



School of Physics

Course Outline 2022

GENS4015

Brave New World

School of Physics

Faculty of Science

T1, 2022

1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Sarah Martell	s.martell@unsw.edu.au	Consultation times: by arrangement via email Room 139, Old Main Building	(02) 9065 2276
Teaching Support Officer	Zofia Krawczyk-Bernotas	z.krawczyk-bernotas@unsw.edu.au	School of Physics office G06, Old Main Building	(02) 9065 5719

2. Course information

Units of credit: 6

Pre-requisite(s): Nil

Teaching times and locations: online

<http://timetable.unsw.edu.au/2022/GENS4015.html>

2.1 Course summary

This fully online course aims to give a big picture overview of the physical sciences at the dawn of the 21st century and beyond. The most common interface between the general public and science is often through science fiction; hence, science fiction is used as a teaching aid to stimulate student interest and as a starting point from which to communicate the science and its likely future development. This course also examines the interaction between science and society, encouraging students to consider how culture influences science and vice versa. This course aims to provide students with the level of scientific and technological literacy required to take an informed part in debate on important scientific issues.

No prior scientific or mathematical knowledge is assumed. In fact, we aim to provide you with the essentials on these topics in this course.

The areas covered are: the physics of space and time; astronomy; space travel and exploration; astrobiology; life in the Universe; artificial intelligence; quantum science; the future of planet Earth, including an examination of the physics of climate change.

Note: Students enrolled in a Faculty of Science program should not take this course.

2.2 Course aims

The aims of this course are to:

- x give a big picture overview of the physical sciences in the first decades of the 21st century and beyond;
- x use science fiction movies and literature as a starting point for communicating science and its

Location: Wholly online, work through as you wish during each week of the term . Expect to spend around 3 hours per week working on lectures, and a total of 12 hours per week when including assessment tasks, averaged over the whole Session. This is the usual expected course load for a 6 Unit-of-Credit subject

3.2 Expectations of students

Students are expected to read all allocated readings and watch all lectures each week.

Students are also expected to take part on online discussions from Weeks 2 to 9.

Students should check the GENS4015 Moodle page several times a week and make sure they are keeping up with the course.

The Moodle page is divided into weekly Topics, from weeks 1 to 10. You should read all information under the topic for the current week of semester.

There is a News section at the top of the Moodle page. Please check this regularly for course updates.

Academic misconduct will not be tolerated in any form in this course . Substantiated instances of cheating, plagiarism or copying answers may result in a failure grade or significant deduction of marks. Please read <https://student.unsw.edu.au/plagiarism> if you are in any way unsure of what constitutes plagiarism. Assignments in this class are to be done independently.

4. Course schedule and structure

Week	Topic	Assessment items
Week 1	Astrophysics	
Week 2	Astrophysics	Writing assignment 1: by 23:59 Friday 25/2
Week 3	Astrobiology	Writing assignment 2: by 23:59 Friday 4/3 Project proposal: by 23:59 Sunday 6/3
Week 4	Astrobiology	Writing assignment 3: by 23:59 Friday 11/3 Quiz 1: by 23:59 Sunday 13/3
Week 5	The future of the Earth and climate change	Writing assignment 4: by 23:59 Friday 18/3 Peer reviews: by 23:59 Sunday 20/3
Week 6	Flexibility week	None

Further information about referencing styles can be located at

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