

Clinical Diagnostics in Reproductive Science

Module Code:	BIS6018-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Chemistry and Biosciences
Subject Area:	Biomedical Science
FHEQ Level:	FHEQ Level 6
Module Leader:	Dr Martin Brinkworth

Additional Tutors:

Pre-requisites:	Cell and Tissue Biology 2016-17, Human Genetics and
Co-requisites:	

Contact Hours

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

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Semester 2 (Feb - May)

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

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 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	Final Assess'
Summative	Examination - closed book	Examination comprising two from a choice of five essays	2 hours	60%	Yes
Summative	Coursework	Group presentation	1 hour	20%	No
Summative	Coursework	Data interpretation exercise	1 hour	20%	No

Legacy Code (if applicable)

BM-6132D

Reading List

To view Reading List, please go to [rebus:list](#).