

BIM371 Clinical Embryology

School: School of Health - Biomedicine

2025 | Session 8

UniSC Sunshine Coast

**BLENDED
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Please go to unisc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

Clinical embryology introduces you to the application of Assisted Reproductive Technology (ART) used by in-vitro fertilisation (IVF) laboratories throughout the world. On completion of this course, you will be able to demonstrate and evaluate current knowledge of human reproduction; molecular genetics in clinical embryology; regulation, ethics and quality management of ART; early reproductive events and ART; assessment of embryo quality; and cryopreservation techniques.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Tutorial/Workshop 1 – Online workshop	1hr	Week 2	4 times
Learning materials – Pre-recorded concept videos and associated activities delivered online.	2hrs	Week 2	8 times
Tutorial/Workshop 2 – In-class on campus workshop.	3hrs	Week 2	4 times
Laboratory 1 – In-class on campus laboratory classes.	3hrs	Week 2	7 times

1.3. Course Topics

The topics covered in this course include:

- Physiology, anatomy, histology and endocrinology of the human female and male reproductive systems.
- Genetics in assisted reproductive technology.
- Embryology techniques.
- Quality management in Australian assisted reproductive technology laboratories.
- Cryopreservation
- Early reproductive events
- Assessment of embryo quality
- Male and female infertility factors
- Regulations and ethics in clinical embryology

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES	GRADUATE QUALITIES
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...
1 Demonstrate and apply the practical skills and competencies used in embryology laboratories.	Knowledgeable
2 Describe and interpret the underlying scientific principles of assisted reproductive technologies.	Knowledgeable Creative and critical thinker
3 Critically analyse and evaluate assisted reproductive technology practices and quality control principles.	Empowered
4 Identify, describe and evaluate the ethical and regulatory principles that apply to the clinical embryology setting.	Ethical

5. Am I eligible to enrol in this course?

Refer to the [UniSC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

LFS202 or LFS203 or enrolled in Program SC357 or UB001

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

It is recommended that students have prior knowledge and skills in human physiology, human genetics and biochemistry.

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

In weeks 2 and 3 of this course you will participate in tutorial and laboratory classes, these classes have both formative and summative components based on the topics and content covered to date. These will provide you with an opportunity to revise your understanding of each topic.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Practical / Laboratory Skills	Individual	50%	Up to 2000 words	Refer to Format	In Class
All	2	Examination - not Centrally Scheduled	Individual	30%	90 minutes	Week 4	In Class
All	3	Artefact - Creative, and Oral	Individual or Group	20%	10 min	Week 8	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Practical/ laboratory skills portfolio

GOAL:	You will develop practical laboratory skills, assess and apply quality control measures and ethical practices, and will demonstrate competency in laboratory techniques that are relevant to assisted reproductive technology.											
PRODUCT:	Practical / Laboratory Skills											
AUTHORSHIP STATEMENT:												
FORMAT:	Weeks 2, 3, 6 & 7 - Individual professional competencies will be demonstrated through the completion of a training manual/logbook style laboratory workbook, participation in laboratory activities and a practical examination.											
CRITERIA:	<table border="1"> <thead> <tr> <th>No.</th> <th>Learning Outcome assessed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Demonstration of practical laboratory competencies 1</td> </tr> <tr> <td>2</td> <td>Description and assessment of quality control measures 3</td> </tr> <tr> <td>3</td> <td>Identification and appraisal of ethical practices 4</td> </tr> <tr> <td>4</td> <td>Analysis of scientific principles relevant to embryology practices 2</td> </tr> </tbody> </table>	No.	Learning Outcome assessed	1	Demonstration of practical laboratory competencies 1	2	Description and assessment of quality control measures 3	3	Identification and appraisal of ethical practices 4	4	Analysis of scientific principles relevant to embryology practices 2	
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3	Identification and appraisal of ethical practices 4											
4	Analysis of scientific principles relevant to embryology practices 2											
GENERIC SKILLS:	Communication, Problem solving, Applying technologies											

All - Assessment Task 2: Examination

GOAL:	This examination will explore the theoretical knowledge of the physiology, anatomy, histology, endocrinology and molecular genetics associated with human male and female reproductive systems and the scientific principles behind assisted reproductive technologies.										
PRODUCT:	Examination - not Centrally Scheduled										
AUTHORSHIP STATEMENT:											
FORMAT:	An individual, closed book, mid-semester examination composed of multiple-choice and short answer style questions. The examination will cover course material delivered via learning materials, tutorial/workshop and practical classes.										
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2	Analysis of information and explanation of important elements of human reproduction	2 3									
GENERIC SKILLS:	Communication, Problem solving, Information literacy										

All - Assessment Task 3: ART Presentation

GOAL:	To research and develop a deeper understanding of an important assisted reproductive technology (ART), to integrate relevant ART principles that have been addressed throughout the course, and to identify and evaluate ethical and regulatory principles in a clinical embryology setting.													
PRODUCT:	Artefact - Creative, and Oral													
AUTHORSHIP STATEMENT:														
FORMAT:	A 10 min presentation that critically analyses and discusses the scientific basis of an aspect (or aspects) of an assisted reproductive technology (ART). The presentation can be completed either individually or in pairs (for pairs it is expected that each student in the pair contribute equally to the presentation).													
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1	Scientific merit of the content (description, interpretation and analysis)	2												
2	Description of ethical and quality control principles in ART.	3 4												
3	Scientific communication skills and time management	2												
GENERIC SKILLS:	Communication, Information literacy													

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

You need regular access to the resource(s) below. Many texts are available as ebooks through the [Library](#) at no additional cost.

REQUIRED?	AUTHOR	YEAR	TITLE	EDITION	PUBLISHER
Required	Martin H. Johnson	2018	Essential Reproduction	8th	John Wiley & Sons

8.2. Specific requirements

You will be expected to purchase the BIM371 Course Practical Manual from UniSC Mail and Print Services (MaPS). In addition, you will be required to bring a laboratory coat, safety glasses and enclosed non-slip footwear to the course practical classes.

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training for students](#), and following the instructions of the University staff

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- (a) The final mark is in the percentage range 47% to 49.4%; and
- (b) The course is graded using the Standard Grading scale

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:

- (a) One day: deduct 5%;
- (b) Two days: deduct 10%;
- (c) Three days: deduct 20%;
- (d) Four days: deduct 40%;
- (e) Five days: deduct 60%;
- (f) Six days: deduct 80%;
- (g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:

- Less than 15 minutes: No penalty
- From 15 minutes to 30 minutes: 20% penalty
- More than 30 minutes: 100% penalty

10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au