



MOLS8002

Bioethics and Biotechnology

Session 2, In person-scheduled-weekday, North Ryde 2026

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Unit Convenor, Lecturer

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Lecturer, tutor

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Credit points

10

Prerequisites

HSYP8100 or HSYP8101, or Admission to GradDipBiotech or MBiotech

Corequisites

Co-badged status

Unit description

This unit introduces students to ethical issues raised by current developments in biotechnology, especially in the sphere of genetic technology. Topics include the ethics of genetic technology in human medicine and reproduction, including genetic screening/testing; human embryo research; genetic therapies (somatic and germ-cell); genetic enhancement; and cloning; and the impact of biotechnology on other aspects of human, animal and environmental well-being. Students develop a firm grounding in the ethical principles, theories and frameworks with which to analyse a variety of biotechnological applications, in addition to the requirements of scientific and academic conduct and the carrying out of responsible research.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Good Health and Well Being; Life on Land

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

- ULO1:** Explain the major ethical issues posed by specific biotechnological advances.
- ULO2:** Explain the central ethical concepts, principles and theories that arise in debates concerning the applications of biotechnological developments.
- ULO3:** Analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literatures.
- ULO4:** Apply the skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences.
- ULO5:** Construct clear and rigorous arguments in support of your own ethical positions and values.
- ULO6:** Apply enhanced skills in clarity of thought, clarity of oral and written expression, and written argumentation.

General Assessment Information

Requirements to Pass this Unit: Achieve a total mark equal to or greater than 50%.

It is an expectation that students will engage with all lectures and parts of the unit and will attempt all assessments.

Detailed assessment information and rubrics

Detailed information about each of the assessments, including rubrics and submission instructions will be available in the Assessment block in iLearn. Please make sure you read the assessment information carefully. Assessment Q&A forums for each assessment will be available on the unit iLearn. If you have an assessment question please first check the assessment information and the relevant assessment Q&A forum, to see if your question has already been answered. If not, please post your question on the assessment forum where it will be answered within 1-2 days (weekdays). Please do not email your tutor unless you have tried all the above sources and cannot find an answer to your question.

Release dates:

Assessment 1 (Essay): To be released no later than 31 August

Assessment 2 (Blog Portfolio): To be released no later than 27 July

Assessment 3 (Examination): The exam is closed book exam. Exam information and rubric will be released no later than October 5

General Submission Procedure

Written assessments must be submitted via TurnItIn at the correct link provided on the Unit iLearn site. You will **not** be able to view your TurnItIn match similarity report for your assessment before you submit it. **You must ensure that you use the correct link for your assessment, and that you upload the correct final version of your assessment.**

Late Assessment Submission Penalty

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark of the task) will be applied for each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is **11:55 pm**. A 1-hour grace period will be provided to students who experience technical concerns. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, please apply for [Special Consideration](#). For example, if the assignment is worth 8 marks (of the entire unit) and your submission is late by 19 hours (or 23 hours 59 minutes 59 seconds), 0.4 marks (5% of 8 marks) will be deducted. If your submission is late by 24 hours (or 47 hours 59 minutes 59 seconds), 0.8 marks (10% of 8 marks) will be deducted, and so on.

Assessments where Late Submissions will be accepted

Assessment 1 (Essay) – YES, Standard Late Penalty applies

Assessment 2 (Blog Portfolio) – YES, Standard Late Penalty applies

Assessment 3 (Exam) - NO, unless Special Consideration/Supplementary Exam is granted

Special Consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events

that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through <http://connect.mq.edu.au/>.

Short Extensions:

For some assessment types, students are allowed to request an extra 3 calendar days to complete eligible assessments. No reason or evidence is required. In this unit, short extensions apply to Assessment 1 (Essay) and Assessment 2 (Blog Portfolio).

Academic Integrity

Academic honesty is taken very seriously, and a range of methods, including but not restricted to the use of Turnitin, are used to detect plagiarism. Misrepresenting someone else's work as your own may be grounds for referral to the Faculty Disciplinary Committee. If you have questions about how to properly cite work or how to credit sources, please ask the convenor for help and see also the Academic Integrity Policy <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/academic-integrity>

Note: All assignments in this unit are individual assignments. Collusion (unauthorised collaboration on individual assignments) is a breach of the Academic Integrity Policy. If in doubt, contact a member of teaching staff.

A helpful resource if you would like to know more about referencing and avoiding plagiarism is Macquarie's Academic Integrity Module, available here: <https://students.mq.edu.au/support/study/skills-development>. You will need to complete this Module before accessing the unit content, if you have not already done so. More information is available in iLearn.

GenAI/ChatGPT

In this unit, it is expected that all work you submit demonstrates your own understanding, analysis, research, reflection, critical thinking, and writing. You will be marked on the basis of your demonstrated understanding of and engagement with the unit content and activities. This applies to all assessments, including online forums/blogs.

Assessment 1 (Essay) and Assessment 2 (Blog Portfolio) are 'AI Open' assessments. This means that you are permitted to use AI in the preparation of your work. But in all cases, your submitted assessment must ultimately be authored by you and must reflect your own understanding, so that you can explain and expand on all of the content and sources used in your submitted work. This is what it means to be the author of your work, and to be able to demonstrate your own personal understanding of everything you have written. You can use AI to help you to research, structure/organise, and express your ideas in your essay or blog entries, but you are not to submit entire AI outputs as your assessment. If your teachers have concerns about whether a submission is genuinely your own work, you may be required to attend an interview with the Unit Convenor or other academic staff to discuss your work and demonstrate your personal understanding and attainment of unit and task learning outcomes.

Assessment 3 (Exam) is an 'Observed' assessment. Use of AI is not permitted.

For information about policies related to Assessment, see *Policies and Procedures* section below.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Essay	35%	No	27/09/2026	Individual	Yes	Open
Practice-based portfolio	30%	No	01/11/2026	Individual	Yes	Open
Final Exam	35%	No	University examinations period	Individual	No	Observed

Essay

Assessment Type ¹: Written Submission

Indicative Time on Task ²: 35 hours

Due: **27/09/2026**

Weighting: **35%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Students produce a piece of argumentative writing in response to assigned essay questions.

On successful completion you will be able to:

- Explain the major ethical issues posed by specific biotechnological advances.
- Explain the central ethical concepts, principles and theories that arise in debates concerning the applications of biotechnological developments.
- Analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literatures.
- Apply the skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences.
- Construct clear and rigorous arguments in support of your own ethical positions and values.
- Apply enhanced skills in clarity of thought, clarity of oral and written expression, and written argumentation.

Practice-based portfolio

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **01/11/2026**

Weighting: **30%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Students create a portfolio of workshop activities that will be submitted at the end of the session.

On successful completion you will be able to:

- Explain the major ethical issues posed by specific biotechnological advances.
- Explain the central ethical concepts, principles and theories that arise in debates concerning the applications of biotechnological developments.
- Analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literatures.
- Apply the skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences.
- Construct clear and rigorous arguments in support of your own ethical positions and values.
- Apply enhanced skills in clarity of thought, clarity of oral and written expression, and written argumentation.

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 35 hours

Due: **University examinations period**

Weighting: **35%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

You will undertake a final examination during the formal examination period.

On successful completion you will be able to:

- Explain the major ethical issues posed by specific biotechnological advances.
- Explain the central ethical concepts, principles and theories that arise in debates concerning the applications of biotechnological developments.
- Apply the skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences.

- Construct clear and rigorous arguments in support of your own ethical positions and values.
 - Apply enhanced skills in clarity of thought, clarity of oral and written expression, and written argumentation.
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¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- [Academic Success](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

Delivery and Resources

Week 1 classes:

Lectures and SGTAs will commence in Week 1.

Delivery:

Lectures in this unit will be in-person (on-campus) with recordings available online via Echo360 and the unit iLearn site. SGTAs will be on campus.

Methods of Communication:

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the relevant iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

READING:

All required readings are available in Leganto on the unit iLearn site. Supplementary reading is required for Essays. Further suggestions for Supplementary Reading may be provided in lectures and on iLearn.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)

- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)

- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

Unit information based on version 2026.03 of the [Handbook](#)