

## SCIE 302 COURSE OUTLINE

### Faculty of Science

### SCIE 302: Revolutions in science

### 2013, Trimester 1

- **Staff**

Course Coordinator:

Dr Rebecca Priestley, Cotton Building 128

Email: [rebecca.priestley@vuw.ac.nz](mailto:rebecca.priestley@vuw.ac.nz)

Phone: 04 463 5233 extn **7134**

No set office hours. This is a fully online course so all student support is provided through Blackboard.

Alternative contact:

Dr Rhian A Salmon, Cotton Building 126

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Phone: 04 463 5507, Mobile: 021 298 4319

- **Withdrawal dates**

**Information on withdrawals can be found at:**

<http://www.victoria.ac.nz/home/admisenrol/payments/withdrawalsrefunds.aspx>

- **Class times and room numbers**

This course is entirely on-line. Computer and internet access are critical. These can be used from the physical campuses of Victoria University, or remotely.

- **Course content**

SCIE 302 is an introduction to the history of science. It provides an overview of major theories in the history of science, from classical Greek and Medieval science to the European enlightenment to 20<sup>th</sup> century revolutions in physics, biology and earth sciences. A module on New Zealand science history will examine the encounter between the different worldviews of Maori and Europeans in the 18<sup>th</sup> century and look at the changing focus of New Zealand science through the 19<sup>th</sup> and 20<sup>th</sup> centuries. On completing the course, students will be able to put current scientific events, and their own academic or professional field, in the context of centuries of the history of scientific thought.

Experts from Victoria University's Faculty of Science (Schools of Geography, Environment & Earth Sciences, Chemical & Physical Sciences, Biological Sciences) and Faculty of Humanities and Social Sciences (School of History, Philosophy, Political Science & International Relations and Te Kawa a Maui) will record lectures especially for this course and make themselves available to students, in an online discussion forum, during the weeks that their topic is covered. Students are therefore expected to remain actively engaged throughout the course.

The pre-recorded lectures will be discussed through an on-line forum, supported by reading material, tested with assignments at the end of each module, and explored on a deeper level through two essays and a blog post.

This is an entirely on-line course. No face-to-face time is expected although direct interaction with the course coordinator, lecturers, and tutors/demonstrators is continually available, and encouraged, through the on-line interface.

- **Course modules and lecturers**

**Module 1: March 4-17, 2013**

**From ancient world views to the Scientific Revolution** Professor Ed Mares

**Module 2: March 18-April 5, 2013**

**Revolutions in earth sciences: From a created earth to a changing planet**

Associate Professor Gillian Turner

Emeritus Professor Michael Crozier

**Module 3: April 8-19, 2013**

**Revolutions in the biological sciences**

Professor Phil Lester

**Module 4: April 29 – May 10, 2013**

**Chemistry, physics and the nature of matter**

Dr Alexander Maxwell

Professor Shaun Hendy

Dr Rebecca Priestley

**Module 5: May 13-24, 2013**

**Science in Aotearoa New Zealand**

Dr Ocean Mercier

Dr Rebecca Priestley

- **Learning objectives**

Students who pass this course will be able to:

1. Demonstrate a sound understanding of some key scientific theories in the history of science.
2. Critically examine current scientific theories and events, and place them in the context of the history of scientific thought.
3. Present scientific ideas and theories through well structured, clearly argued and well-communicated essays and a blog post.
4. Place their own academic or professional field in the context of centuries of scientific thought.

- **Course delivery**

Pre-recorded lectures, discussed through an on-line forum and tutorial groups, will be supported by reading material, tested with assignments at the end of each module, and explored on a deeper level through two essays and an informal piece of self-reflective writing (the blog post).

Students are required to participate in on-line discussions, to submit assignments at the completion of each module, to complete two essays, and write a blog post about the course. All of these components will be accessible through the Blackboard interface.

The course is completely on-line.

- **Expected workload**

Approximately 150 hours is required to complete this course. This is divided into five modules, two essays and one blog post. Each module has a workload of 20 hours over a fortnight. This is divided into:

- watching lectures
- reading
- participating on on-line forums
- preparing assignments
- reviewing and reflecting on content.

In addition, students will be required to complete two essays (of 2000-2500 words each) and one blog post (of 700-1000 words)

- **Group work**

The discussion forums and tutorial groups are an opportunity for group dialogue, but no group assignments will be set. All students are required to take an active role in the tutorial groups and discussion forum (at least two posts per student per module).

- **Readings**

All readings can be found via the SCIE 302 Blackboard interface, and SCIE 302 course catalogue in the VUW Library website. Individual articles and chapters will be provided as PDFs via the Blackboard library interface. In addition, books and articles will be recommended for a broader understanding of each topic. These will be available through the library.

- **Materials and equipment**

Access to the internet, VUW intranet, and Blackboard, and associated equipment, is essential.

- **Assessment requirements**

Component/due date	% marks	Learning objectives
Module 1 assignment/18 March 2013	8	1, 2
Module 2 assignment/8 April 2013	8	1, 2
Module 3 assignment/ 24 April 2013	8	1, 2
Module 4 assignment/13 May 2013	8	1, 2
Module 5 assignment/27 May 2013	8	1, 2
Blog post/14 June 2013	10	1, 2, 3, 4
Essay 1/29 April 2013	25	1, 2, 3
Essay 2/7 June 2013	25	1, 2, 3
<b>Total</b>	<b>100</b>	<b>150</b>

- **Penalties**

In the absence of prior arrangements, assignments turned in late will incur a penalty of 10% per day overdue.

- **Practicum arrangements**

N/A.

- **Mandatory course requirements**

A mark of >40% in each assignment is required. To pass the course, a total aggregate mark of 50% or more is required. All assignments must be attempted. Contribution to the on-line discussion forums is required to pass the course. Each student will be required to make at least two posts per module (ie, 10 posts in total). For each module, each student must post one question or observation using the CREATE THREAD function and post one answer, comment or observation in response to a thread created by another student, lecturer or tutor.

- **Class Representative**

A class representative will be elected in the first class, and that person's name and contact details will be available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

- **Academic integrity and plagiarism**

Academic integrity means that university staff and students, in their teaching and learning are expected to treat others honestly, fairly and with respect at all times. It is not acceptable to mistreat academic, intellectual or creative work that has been done by other people by representing it as your own original work.

Academic integrity is important because it is the core value on which the University's learning, teaching and research activities are based. Victoria University's reputation for academic integrity adds value to your qualification.

The University defines plagiarism as presenting someone else's work as if it were your own, whether you mean to or not. 'Someone else's work' means anything that is not your own idea. Even if it is presented in your own style, you must acknowledge your sources fully and appropriately. This includes:

- Material from books, journals or any other printed source
- The work of other students or staff
- Information from the internet
- Software programs and other electronic material
- Designs and ideas
- The organisation or structuring of any such material

Find out more about plagiarism, how to avoid it and penalties, on the University's website: [www.victoria.ac.nz/home/studying/plagiarism.html](http://www.victoria.ac.nz/home/studying/plagiarism.html)

- **Use of Turnitin**

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an online plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted material on behalf of the University for detection of future plagiarism, but access to the full text of submissions is not made available to any other party.

- **Communication of additional information**

All information about the course will be conveyed to students via Blackboard. It is the student's responsibility to check this interface regularly for updates. In case of difficulties, the course coordinator (Dr Rebecca Priestley) will also be available by phone and email.

- **General university policies and statutes**

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the *Victoria University Calendar* or go to the Academic Policy and Student Policy sections on:

<http://www.victoria.ac.nz/home/about/policy>

The AVC (Academic) website also provides information for students in a number of areas including Academic Grievances, Student and Staff conduct, Meeting the needs of students with impairments, and student support/VUWSA student advocates. This website can be accessed at:

[http://www.victoria.ac.nz/home/about\\_victoria/avcademic/Publications.aspx](http://www.victoria.ac.nz/home/about_victoria/avcademic/Publications.aspx)