

Assisted Reproduction Technologies I

Module Information

2022.01, Approved

Summary Information

Module Code	7502CEBMOL
Formal Module Title	Assisted Reproduction Technologies I
Owning School	Pharmacy & Biomolecular Sciences
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
CARE Fertility

Learning Methods

Learning Method Type	Hours
Lecture	18
Off Site	5
Practical	12
Workshop	5

Module Offering(s)

Display Name	Location	Start Month	Duration Number	Duration Unit
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SEP-PAR	PAR	September	12 Weeks
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Aims and Outcomes

Aims	This module will provide you with postgraduate level knowledge and understanding of fundamental concepts and issues involved in Assisted Reproductive Technology (ART), at both a scientific and clinical level. You will be introduced to endocrinology, assisted reproduction treatments and techniques, assessment and preparation of gametes and human embryo in vitro culture. The module will explore the issues and framework surrounding assisted conception in terms of regulation and the law and ethics of the technologies available. Further areas surrounding the fertility patient will be explored such as confidentiality, patient contact, counselling and informed consent. As part of this module, students will be allocated a patient to follow through a treatment cycle to help broaden their understanding of all aspects of fertility investigations and treatment.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically discuss ethical and legal issues associated with ART and the treatment of infertility.
MLO2	2	Demonstrate advanced theoretical and practical knowledge of gamete handling and grading, embryology, and andrology.
MLO3	3	Critically discuss risk management and quality assurance.
MLO4	4	Demonstrate the ability to apply critical thinking when presented with a clinical case study.

Module Content

Outline Syllabus	<ul style="list-style-type: none"> • Infertility diagnosis and management of patients • The human fertilisation and embryology authority (HFEA): Ethics and law in embryology • Semen analysis and sperm handling including estimating sperm concentration, motility and viability • Sperm preparation and cryopreservation • Oocyte pick-up or retrieval • Oocyte and pre-implantation embryo development, morphology and assessment • Andrology laboratory risk management and quality assurance • IVF laboratory risk management and quality assurance • Students will be allocated a patient to follow through a treatment cycle and consider all the different aspects of their care (assessment for this will be part of the portfolio).
Module Overview	
Additional Information	All lectures and practicals will be covered by experts in their respective fields who will introduce the basic principles of ART, both in the clinical and academic setting. Hands on experience will be provided using animal models where required using equipment and consumables (plasticware, pipettes and culture medium) commonly used in IVF clinics. Students will be expected to advance their knowledge of the topics covered in lectures throughout the programme by independent research.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Essay/lab report/case study	50	0	MLO1, MLO2, MLO3, MLO4
Exam	Exam	50	3	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Giles Watts	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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