

Module Details	
Module Title:	Clinical Diagnostics in Reproductive Science
Module Code:	BIS6018-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:	Cell and Tissue Biology 2017-18, Human Genetics and Developmental Biology 2017-18, Pathology 2018-19
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	24
Practical classes and workshops	6
Tutorials	6
Directed Study	164

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

Module Aims
The aim of this module is to expand understanding and gain experience of the application and delivery of a range of core and specialised methods and techniques of reproductive science and illustrate their value in relevant areas of clinical practice.

Outline Syllabus
The anatomy and physiology of the female and male reproductive tracts. Overview of sexual differentiation and biochemical tests of human female and male reproductive function. Causes and incidence of female, male and combined infertility. Overview of gametes and fertilisation.

Characteristics of normal and abnormal semen samples. Tests of compatibility between female and male partners and systematic investigation of the infertile couple. Situations in which assisted reproductive technologies are applicable. Methods of in-vitro fertilisation, systems used to maintain gametes and embryos, embryo viability, cryopreservation and storage. Regulation and guidelines associated with assisted reproductive technologies (eg Human Fertilisation Act) Application of specific prognostic and predictive markers in designing patient management programmes (eg oestrogen receptor, HER-2). Existing and proposed screening programmes for breast cancer, colon cancer, prostate cancer etc

Learning Outcomes

1	Demonstrate knowledge and critical understanding of the male and female reproductive systems and the contribution of the laboratory to the investigation of the infertile couple.
10	Conduct a suitable range of diagnostic, investigative or monitoring procedures and address quality control/assurance requirements.
11	Effectively manage your workload, resources and work successfully to a deadline.
12	Demonstrate personal responsibility for self-directed learning and time management. HCPC standards 1.2, 2.7, 3, 3.2, 4.2, 4.4, 4.5, 8, 10, 14, 15
2	Discuss the application of reproductive science methods and techniques and illustrate their value in relevant areas of clinical practice.
3	Analyse and evaluate the systematic investigation of pathological specimens as part of the diagnostic and monitoring processes in a range of common conditions.
4	Describe the anatomy and physiology of the female and male reproductive tracts and the biochemical tests of human female and male reproductive function.
5	Demonstrate understanding of the incidence of female, male and combined infertility and tests of compatibility between female and male partners.
6	Have an overview of gametes and fertilisation and methods of in-vitro fertilisation.
7	Understand the culture systems used to maintain gametes and embryos cryopreservation and storage and assessment of embryo viability.
8	Identify the correct specific prognostic and predictive markers in designing patient management programmes (eg oestrogen receptor, HER-2) for breast cancer, colon cancer, prostate cancer etc.
9	Present and analyse data in simple terms in both oral and written formats.

Learning, Teaching and Assessment Strategy

Information outlining the knowledge and understanding required for this module is delivered in lectures. This information is reinforced by practical and workshop sessions. In the workshops you will work in groups to research information, interpret data, solve problems and develop your understanding. The workshop exercises will require you to work under pressure, meet deadlines and develop communication skills. Teaching is enhanced by the use of visiting specialist lecturers from local Hospitals.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Examination - closed book	Examination comprising two from a choice of five essays	2 hours	60%
Summative	Coursework	Group presentation	1 hour	20%
Summative	Coursework	Data interpretation exercise	1 hour	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.