INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Clinical and Laboratorial Hematology II			Field of study	Biomedical Laboratory Sciences		
Bachelor in	Biomedical Laboratory Sciences			School	School of Health		
Academic Year	2021/2022	Year of study	3	Level	1-3	ECTS credits	5.0
Type	Semestral	Semester	2	Code	9995-550-3203-00-21		

Workload (hours)	135	Contact hours	T	TP	PL	TC	S	E	OT	O
			-	22,5	30	-	-	-	7,5	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Angela Maria Pais Rodrigues, Jose Joaquim Costa

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Understand some basic concepts and procedures in the area of haematology.
2. Participate in routine laboratory work in a laboratory haematology.
3. Perform laboratory work plans under the haematology.
4. Participate and interpret laboratory experiments in this area.
5. Participate in research projects in this area.
6. Analyze and interpret a critical scientific work.

Prerequisites

Before the course unit the learner is expected to be able to:
N/A

Course contents

The content of the course includes the following topics: White Blood Cells and their benign disorders; Etiology and genetics of haematological malignancies; Acute leukaemias; Chronic myeloid and lymphoid leukaemias; Hodgkin´s and Non-Hodgkin´s lymphoma; Multiple myeloma; Haemostasis; Hemorrhagic diseases; Coagulation disorders; Thrombosis and antithrombotic therapy.

Course contents (extended version)

1. The White Blood Cells and their benign disorders.
2. The aetiology and genetics of haematological malignancies.
3. Acute leukaemias.
4. Chronic myeloid leukaemia and other myeloproliferative disorders.
5. Myelodysplasia.
6. The chronic lymphoid leukaemias.
7. Hodgkin´s lymphoma.
8. Non-Hodgkin´s lymphoma.
9. Multiple myeloma and related disorders.
10. Haemostasis: platelets, blood coagulation and fibrinolysis.
11. Hemorrhagic diseases caused by platelets.
12. Coagulation disorders: von Willbrand disease, haemophilia and other coagulation factor deficiencies.
13. Thrombosis and antithrombotic therapy.
14. Practices in haetomology.
    - Blood samples.
    - Differential leucocyte count.
    - Preview morphological changes of leukocytes.
    - Evaluation of the different types of leukaemia taught in theoretical based histogram.
    - Association of the histogram obtained by Automation with the preview of peripheral blood smears.
    - Analysis and interpretation of myelograms.
    - Partial activated the tromboplastin time.
    - Prothrombin time.

Recommended reading

1. Dacie, J. , Lewis, S. , Bain, B. , Bates, I. , & Failace, R. (2006). Hematologia prática de Dacie e Lewis. Porto Alegre : Artmed.
2. Oliveira, R. (2007). Hemograma : como fazer e interpretar. São Paulo: Livraria Médica Paulista Editora.
3. Nathan, D. , Orking, S. , & Ginsburg, D. (2003). Nathan and Oski´s haematology of infancy and childhood. Estados Unidos da América : Saunders.
4. Hoffbrand, A. , Pettit, J. , Moss, P. , & Carlquist, I. (2004). Fundamentos em hematologia. Porto Alegre : Artmed
5. Pádua, M. (2011). Patologia clínica para técnicos - hematologia-citologia. Loures : Lusociência.

Teaching and learning methods

Theoretical-practical classes - 30 hours, expository methodology, using the media. Stimulating the participation of students using concrete and real clinical cases, resorting to active teaching-learning methodologies. Practical classes - 30 hours, carrying out practical laboratory work developing specific protocols, analysis and discussion of scientific papers, also using ATLM.

Assessment methods

1. Continuos assessment - (Regular, Student Worker) (Final)
    - Final Written Exam - 60% (Evaluation of the theoretical component.)
    - Reports and Guides - 15%
    - Laboratory Work - 25% (Practical examination)
2. Final assessment - (Regular, Student Worker) (Supplementary, Special)
    - Final Written Exam - 100% (Final assessment includes the theoretical component (60%) and practical (40%).)
3. Final evaluation - (Student Worker) (Final)
    - Final Written Exam - 100% (Final assessment includes the theoretical component (60%) and practical (40%).)

Language of instruction

Portuguese

Electronic validation

Angela Maria Pais Rodrigues	Josiana Adelaide Vaz	Juliana Almeida de Souza	Adília Maria Pires da Silva Fernandes
07-03-2022	08-03-2022	05-04-2022	06-04-2022