PHIL2060

Bioethics and Biotechnology

Session 2, Special circumstance 2020

Department of Philosophy

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
Mianna Lotz
mianna.lotz@mq.edu.au

Credit points
10

Prerequisites
40cp at 1000 level or above

Corequisites

Co-badged status
PHIL2060 is co-located with MOLS8002.

Unit description
This unit introduces students to a selection of the most pressing ethical questions and concerns raised by current and recent developments in the so-called 'biotech revolution', especially in the sphere of genetic technology. The first section of the unit provides an introduction to ethical reasoning, to issues of social justice and to the relationship between social values, scientific enquiry and research ethics in the context of biotechnology. The second section focuses on the ethics of gene technology in the spheres of human medicine and reproduction, including: genetic screening/testing; gene editig and therapies; genetic enhancement; and human reproductive cloning. In the third section we explore the impact of biotechnologies on other aspects of human, non-human animal and environmental welfare including: genetic engineering of plants and animals (GMOs); biofortification of food; bio-prospecting; and commercial exploitation of human genetic material. The unit is an ethics unit, not a science unit, and prior scientific knowledge is not required.

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: demonstrate a sound understanding of the major ethical issues posed by specific biotechnological advances.

ULO2: analyse and critically evaluate relevant case studies and scientific contexts, as

well as theories and arguments in the relevant literature.

ULO3: develop and apply skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences

ULO4: construct sound arguments in support of your own ethical positions, judgements and values.

ULO5: Express orally and in written communication with improved clarity of thought, expression, and argumentation.

General Assessment Information

NOTE: It is expected that students will complete ALL ASSESSMENT COMPONENTS in this unit. You do not need to have passed each assessment to pass the unit, but it is expected that all assessments are attempted.

General Submission Procedure: Essays and presentations (if applicable) must be submitted via TurnItIn at the correct link provided on the Unit iLearn site. Please note that there will be separate links for MOLS8002 and PHIL2060 students. Please ensure that you use the correct link for your assessment!

Extensions: Extensions must be sought via the MQ Special Consideration application procedure, in advance of the due date. Extensions will only be granted for medical or equivalent reasons, supported by documentation (medical certificate or equivalent). Please note that workload in other units, and employment outside of university, will not be accepted as grounds for an extension.

LATE SUBMISSION POLICY: Unless a Special Consideration request has been submitted and approved, the following will apply:

(a) Late penalty – two (2) marks out of 100 will be deducted per day for assignments submitted after the due date;

(b) No assignment will be accepted more than seven (7) days (incl. weekends) after the original submission deadline. (c) No late submissions will be accepted for timed assessments – i.e. online test and examination.

Assessment Tasks

Name	Weighting	Hurdle	Due
Online Intro and film reflection	10%	No	End of Week 2
Online timed test	20%	No	Week 5 (Precise timing and format to be advised)

Name	Weighting	Hurdle	Due
Essay	30%	No	18 September OR 6 November
Active participation and engagement	15%	No	Continuous
Online Examination	25%	No	University Examinations period

Online Intro and film reflection

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 2.0 hours
Due: **End of Week 2**
Weighting: **10%**

Students introduce themselves online and post a brief reflection on the film in Lecture 1

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Online timed test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 20 hours
Due: **Week 5 (Precise timing and format to be advised)**
Weighting: **20%**

Students complete a 1hr timed online test within a 24 hr period.

On successful completion you will be able to:

- demonstrate a sound understanding of the major ethical issues posed by specific biotechnological advances.

- analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literature.
- develop and apply skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences
- Express orally and in written communication with improved clarity of thought, expression, and argumentation.

Essay

Assessment Type [1]: Essay
Indicative Time on Task [2]: 30 hours
Due: **18 September OR 6 November**
Weighting: **30%**

Students complete a 1500 word argumentative essay.

On successful completion you will be able to:

- demonstrate a sound understanding of the major ethical issues posed by specific biotechnological advances.
- analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literature.
- develop and apply skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences
- construct sound arguments in support of your own ethical positions, judgements and values.
- Express orally and in written communication with improved clarity of thought, expression, and argumentation.

Active participation and engagement

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 15 hours
Due: **Continuous**
Weighting: **15%**

Students actively participate in 70% of zoom tutorials OR online discussion boards (as agreed with Convenor) demonstrating familiarity with readings and contributing actively to discussions.

On successful completion you will be able to:

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- construct sound arguments in support of your own ethical positions, judgements and values.
- Express orally and in written communication with improved clarity of thought, expression, and argumentation.

Online Examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 25 hours
Due: **University Examinations period**
Weighting: **25%**

Students complete a 1.5hr timed online examination during the Examinations period.

On successful completion you will be able to:

- demonstrate a sound understanding of the major ethical issues posed by specific biotechnological advances.
- analyse and critically evaluate relevant case studies and scientific contexts, as well as theories and arguments in the relevant literature.
- develop and apply skills and concepts involved in ethical reasoning and argumentation to past, current and future controversies in biotechnological and other sciences
- construct sound arguments in support of your own ethical positions, judgements and values.
- Express orally and in written communication with improved clarity of thought, expression, and 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
- the Writing Centre 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

Delivery and Resources

Due to COVID-19 restrictions there will be a 2-part or 3-part recorded lecture each week and one 1-hour tutorial (zoom or face-to-face for Internals) or discussion board Forum (for Externals) per week.

Students are expected to complete **3.5 hours of unit reading and private study per week** in this unit**,** *additional to* lecture listening and tutorial participation and any essay/test/exam preparation time.

REQUIRED READING: All required reading in this unit can be accessed via the PHIL2060/ MOLS8002 Bioethics and Biotechnology Leganto link on the unit iLearn site.

The readings are **compulsory** reading for this unit. You will be expected to keep up with the readings throughout semester, and tutorial/online discussion as well as the test and examination will all presume prior familiarity with the relevant readings.

RECOMMENDED READING: A list of Additional Readings, for use for your essays, exam study and as supplementary reading throughout the semester, is available via Leganto at the MQ Uni Library (see instructions and link on the unit iLearn).

Unit Schedule

SCHEDULE OF CLASSES AND REQUIRED READINGS

Note*: The following are REQUIRED readings for this unit. Unless otherwise specified, all readings listed below are in Leganto Where more than one reading is listed priority is to be given to reading(s) marked '*'****. Additional or alternative readings may be required and will be notified via iLearn.***

SECTION I: (WEEKS 1–5) FRAMEWORKS FOR ETHICAL REASONING

TOPIC 1 WEEK 1 (beginning July 27): Introduction/overview of course. Introducing the process and principles of ethical reasoning.

Reading:

*Stephen Cohen: 'What is Ethics?

*James Rachels: 'What is Morality?'

NOTE*: NO TUTORIALS in Week 1*

TOPIC 2 WEEK 2 (beginning Aug 3): Overview of key moral theories and their applications to issues in biotechnology.

Reading:

* Damian Grace and Stephen Cohen: Excerpt from *Business Ethics: Problems and Cases*.

* Anne Thomson: 'Moral Principles and Moral Theories'.

NOTE: Online Discussion Exercise due: by 11.59pm Fri 7th August.

TOPIC 3 WEEK 3 (beginning Aug 10): The role of ethics and social values in science

Reading:

* E. Emanuel *et al:* 'What Makes Clinical Research Ethical?' *Journal of the American Medical Association (JAMA),* Vol. 283, No. 2 (May24/31: 2701-2711.

* Glass: 'The Ethical Basis of Science.'

TOPIC 4 WEEK 4 (beginning Aug 17): The moral legacy of eugenics and key principles of justice in biotechnology.

Reading:

* Buchanan et al: Excerpt from 'Eugenics and Its Shadow'

* Wikler and Barondess: 'Bioethics and Anti-Bioethics in Light of Nazi Medicine: What Must We Remember?'

Buchanan et al: Excerpt from 'Genes, Justice and Human Nature.'

WEEK 5 (beginning Aug 24): TIMED ONLINE TEST: Must be completed within 24 hours from the date/time notified on iLearn and in lectures.

NOTE: *NO LECTURE OR TUTORIALS this week*

SECTION II (WEEKS 6–10): GENETIC TECHNOLOGY IN THE SPHERE OF HUMAN HEALTH AND REPRODUCTION

TOPIC 5 WEEK 6 (beginning Aug 31): Guest Lecturer: Dr Katrina Hutchison – Ethical issues posed by genetic screening, testing and diagnosis

Reading:

* Clarke: 'Genetic Screening and Counselling.'

* Steinbock: 'Preimplantation Genetic Diagnosis and Embryo Selection.'

TOPIC 6 WEEK 7 (beginning Sept 7): Stem cell research and the moral status of human embryonic stem cells.

Reading:

* Harris: 'Stem Cells, Sex and Procreation'

MONDAY 14 SEPT – FRIDAY 25 SEPT (inclusive): MID SEMESTER BREAK

*** ESSAY OPTION 1 DEADLINE: 11.59pm Friday 18 September**

TOPIC 7 WEEK 8 (beginning Sept 28): Would it be morally permissible to clone human beings for procreative purposes?

Reading:

* Brock: 'Cloning Human Beings: An Assessment of the Ethical Issues Pro and Con.'

Holm: 'A Life in the Shadow: One Reason Why We Should Not Clone Human Beings.'

Kass: 'The Wisdom of Repugnance.'

TOPIC 8 WEEK 9 (beginning Oct 5): The ethics of somatic and germline genetic therapy

Reading:

* Chadwick: 'Gene Therapy.'

* Smolensky: 'CRISPR/Cas9 and Germline Modification: New Difficulties in Obtaining Informed Consent' [available on the unit iLearn under 'Week 8' and via Leganto]

Elias and Annas: 'Somatic and Germline Gene Therapy.'

Warren: 'The Moral Status of the Gene.'

TOPIC 9 WEEK 10 (beginning Oct 12): Guest lecture: Professor Wendy Rogers – The moral acceptability of genetic enhancement and the therapy/enhancement distinction

Reading:

* Peter Singer: 'Parental Choice and Human Improvement'.

* Ruud Ter Meulen *et al:* 'Ethical Issues of Enhancement Technologies'.

David Resnik and Daniel B. Vorhaus: 'Genetic Modification and Genetic Determinism'.

SECTION III (WEEKS 11-12): THE SOCIAL AND ENVIRONMENTAL IMPLICATIONS OF

BIOTECHNOLOGY

TOPIC 10 WEEK 11 (beginning Oct 19): Ethical issues posed by commercialisation of human genetic material

Reading:

* Chadwick and Hedgecoe: 'Commercial Exploitation of the Human Genome'

Munzer: 'Property, Patents and Genetic Material'

TOPIC 11 WEEK 12 (Oct 26): Ethical and environmental issues in food biotechnology.

Reading:

*Thompson: 'Ethical Issues in Food Biotechnology'

*Scott: 'The Technological Fix Criticisms and the Agricultural Biotechnology Debate' [available on the unit iLearn under 'Week 12' and via Leganto]

NB: The papers by Altieri & Rosset and McGloughlin in the Unit Reader are optional only.

*** ESSAY OPTION 2 DEADLINE: 11.59pm Friday 6 November**

SEMESTER ENDS – EXAMINATIONS BEGIN

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Students seeking more policy resources can visit the Student Policy Gateway (https://students.m

q.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/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 ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

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

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- 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

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

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.