Nameofthe course	**Transfusiology and Transplantology**			***Code***	MSE503
Typeofstudyprogram:	Integrated university study program, Medicine			***Yearof study:***	5
Credits(ECTS):	0.5	***Semester:***	IX	***Numberof hours per semester (l+s+e):***	20 (7+8+5)
Statusofthe course:	obligatory	***Preconditions:***	According to the rulebook on studying	***Comparative conditions:***	/
Accessto course:	Fifth year students			***Hours of instructions:***	According to schedule

***Courseteacher*:**	Assistant professor Ivana Talić Drlje MD PhD
Consultations:	As agreed with students
E-mail address and phone number:	ivana.talic-drlje@mef.sum.ba 00387 63 413 558
Associate teachers	Marko Lilić, PhD Senior Teaching Assistant Anita Primorac Marić, Senior Teaching Assistant Andrijana Buntić Galić, Senior Teaching Assistant Danijel Nedić, Senior Teaching Assistant
Consultations:	As agreed with students
E-mail address and phone number:	

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 (generalandspecific competences):	Basicknowledge 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)
Coursecontent (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 (blood group and ICT) 6. (E6) HLA typing, molecular diagnostics 7. (E7) Dispensing blood products and monitoring the occurrence of harmful reactions and events 8. (E8) Recruitment of bone marrow stem cell donor

Format of instruction (mark in bold)	**Lectures**	**Exercises**	**Seminars**	Independent assignments
	Consultations	Workwith mentor	Fieldwork	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**	**PROPORTIONSOF ECTS CREDITS**	**PROPORTIONS OF GRADE**
Class attendance with practical training and exam preparation	20	0.5	0%
Written exam			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:	selected chapters: Harmening DM. Modern Blood Banking &Transfusion Practice. F.A.Davis Eisenbrey, AB. HLA from table to bed. London, United Kingdom: Academic Press, an imprint of Elsevier; 2021. Boegel S. HLA Typing: Methods and Protocols. New York: Springer Link; 2024. Katalinić N, Balen S. The HLA System in Clinical Practice. Osijek: Josip Juraj Strossmayer University of Osijek; 2021.

Optionalliterature:	Material/notes from classes. Internal medicine, Božidar Vrhovac Branimir Jakšić, Željko Rainer, Boris Vucelić