UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title:	Research Topics 1 in Haematology and Transfusion Science
Module Code:	BIS6013-B
Academic Year:	2019-20
Credit Rating:	20
School:	School of Chemistry and Biosciences
Subject Area:	Biomedical Science
FHEQ Level:	FHEQ Level 6
Pre-requisites:	Immunology, Haematology and Transfusion Science 2018-19
Co-requisites:	

Contact Hours	
Type	**Hours**
Lectures	24
Tutorials	6
Laboratory	6
Directed Study	164

Availability	
Occurrence	**Location / Period**
BDA	University of Bradford / Semester 1 (Sep - Jan)

Module Aims

To expand knowledge and critical understanding of transfusion science methods/techniques and understand their value in relevant areas of clinical practice. To develop critical appreciation of research methodologies, data handling, and data interpretation in selected fields. To develop practical and presentation skills.

Outline Syllabus

Bood group systems - genes, antigens and antibodies. Manual and automated techniques and technologies for typing, serological crossmatching, red cell phenotyping, antibody screening and identification. Overview of blood transfusion services, range of blood

components/products manufactured and their applications. Normal ranges and predictive values for pathology tests used to inform transfusion support. Aetiology and clinical features of conditions requiring transfusion support and the legislation/guidelines relevant to blood transfusion practice. Preparation and interpretation of blood films, including blood parasites. Mechanisms and tests of haemostasis. Monitoring programmes for anticoagulation therapy. Haematinic testing and clinical applications, causes of haematological malignancy and tests for the diagnosis and management of haematological malignancy in the adult. Tests of transplant viability and rejection, stem cells and tissue banking.

Learning Outcomes

1	Analyse blood group systems and typing and discuss the importance of pre-transfusion testing, transfusion support and relevant legislation.
2	Demonstrate knowledge and understanding of the causes of haematological disorders, including blood testing, disease diagnosis and management.
3	Discuss transplant viability, tissue banking and use of stem cells. Utilise haematological knowledge to evaluate clinical scenarios and use experimental approaches to their study (HCPC standard 13)
4	Report, interpret and present scientific data, including evaluation of experimental design, using the correct scientific terminology (HCPC standards 3, 14, 10, 15).
5	Critically analyse and evaluate experimental data presented in the primary scientific literature to select and explain key complex aspects, which are at the forefront of the discipline (HCPC standards 1, 8, 13, 14).
6	Demonstrate knowledge and understanding of a range of appropriate research methodologies (HCPC standard 15).
7	Demonstrate an effective self-management of workload, time and resources to prepare and deliver concise oral reports, (HCPC standards 1, 3, 8, 10, 14).

Learning, Teaching and Assessment Strategy

The development and understanding of key concepts in this module will be delivered by a combination of lectures, workshops and practical classes. Lectures will be used to provide state of the art knowledge of the subject area. The lectures will be supported by case studies that aim to develop the students' abilities to apply their knowledge to haematological problems. Here the students will work in groups under the guidance of facilitators to solve problems and interpret data. Finally the practical class, based on one aspect of the module, will develop written communication and data presentation skills. During directed study hours, students are expected to undertake reading to consolidate and expand on the content of formal taught sessions; research and prepare for assessments; revise material from formal taught sessions; and undertake specific elements of reading as directed.
Reassessment of failed elements will be as per the initial method of assessment. Where reassessment of the laboratory practical element is required, students will be given a data set or an opportunity to complete the laboratory practical on an alternative occasion, whichever is more appropriate.

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Presentation	Individual oral presentation (LO 4-7)	15 minutes	20%
Formative	Presentation	Students have a formative presentation session which involves presenting and peer observation (LO 4-7)	15 minutes	%
Summative	Examination - closed book	Examination comprising two from a choice of five essays (LO 1-3)	2 hours	60%
Summative	Classroom test	Assessment of laboratory practical (LO 4-6)	1.5 hours	20%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html.

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.