MODULE SPECIFICATION

Part 1: Information			
Module Title	Haematology		
Module Code	USSKBK-30-3	Level	3
For implementation from	Sept 2018		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	HAS	Field	Applied Sciences
Department	Applied Sciences		
Contributes towards	BSc (Hons) Biomedical Science MSci Biomedical Science BSc (Hons) Biomedical Science with Foundation year MSci Biomedical Science with Foundation year		
Module type:	Standard		
Pre-requisites	Studies in the Biology of Disease (USSKAT-30-2)		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

This module is a core specialist module within the BSc Biomedical Science programme and so aims to deliver specialist knowledge through taught lectures, together with inductive tutorials, seminars and practical classes to enable application and problem-solving utilising this knowledge. Student learning will be further supported through the University's E-Learning Environment, Blackboard, with provision of materials and activities to guide independent study.

Students are expected to spend 72 hours on scheduled learning and a further 228 hours on independent learning.

Independent learning will take the following forms with an approximate indication of time required for each:

- Essential reading to support acquisition of knowledge and completion of problem-solving tasks, case studies and online material related to lectures and tutorials – 120 hours
- Preparation and completion of assignment 1 – 48 hours
- Exam revision and preparation – 60 hours

Scheduled learning includes lectures, tutorials and practical classes.

Independent learning includes hours engaged with essential reading, case study preparation, online activities, assignment preparation and completion.

Key areas of the syllabus are:

The anaemias

Classification systems. Megaloblastic anaemias. Iron deficiency and related anaemias. Normal erythrocyte structure and function. Red cell survival disorders. Haemoglobinopathies and the thalassaemia syndromes. Red cell enzymopathies.

Haematological malignancy

Aetiology and the multi-hit hypothesis. Classification. Principles of investigation and diagnostic criteria. Pathophysiology. Theoretical basis of cytotoxic chemotherapy and stem cell transplantation.

Haemostasis

Structure and contribution to haemostatic function of blood vessels, platelets, coagulation proteins and fibrinolytic proteins. Functional inter-relationships between the vascular, platelet, coagulation and fibrinolytic systems. Naturally occurring inhibitors of coagulation and fibrinolysis. Haemorrhagic conditions, the hypercoagulable state, and diagnosis and therapy of these.

Blood donation

Principles of the selection, collection, separation, storage and transportation of donated blood components for transfusion. The bacteriology, virology and parasitology of diseases which can be transmitted by transfusion.

Blood groups

The major blood polymorphism's e.g. ABO, Rh, and selected other blood group systems. Blood group structure, function and relevance to transfusion.

Compatibility of blood

In vitro antibody-antigen reactions for the selection of compatible blood. Optimisation of detection techniques for *in vitro* antibody-antigen reactions.

Immunohaematology

Laboratory investigation of serological reactions to aid diagnosis of immunohaemolytic disease and immunological transfusion reactions. Strategies for the prophylaxis of immunohaemolytic disease.

Transfusion therapy

The appropriate use of blood components. Hypersensitivity responses to transfusion.

Part 3: Assessment: Strategy and Details

The Assessment Strategy has been designed to support and enhance the development of subject-based knowledge and skills, whilst ensuring that the Learning Outcomes are achieved.

The coursework consists of a case study, enabling students to research and critically analyse current literature, as well as interpreting data. Both formative and summative feedback will be given during, and following completion of the assignment, which can feed forward to help students improve performance within the exam.

The controlled assessment is one 2 hour examination comprising a mixture of question styles and is an effective method of assessing a student's ability to utilise and apply knowledge gained at this level.

Formative feedback is available throughout the module using Q+A sessions in lectures, group discussions, particularly in tutorials/seminars/practical, together with use of multiple choice questions throughout taught sessions to enable students to gain an indication of their progress anonymously. Briefing and Q+A sessions will be given before coursework deadlines, as well as tutorials covering how to approach exam questions throughout the course, together with specific exam revision and preparation sessions prior to the exam.

Identify final timetabled piece of assessment (component and element)	Component A	
% weighting between components A and B (Standard modules only)	**A:** **60**	**B**: **40**
First Sit		
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**	
1.Examination (2 hrs)	100%	
Component B **Description of each element**	**Element weighting** **(as % of component)**	
1.Case study (2000 words)	100%	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) **Description of each element**	**Element weighting** **(as % of component)**	
1.Examination (2 hrs)	100%	
Component B **Description of each element**	**Element weighting** **(as % of component)**	
1.Case Study (2000 words)	100%	

Part 4: Learning Outcomes & KIS Data

Learning Outcomes	On successful completion of this module students will be able to: • Critically discuss the processes involved in the maintenance of normal blood composition and function [A1, B1] • Outline the nature and significance of investigative haematology and its role in the diagnostic process [A1, B1] • Discuss critically the biological basis of selected haematological disease states [A1, B1] • Demonstrate a detailed knowledge and understanding of the main areas of the module – haematological malignancies, haemostatic disorders, red cell disorders and blood transfusion [A1, B1]. • Interpret parameters that characterise selected disease states [A1, B1] • Critically appraise relevant scientific literature [A1, B1]
Key Information Sets Information (KIS)	

Contact Hours

Key Information Set - Module data

Number of credits for this module				30
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
300	72	228	0	300

Total Assessment

The table below indicates as a percentage the total assessment of the module which constitutes a;

Written Exam: On unseen written exam
Coursework: One written case study

Total assessment of the module:	
Written exam assessment percentage	60%
Coursework assessment percentage	40%
	100%

Reading List

https://uwe.rl.talis.com/lists/34A38C1B-3B21-F3CC-EA36-9254E27E923F.html

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