

1. COURSE DESCRIPTION – GENERAL INFORMATION			
1.1. Course teacher	Professor Renata Zadro, PhD	1.6. Year of study	4 th
1.2. Name of the course	Coagulation	1.7. Credit value (ECTS)	4
1.3. Associate teachers	-	1.8. Type of instruction (number of hours L+E+S+e-learning)	15+15+15
1.4. Study programme (undergraduate, graduate, integrated)	Integrated study of Medical biochemistry	1.9. Expected enrolment in the course	25
1.5. Status of the course	Compulsory	1.10. Level of use of e-learning (1, 2, 3 level), percentage of instruction in the course on line (20% maximum)	2 nd
2. COURSE DESCRIPTION			
2.1. Course objectives	Understand basic biochemistry and physiology of haemostasis, pathophysiology of haemostasis and thrombosis disorders, get acquainted with treatment methods and diagnose haemostatic disorders by laboratory methods.		
2.2. Enrolment requirements and required entry competences for the course	Audited course in Haematology 2 and exam in General Clinical Biochemistry passed.		
2.3. Learning outcomes at the level of the study programme to which the course contributes	Implementation of basic knowledge in biochemistry and physiology of haemostasis when defining, analysing and proposing methods for detection and follow-up of haemostatic and thrombotic disorders and efficacy of therapy.		
2.4. Expected learning outcomes at the level of the course (4-10 learning outcomes)	<p>Student will be able to:</p> <ol style="list-style-type: none"> 1. Describe the haemostasis model; 2. Explain the physiology of haemostasis; 3. Identify major coagulation and fibrinolytic factors; 4. Explain hereditary and acquired haemostatic and thrombotic disorders; 5. Enumerate types of therapies for particular coagulation disorders; 6. Explain the principle of anticoagulation therapy; 7. Perform laboratory analyses for the diagnostics of coagulation disorders. 		
2.5. Course content broken down in detail by weekly class schedule (syllabus)	<p>LECTURES:</p> <ul style="list-style-type: none"> • Coagulation mechanism. • Primary haemostasis – the role of platelets and blood vessels in haemostasis. • Secondary haemostasis – biochemistry of coagulation factors. • Structure and function of factor VIII and von Willebrand factor. 		

	<ul style="list-style-type: none"> • Fibrinolysis. • Classification and clinical manifestation of haemostatic and thrombotic disorders. • Inherited coagulation disorders – haemophilia A and B. • Inherited coagulation disorders – von Willebrand’s disease. • Acquired coagulation disorders – disseminated intravascular coagulation. • Acquired coagulation disorders – inhibitors and lupus anticoagulant. • Inherited thrombophilias. • Acquired thrombophilias. • Oral anticoagulation therapy. • Anticoagulation heparin therapy. • Antiaggregation therapy. <p>SEMINARS:</p> <ul style="list-style-type: none"> • Laboratory diagnosis of coagulation disorders. • Pre-analytical variables. • Methodology. • Prothrombin time. • Activated partial thromboplastin time. • Fibrinogen. • Thrombin time. • Measurement of activities of coagulation factor. • Measurement of coagulation inhibitors activities. • Thromboplastins. • Measurement of antigen concentration of coagulation factors. • Therapies for haemophilias. • Examination of platelet functions. • Anticoagulants. • Natural inhibitors. <p>EXERCISES:</p> <ul style="list-style-type: none"> • Prothrombin time. Activated partial thromboplastin time. • Fibrinogen activity. Coagulation factor activity. • Screening for coagulation factor inhibitors: global test and coagulation factor residual activity. Antithrombin activity. Fibrin degradation products. • Platelet function – platelet aggregation and primary haemostasis capacity. 		
2.6. Type of instruction	<p>lectures</p> <p>seminars and workshops</p> <p>exercises</p> <p>online in entirety</p> <p>mixed e-learning</p> <p>field work</p>	<p>independent study</p> <p>multimedia and the internet</p> <p>laboratory</p> <p>work with the mentor</p> <p>(other)</p>	<p>2.7. Comments:</p>

2.8. Student responsibilities	Regular attendance at lectures, seminars and exercises mandatory					
2.9. Screening of student's work (specify the proportion of ECTS credits for each activity so that the total number of CTS credits is equal to the credit value of the course)	Class attendance	0.5	Research		Practical training	
	Experimental work	0.5	Report			
	Essay		Seminar essay	0.5	(Other--describe)	
	Tests		Oral exam		(Other—describe)	
	Written exam	2.5	Project		(Other—describe)	
2.10. Grading and evaluation of student work over the course of instruction and at a final exam	Checking of regular attendance, activities at lectures, seminars, written exam.					
2.11. Required literature (available at the library and via other media)	Title					
	Labar B, Hauptmann E. et al. Hematologija. Zagreb: Školska knjiga 2007.					
	Dacie and Lewis. Practical Hematology, 11. Ed., Churchill Livingstone Elsevier, 2012.					
2.12. Optional literature	Koagulacija (Zadro R, ed.), Medicinska naklada 2010. Priručnik za trajno usavršavanje Hrvatske komore medicinskih biokemičara Trombociti (Zadro R, ed.), Medicinska naklada 2008. Priručnik za trajno usavršavanje Hrvatske komore medicinskih biokemičara					
2.13. Methods of monitoring quality that ensure acquisition of exit competences	Learning outcomes 1-6 re checked by written exams and during seminars, LO 7 is tested during laboratory practice.					