

Information sheet for the course
Laboratory examinations in Hematology and Transfusiology

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Health Care</i>	
Course unit code: <i>VMHT/d</i>	Course unit title: <i>Laboratory examinations in Hematology and Transfusiology</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lecture: 2 hours weekly/26 hours per semester of study; full-time</i> <i>Seminar: 2 hours weekly/26 hours per semester of study; full-time</i>	
Number of credits: <i>5</i>	
Recommended semester: <i>5th semester in the 3rd year (full-time)</i>	
Degree of study: <i>I (bachelor)</i>	
Course prerequisites: <i>none</i>	
Assessment methods: <i>Student achieves during the semester 50 points</i> - <i>Written or oral examination (50 points)</i> <i>Needed points to evaluation: A- at least 45 points, B at least 40 points, C - at least 35 points, D at least 30 points, E - at least 25 points.</i>	
Learning outcomes of the course unit: <i>Student obtains, by study of hematology, the basic knowledge in the field of clinical and laboratory hematology and hemostasis. Student obtains the overviews and basic knowledge about the choosen hematologic diseases and their laboratory findings. Student will learn and use laboratory examinations in diagnostic and therapeutic evaluations of these diseases and by judgment of success ratio of their treatment.</i>	
Course contents:	
Lectures	
<ol style="list-style-type: none"> 1. <i>Physiology of blood cells creation, regulation and time of living of red cells.</i> 2. <i>Development of red cells, morphology, composition and disruption of hemoglobine.</i> 3. <i>Pathology of red cells- anaemias, laboratory findings.</i> 4. <i>Polyglobulia and polycythemia – clinical and laboratory findings</i> 5. <i>Evolutional line of white cells.</i> 6. <i>Diseases of white cells- leucocytosis and leucocytopenia.</i> 7. <i>Acute and chronic laeucemias- laboratory findings.</i> 8. <i>Myeloproliferative naoplasias.</i> 9. <i>Lymphoproliferative diseases.</i> 10. <i>Blood platelets- creation, composition, function- primary hemostatic closing screw.</i> 11. <i>Pathology of blood platelets.</i> 12. <i>Hemostatic cascade- factors of cogulation.</i> 13. <i>Pathology of hemosttis: haemofilias and thrombosis.</i> 	
Practical excercises:	
<ol style="list-style-type: none"> 1. <i>Work system in laboratory- blood sampling, transport, admission, processing, expedition of results, communication with departments, electronic transport of data, order forms, hygiene of enviroment, injuries.</i> 2. <i>Preanalytic, analytic, postanalytic phase of examination in hematologic laboratory. Quality control system- QCS.</i> 3. <i>Assessment of velocity of FW, measurement of hemoglobin amount.</i> 4. <i>Examination of haematocrit.</i> 	

5. *Cells counting- red cells counting.*
6. *White cells counting.*
7. *Blood platelets counting.*
8. *White eosinofil cells counting.*
9. *Making, dyeing and diiferentation of blood smear.*
10. *Reticulocytes counting.*
11. *Assesment of bleeding and coagulation time of blood.*
12. *APTT - control of kumarin treatment.*
13. *APTT - control of heparin treatment.*

Recommended of required reading:

1. *PECKA, M. a kol.: 2010. Praktická hematologie. Laboratorní metody. Nakladatelství Infinitiart, s.r.o., Český Tešín, 2010. ISBN 978-80-903871-9-5.*
2. *KUBISZ, P. a kol.: 2006. Hematológia a transfuziológia, učebnica. Grada Slovakia, spol. s r.o. 2006. ISBN 80- 8090-000-0.*
3. *PENKA, M., TESAŘOVÁ E. a kol.: 2011. Hematologie a transfuzní lékařství I. Grada Publishing, a.s. 2011. ISBN 978-80-247-3459-0.*
4. *FÁBRYOVÁ, V. a kol.: 2012. Imunohematológia a transfúzna medicína pre prax. Grada a. Slovakia spol. s r.o. 2012. ISBN 978-80-8090-002-1.*

Language: *Slovak*

Remarks: *none*

Evaluation history: *Number of evaluated students 103*

A	B	C	D	E	FX
36,89%	27,18%	15,53%	14,56%	4,85%	0,97%

Lectures: *doc. MUDr. Ján Bielik, CSc.*

Last modification: *22.4.2014*

Supervisor: *doc. MUDr. Jana Slobodníková, CSc.*