Name of the course	**Transfusiology and Transplantology**			***Code***	MSE503
Type of study program:	Integrated university study program, Medicine			***Year of study:***	5
Credits (ECTS):	0.5	***Semester:***	IX	***Number of hours per semester (l+s+e):***	20 (7+8+5)
Status of the course:	obligatory	***Preconditions:***	Passed all exams of the 4th year	***Comparative conditions:***	/
Access to course:	Fifth year students			***Hours of instructions:***	According to schedule

Course teacher:	Jadranka Knežević, MD, PhD
Consultations:	As agreed with students
E-mail address and phone number:	jadrankakn@gmail.com 00387 63 997 991
Associate teachers	Ivana Talić Drlje, MD
Consultations:	As agreed with students
E-mail address and phone number:	ivanatalic@yahoo.com 00387 63 413 558 anitamaric3@gmail.com

The aims of the course:	Principal aim of this course is to introduce medical students with basic transfusion and transplantation science, especially in clinical practice. Students will acquire knowledge of importance and application of transfusion and transplantology diagnostic methods and interpretation of acquired results. Students will learn about indications for transfusion of different blood products and how to approach potential adverse reactions to transfusion.
Learning outcomes (general and specific competences):	Basic knowledge of: -blood donation -immunohematology (ABO blood group system, Rhesus blood group system, other blood group systems, indirect antiglobulin test, direct antiglobulin test, cross reaction) -blood borne diseases -blood products preparation and their uses -efficiency monitoring of transfusion -transplantation (solid organs and stem cells, HLA typing)
Course content (Syllabus):	During the course, knowledge of the students will be examined through seminars and exercises. Lectures: 1. (L1) Introduction to the subject and historical review; General principles of blood donation. 2. (L2) Production of blood products; Quality system in transfusion medicine. 3. (L3) Erythrocyte blood groups; Other blood groups; HLA system; importance in Transplantology. 4. (L4) Transfusion treatment 5. (L5) Transfusion reactions; Systematic supervision of transfusion and posttransplantation treatment; 6. (L6) Quality control in laboratory diagnostics of transplanted patients 7. (L7) Laboratory diagnosis of hemostasis disorders Seminars: 1. (S1) Blood-borne diseases 2. (S2) Bone marrow and stem cell donor registries 3. (S3) Histocompatibility and immunogenetics 4. (S4) Hemolytic disease of the newborn 5. (S5) Hemovigilance Exercises 1. E1) Examination of blood donors

	2. (E2) Determination of blood groups 3. (E3) Production of blood products 4. (E4) Issuance of blood products 5. (E5) Prenatal testing (KG and ICT) 6. (E6) HLA typing, molecular diagnostics 7. (E7) Dispensing blood products and monitoring the occurrence of harmful reagents and events 8. (E8) Recruitment of bone marrow stem cell donor			
Format of instruction (mark in bold)	**Lectures**	**Exercises**	**Seminars**	Independent assignments
	Consultations	Work with mentor	Field work	Other
Student responsibilities	Teaching is conducted in the form of lectures during which the teacher explains the topic and encourages active and critical thinking of students and participation in the discussion. Teachers and students discuss the specifics and problems within each topic covered. Attendance records are kept for each student. At the end of the class there is a written final exam. Students will be evaluated based on: ● Active participation in seminars and exercises. ● Preparation of teaching units for seminars ● Reading teaching texts and developing one's own critical thinking about material and the expression of that opinion. ● Work in small groups			
Screening student work (mark in bold)	**Class attendance**	**Class participations**	Seminar essay	**Practical training**
	Oral exam	**Written exam**	**Continuous assessment**	Essay

Detailed evaluation within a *European system of points*

STUDENTS RESPONSIBILITIES	**HOURS**	**PROPORTIONS OF ECTS CREDITS**	**PROPORTIONS OF GRADE**
Class attendance with practical training and exam preparation	20	0.5	0 %
Written exam	5		100 %

The final exam is a written (oral exam can be taken for a higher grade).
The student succeeds on the basis of the solved questions on the test, of which 55% of the correct answers to the questions in the test must be satisfied in order to pass
Grading:
A= 91-100% 5 (excellent)
B = 79 to 90% 4 (very good)
C = 67 to 78% 3 (good)
D = 55 to 66% 2 (sufficient)
F = 0 to 54% 1 (insufficient)

Required literature:	Harmening DM. Modern Blood Banking & Transfusion Practice. F.A.Davis Company 2018, VII edition (selected chapters)
Optional literature:	Material/notes from classes.