                | 30  | 75  | 30 | 135 | 135 | 270            | 9    |
| 46.   | Neurology                                 | 15  | 30  | 15 | 60  | 90  | 150            | 5    |
| 47.   | Neurosurgery                              | 15  | 45  | 0  | 60  | 60  | 120            | 4    |
| 48.   | Clinical Pharmacology                     | 15  | 30  | 0  | 45  | 45  | 90             | 3    |
| 49.   | Environmental Influences and              | 25  | 30  | 30 | 85  | 65  | 150            | 5    |
|       | Health                                    | 10  | 10  | 15 |     |     |                |      |
|       | <ul> <li>Environmental</li> </ul>         | 5   | 10  |    |     |     |                |      |
|       | Medicine                                  | 5   | 10  |    |     |     |                |      |
|       | Geriatrics                                |     |     |    |     |     |                |      |
|       | Medicine in                               | 5   |     | 15 |     |     |                |      |
|       | <b>Emergency Conditions</b>               |     |     |    |     |     |                |      |
|       | <ul> <li>Maxillofacial Surgery</li> </ul> |     |     |    |     |     |                |      |
|       | with Basic                                |     |     |    |     |     |                |      |
|       | Stomatology                               |     |     |    |     |     |                |      |
| total |   | 115 | 240 | 90 | 445 | 455 | 900            | 30   |

# 5<sup>th</sup> year, 10<sup>th</sup> semester

| No.   | Subject                    | LEC | SE  | СР  | СН  | IW  | HOUR<br>S<br>total | ECTS |
|-------|----------------------------|-----|-----|-----|-----|-----|--------------------|------|
| 50.   | Infectious Diseases        | 15  | 30  | 15  | 60  | 90  | 150                | 5    |
| 51.   | Public Health              | 15  | 30  | 15  | 60  | 90  | 150                | 5    |
| 52.   | Gynaecology and Obstetrics | 45  | 75  | 75  | 180 | 150 | 330                | 11   |
| 53.   | PBL VIII - Clinic 4        | 0   | 45  | 0   | 45  | 45  | 90                 | 3    |
| 54.   | Selective subject 9        | 5   | 40  | 0   | 45  | 45  | 90                 | 3    |
| 55.   | Selective subject 10       | 5   | 40  | 0   | 45  | 45  | 90                 | 3    |
| total |                            | 85  | 260 | 105 | 435 | 465 | 900                | 30   |

Selective subjects 9 and 10: the layout of hours is valid only if students do not choose the selective subject Medicine and Sport 2.

# Selective subjects 5th year

| No. | Selective subject   | LEC | SE | СР | СН | IW | HOURS<br>total | ECTS |
|-----|---|-----|----|----|----|----|----------------|------|
| 1   | Communication in Medicine                                       | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 2   | Medicine and Sport 2  | 25  | 0  | 20 | 45 | 45 | 90             | 3    |
| 3   | Emergency Medicine  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 4   | Biomedical technology in<br>clinical settings and<br>simulators | 5   | 40 | 0  | 45 | 45 | 90             | 3    |

| 5  | Selected Topics in       | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|----|--------------------------|---|----|---|----|----|----|---|
|    | Gynaecology and          |   |    |   |    |    |    |   |
|    | Obstetrics               |   |    |   |    |    |    |   |
| 6  | Selected Topics and      | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Innovation in Public     |   |    |   |    |    |    |   |
|    | Health                   |   |    |   |    |    |    |   |
| 7  | Selected Topics and      | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Innovation in Neurology  |   |    |   |    |    |    |   |
| 8  | Selected Topics in       | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Dermatovenerology        |   |    |   |    |    |    |   |
| 9  | Selected Topics and      | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Innovation in Psychiatry |   |    |   |    |    |    |   |
| 10 | Selected Topics and      | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Innovation in Geriatrics |   |    |   |    |    |    |   |
| 11 | Surgical Views of        | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | Medicine in Emergency    |   |    |   |    |    |    |   |
|    | Conditions               |   |    |   |    |    |    |   |
| 12 | Tropical Medicine        | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    |                          |   |    |   |    |    |    |   |
| 13 | Simulation of Endoscopic | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | and Ultrasound           |   |    |   |    |    |    |   |
|    | Examination in Internal  |   |    |   |    |    |    |   |
|    | Medicine                 |   |    |   |    |    |    |   |
| 14 | Basics of Palliative     | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | medicine and Palliative  |   |    |   |    |    |    |   |
|    | Care                     |   |    |   |    |    |    |   |
| 15 | Beginning and the types  | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | of pain and appropriate  |   |    |   |    |    |    |   |
|    | management of the        |   |    |   |    |    |    |   |
|    | patient with pain        |   |    |   |    |    |    |   |
| 16 | Communication and        | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|    | relationship building    |   |    |   |    |    |    |   |
|    | metween physician and    |   |    |   |    |    |    |   |
|    | patient                  |   |    |   |    |    |    |   |

Individual selective subjects will be carried out only if at least 10 students will apply for them.

# 6<sup>th</sup> year, 11<sup>th</sup> semester

| No.   | Subject                             | LEC | SE  | СР | СН  | PRACTI-<br>CAL<br>WORK | IW  | HOURS<br>total | ECTS |
|-------|-------------------------------------|-----|-----|----|-----|------------------------|-----|----------------|------|
| 56.   | Oncology and<br>Radiotherapy        | 15  | 30  | 15 | 60  | -                      | 90  | 150            | 5    |
| 57.   | Introduction to Research<br>Work    | 15  | 45  | 15 | 75  | -                      | 45  | 120            | 4    |
| 58.   | Selective subject 11                | 5   | 40  | 0  | 45  | -                      | 45  | 90             | 3    |
| 59.   | Selective subject 12                | 5   | 40  | 0  | 45  | -                      | 45  | 90             | 3    |
| 60.   | Family Medicine II                  | 0   | 30  | 0  | 30  | 120                    | 90  | 240            | 8    |
| 61.   | Paediatrics – working with patients |     |     |    |     | 150                    | 60  | 210            | 7    |
| total | •                                   | 40  | 185 | 30 | 255 | 270                    | 375 | 900            | 30   |

# 6<sup>th</sup> year, 12<sup>th</sup> semester - practice

| No.   | Subject                                       | LEC | SE | СР | PRACTI-<br>CAL<br>WORK | IW  | HOURS<br>total | ECTS |
|-------|---|-----|----|----|------------------------|-----|----------------|------|
| 62.   | Internal Medicine – working<br>with patients* |     |    |    | 360*                   | 180 | 540            | 18   |
| 63.   | Surgery – working with<br>patients            |     |    |    | 240                    | 120 | 360            | 12   |
| total |   |     |    |    | 600                    | 300 | 900            | 30   |

\*one week at the Infections Ward

# Selective subjects 6<sup>th</sup> year

| No. | Selective subject  | LEC | SE | СР | СН | IW | HOURS<br>total | ECTS |
|-----|--|-----|----|----|----|----|----------------|------|
| 1.  | Comunications in Medicine  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 2.  | Selected Topics and Innovation in<br>Internal Medicine                                   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 3.  | Selected Topics and Innovation in Surgery  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 4.  | Selected Topics and Innovation in Radiology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 5.  | Selected Topics and Innovation in<br>Paediatrics   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 6.  | Selected Topics and Innovation in<br>Family Medicine                                     | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 7.  | Selected Topics and Innovation in<br>Ophthalmology                                       | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 8.  | Selected Topics and Innovation in<br>Anaesthesiology                                     | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 9.  | Selected Topics and Innovation in Pathology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 10. | Selected Topics and Innovation in<br>Otorhinolaryngology and Surgery<br>of Head and Neck | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 11. | Biomedical technology in clinical settings and simulators                                | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 12. | Selected Topics and Innovation in Gynaecology and Obstetrics                             | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 13. | Selected Topics and Innovation in Public Health  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 14. | Selected Topics and Innovation in Neurology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 15. | Selected Topics in<br>Dermatovenerology  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 16. | Selected Topics and Innovation in Psychiatry   | 5   | 40 | 0  | 45 | 45 | 90             | 3    |
| 17. | Selected Topics and Innovation in  | 5   | 40 | 0  | 45 | 45 | 90             | 3    |

|     | Geriatrics                        |   |    |   |    |    |    |   |
|-----|-----------------------------------|---|----|---|----|----|----|---|
| 18. | Surgical Views of Medicine in     | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | Emergency Conditions              |   |    |   |    |    |    |   |
| 19. | Tropical Medicine                 | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
| 20. | Selected Topics and Innovation in | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | Oncology and Radiotherapy         |   |    |   |    |    |    |   |
| 21. | Biostatistics in Research Work    | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
| 22. | Simulation of Endoscopic and      | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | Ultrasound Examination in         |   |    |   |    |    |    |   |
|     | Internal Medicine                 |   |    |   |    |    |    |   |
| 23. | Basics of Palliative medicine and | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | Palliative Care                   |   |    |   |    |    |    |   |
| 24. | Beginning and the types of pain   | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | and appropriate management of     |   |    |   |    |    |    |   |
|     | the patient with pain             |   |    |   |    |    |    |   |
| 25. | Communication and relationship    | 5 | 40 | 0 | 45 | 45 | 90 | 3 |
|     | building metween physician and    |   |    |   |    |    |    |   |
|     | patient                           |   |    |   |    |    |    |   |

| Legend:                  | Slovene markers: | <u>-</u> |
|--------------------------|------------------|----------|
| LEC – lectures           |                  | PR       |
| SE – seminar             |                  | SE       |
| LP – laboratory practice |                  | LV       |
| CP – clinical practice   |                  | KV       |
| SW – seminar work        |                  | SEM VAJE |
| CH – contact hours       |                  | KU       |
| IW – individual work     |                  | ID       |

# Even if a selective subject is on the list in more than one study year, students can choose it only once in six years of studies.

To carry out PBL modules additional pedagogical conditions are required which come from didactic peculiarities of this way of learning. A tutor of this kind of study can be anyone who has completed a special course in directing PBL modules. This form of study is carried out by model from medical faculties of other universities. On the basis of this cooperation, the first training of higher education teachers was already carried out, and the other necessary training was carried out before the enrolment of the first generation of students.

# The portion of practical training in the program, the means of carrying it out, credit representation

Practical work altogether comprises 870 hours. It is carried out by students in the 6<sup>th</sup> year and it is represented with 45 ECTS. This practical training – practical course is carried out by students in an outpatient's department (family medicine – total 120 hours), in the hospital at paediatrics (150 hours), at surgery (240 hours) and at the internal ward (360 hours). So the portion of practical training in the 6<sup>th</sup> year amounts to 75% of ECTS points.

The students get the list of skills they need to acquire before the beginning of practical training, together with the instructions about what they will have to do, and what they need to master before they start the practical course. Each activity will be carried out under the guidance of a mentor – in outpatients'

department probably one mentor will be assigned to one student, and in the hospital one mentor will be assigned to a small group of students.

# The vertical and horizontal connection of the subjects

The characteristic of the uniform master's degree study program General Medicine is that the subjects are tightly intertwined in the individual study years (horizontal) and between all study years (vertical). The PBL modules have the role of connecting which on the basis of centred problems in a spiral form cover all areas of medicine, from knowing the basics of theory and practice, training in a clinical environment, and of gradual achievement of independence which leads to an independent professional path of a doctor.

In horizontal sense the subjects in individual study years are connected in contents. Individual subjects in a study year are integrated: e.g. histology in anatomy, pathophysiology is integrated in more than one subject – physiology, pathology, pharmacology with toxicology, PBL modules, internal medicine, surgery, etc. Simultaneously with classic lectures, seminars and practice work by PBL is going on where the material from the lectures and practice is additionally discussed on individual examples in smaller groups, and a trained teacher (a tutor) directs the discussion. Individual problems are dealt with in different study years and together with other subjects traverse from preclinical to clinical.

Vertical connection is seen in the upgrade after each year of studies; in the clinical part of studies the preclinical knowledge is upgraded and extended (e.g. pathology I – pathology II, biochemistry – clinical biochemistry, pharmacology with toxicology – clinical pharmacology, microbiology – infectious diseases, etc.).

# The requirements for enrolment and standards for selection at enrolment limitation

For the uniform master's degree study program General Medicine can apply:

- a) who passes the Matura examination,
- b) who has before June 1, 1995 finished any 4-year secondary school program.

All candidates must have a level of knowledge of the Slovenian language at the C2 level according to the Common European Framework of Reference for Languages (CEFR). As a fulfilment of this admission requirement a completed course of the subject of the Slovenian language at the baccalaureate or in the last year of a secondary school is taken into account when the lectures have been given, a certificate of a passed exam in the Slovenian language at the level C2 is taken into account or any other equivalent document as well.

If the resolution about the enrolment limitation will be accepted,

the candidates from item a) will be chosen according to:

| • | overall success at Matura   | 35 % of points, |
|---|---|-----------------|
| ٠ | overall success in the $3^{rd}$ and $4^{th}$ year of secondary school | 20 % of points, |
| ٠ | success at individual subjects from Matura:                           |                 |
|   | mathematics, foreign language and one subject of                      |                 |
|   | natural science (biology, physics or chemistry)                       | 45 % of points; |
|   |   |                 |

the candidates from item b) will be chosen according to:

| ٠ | overall success at final exams  | 35 % of points, |
|---|---|-----------------|
| • | overall success in the $3^{rd}$ and $4^{th}$ year of secondary school | 20 % of points, |
| • | success in mathematics or foreign language                            |                 |
|   | at final exams, and success in one of the subjects                    |                 |
|   | from natural science (biology, physics or chemistry)                  |                 |
|   | at final exams or in the last year of secondary school                |                 |
|   | when the subject was carried out                                      | 45 % of points; |
|   |   |                 |

The number of enrolment posts for full time studies: 86

# The provisions about the use / concretization of standards for acknowledging knowledge and competences acquired before enrolment into the program

In the process of education, students can get recognition for acquired knowledge, training or capabilities that were acquired before enrolment:

- In various forms of formal education that students attest with certificates and other documents from which the extent and the contents of students' effort is clear. The extent and contents are represented by the ECTS system up to 2 ECTS points which can substitute comparable obligations in the foreseen uniform master's degree study program General Medicine.
- From the title of informal education or completed expert work on the basis of submitted documents (project, expert's detailed report, published work, inventions, patents and other authorial work). The extent and contents of the work are represented by ECTS system up to 1 ECTS point, which can substitute obligations in selective subjects of the study program. At recognition, the basic standard is comparability of elsewhere acquired knowledge with learning units, skills and training in the uniform master's degree study program General Medicine.

The application for the recognition of acquired knowledge and skills in various forms of formal and informal education acquired before the enrolment in the program, the Faculty will deal with in accordance with the rules.

Candidates submit the application for recognition of knowledge and skills to the faculty Students Affairs Committee. Knowledge / skills can be recognized entirely, only partly or not at all. In the case they are partly recognized, the student will take a part exam from the topics which will be determined by the subject holder.

# The methods of grading

The methods and forms of grading and examining the knowledge of students for each individual subject are prescribed in the subject curriculum. By rule, every subject is completed with an exam, the teachers are encouraging students to use various forms of active study and already during the study process examine their knowledge in different forms, e.g. tests, assignments and projects (and their argumentation) with including students in research projects etc. The acquired grades keep a record of students' knowledge according to the study program. At grading, the teachers take in account the rules of grading which are determined by the University of Maribor. The examining and grading students' knowledge will be done in these forms:

- written exam
- oral exam
- practical exam
- short examination
- seminar
- active participation in practice
- assessment of practice
- short examination or part written exams
- electronic tests
- report about practical training.

# The requirements for advancement in the program

According to article 85 of the Statute of UM (Off. G. No. 45/2015) the students enrol in higher study years if they have completed all obligations determined with the study program and the Statute of UM. The Student Affairs Committee can on student request by way of exception approve enrolment to a higher level to students who have not completed all obligations if they have completed more than a half of their obligations, if they could not complete the obligations for justifiable reasons and can be expected they will complete them in the time that the committee will grant them.

To advance to a higher level the students must complete obligations in these subjects:

- for enrolment in the 2<sup>nd</sup> study year: all completed study obligations in these subjects from the 1<sup>st</sup> year: Anatomy with Histology, Biophysics, Chemistry, Cell Biology, Biochemistry, Introduction to Medicine I, PBL I Anatomy and Preclinical Basics I, PBL II Anatomy and Preclinical Basics II, selective subject 1, selective subject 2 = total 55 ECTS.
- for enrolment in the 3<sup>rd</sup> study year: all completed study obligations in these subjects from the 2<sup>nd</sup> year: Physiology, Microbiology, Introduction to Medicine II, Health Psychology, PBL III Basics of Physiology Pathophysiology I and PBL IV- Basics of Physiology Pathophysiology II, selective subject 3 and selective subject 4 = total 47 ECTS, and a subject from the 1<sup>st</sup> year Molecular Biology with Genetics.
- for enrolment in the 4<sup>th</sup> study year: all completed study obligations in these subject from the 3<sup>rd</sup> year: Internal Medicine with Propedeutics, Surgery, Radiology, Clinical Biochemistry, PBL V Clinic 1, PBL VI Clinic 2, Orthopeadics (from study year 2016/2017 forward)= total 51 ECTS, and study obligations from the 2<sup>nd</sup> year: Pharmacology with Toxicology, Pathology I (General Pathology).
- for enrolment in the 5<sup>th</sup> year: all completed study obligations in these subjects from the 4<sup>th</sup> year: Paediatrics, Clinical psychology and communication skills in medicine, Family Medicine I, Physical and Rehabilitation Medicine, Medical Ethics and Law, Pathology II (Systematic Pathology), Ophthalmology, Otorhinolaryngology and PBL VII – Clinic 3 = total 51 ECTS. From the 3<sup>rd</sup> year in subjects: Anaesthesiology, selective subject 5 and selective subject 6.
- for enrolment in the 6<sup>th</sup> year: all completed study obligations in these subject form the 5<sup>th</sup> year: Dermatovenerology, Psychiatry, Neurology, Neurosurgery, Clinical Pharmacology, Infectious Diseases, Public Health, Gynaecology and Obstetrics, PBL VIII – Clinic 4, selective subject 9 and

selective subject 10 = total 55 ECTS, and study obligations from the  $4^{th}$  year: Forensic Medicine, selective subject 7 and selective subject 8.

### Taking a study year again or prolongation of student status

Students who did not complete all obligations to advance to a higher level in the same study program, can take a study year again once.

Taking a study year again is also considered the change of study course because of not completing study obligations in the previous program or course (article 120 of the Statute).

The ability to take a study year again is approved by the Student Affairs Committee of FM UM to students who have:

- regularly participated in all foreseen forms of educational work which are determined in the study program
- completed at least a half of obligations foreseen in the study program.

Students who have completed less than a half of study obligations can only be allowed by the committee to take a study year again if there are justifiable reasons which enable the student the prolonging of student status by this Statute.

At the Senate of FM UM an appeal can be made against the decision of the Student Affairs Committee. The ruling of the Senate is final (article 121 of the Statute UM).

### The prolonging of student status:

Students who are in two or more study programs at the same time, students who have the status of a sportsman, students who are very active in cultural and humanitarian area, and students who have justifiable reasons (motherhood, illness lasting for at least three months during a semester or a month during the exam period, military service, exceptional social or family circumstances, studying abroad, active work in university organs) and did not graduate within twelve months after the last semester or they did not enroll to a higher level, the status can be prolonged, but not for more than one year. Female students who give birth to a child in the course of their studies have the right to prolong their student status for one year for each live-born child. The Student Affairs Committee of the UM Senate makes decisions about prolonging of student status.

In accordance with the Law on Higher Education it is possible to repeat a study year or change the study program one time in the course of studies.

#### The counselling and directing during studies:

At the Faculty of Medicine UM we will commence activities to introduce the system of tutoring and mentoring. We will put much thought into the system of student tutors and student mentors for the purpose of guiding, counselling and directing of students. It is planned that each student will be assigned a tutor at enrolment in the study program – a student from a higher level who will advise and help the new student. Student tutors will be under the watchful eye of teachers mentors who will help at more serious problems and will guide and direct students through the whole study process.

# The provisions about transition between programs

Transition means that a student quits the education process in the study program (s)he has enrolled in and continues his/her education in a different study program in which all or a part of obligations which a student completed in the first study program are recognized as completed obligations in the second study program.

The transition from the previous paragraph is not a change of study program or the course because of not completing of obligations in the previous study program or course.

Transition is possible only between study programs of the same level and the same kind.

With transition between study programs of the same level the following standards are taken in account:

- fulfilment of enrolment conditions for the new study program,
- number of study enrolment posts,
- study years or semesters in the previous study program in which students have completed all study obligations and can be recognized in whole
- the minimal number of study years or semesters which students must complete in order to graduate in the new program,
- exams and other study obligations from the previous program that can be recognized, and differential exams and other study obligations that students must complete in addition in order to graduate in the new program.

Transition between programs is possible only within the programs in the area of medicine according to the Law on Higher Education and the Standards for Transition between Study Programs and other regulations. Students enrolled before the introduction of new study programs who have the right to take a study year again and cannot because of gradual introduction of new study programs, they transit to the new program as the other students enrolling in the new programs.

Transition from university study programs (before the acceptance of LHE in 2004) and from (Bologna) university study programs of the  $1^{st}$  level:

The students of university study programs in medicine who fulfil all the requirements for enrolment in the new study program General Medicine; the missing obligations are determined which they must complete in order to graduate in the new program.

Students must submit an application in accordance with the official notice for enrolment and send the application for the transition to the Student Affairs Committee of the Faculty of Medicine. It is necessary to enclose documentation about the completed obligations at the university from which they come. The committee will study the proposition and give its solution in accordance with the legislation and the UM Statute. Exams and other obligations which are comparable with the program at the Faculty of Medicine will as a rule be recognized or the missing obligations and the deadline in which the candidates must complete them in order to graduate in the new program will be determined.

Transition from higher education expert study programs (before acceptance of LHE in 2004) and from (Bologna) higher education expert study programs of 1<sup>st</sup> level. Transition is not possible.

Transition from higher education study programs, accepted before 1994. Transition is not possible. Transition from higher education expert programs by Law on Higher Expert Education (2004). Transition is not possible.

# The information about the ways and forms of carrying out studies

| Ways and forms of carrying out | x full time | part time | distance study |  |
|--------------------------------|-------------|-----------|----------------|--|
| the study program (tick):      |             |           |                |  |

The number of enrolment posts for full time studies: 86

Full time studies will be carried out at the seat of the faculty in Maribor, Taborska 8, in accordance with the study calendar which is determined by the University of Maribor.

# The requirements for completing studies

The requirement for completing studies is successfully completed all prescribed obligations in the study program, including selective subjects and practical work in the 6<sup>th</sup> study year – students gather minimally 360 ECTS.

# The acquired expert or scientific title

Candidates who will successfully complete the study program will acquire the expert title according to the Law on Expert and Scientific Titles Off. G. RS, No. 61/2006, and this is:

• doctor of medicine (MD)