Interdisciplinary (ID) Modules

ID1003 Great Ideas 1

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	1
Academic year:	2016/7			
Planned timetable:	1.00 pm Mon, 1.00 pm Tue, 1.00 pm Thu			
The aim of the module is to trace some of the major intellectual and societal threads in the development of modern civilisation: the 'canon' of modern thought. The module focuses on four themes: logic, reason, and evidence; religion and culture; economics and society; and technology. The aim throughout is to develop students' historical and cultural knowledge, along with their analytical and critical skills. Use is made of original source material where possible, and lectures are supplemented by facilitated discussion sessions.				
Programme module type:	Available to any degree programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 to 3 lectures and 1 tutorial.			
	Scheduled learning: 40 hours		**Guided independent study:** 160 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%			
Re-Assessment pattern:	3-hour Written Examination (4 questions) = 100%			
Module Co-ordinator:	Dr C Paxton			

ID1004 Great Ideas 2

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2
Academic year:	2016/7 & 2017/8			
Planned timetable:	1.00 pm Mon, 1.00 pm Tue, 1.00 pm Fri			
Students will be introduced to influential thinkers, theories and texts across four main themes: the nature of reality; matter and the cosmos and their representations in the Arts; the idea of rights; and the principle of evolution as applied within and beyond the biological sciences. Students will encounter thinkers from Plato to Einstein, via Newton, Kant, Wollstonecraft and Darwin. They will develop an appreciation of the wider importance of figures such as these to a range of human intellectual endeavour across disciplinary boundaries. Use is made of original source material where possible, and lectures are supplemented by facilitated discussion sessions. This module complements Great Ideas 1, but may be studied independently.				
Programme module type:	Available to any degree programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures and 1 tutorial.			
	Scheduled learning: 42 hours		**Guided independent study:** 158 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%			
Re-Assessment pattern:	3-hour Written Examination = 100%			
Module Co-ordinator:	Dr B Sachs			

ID1006 Astrobiology: The Search for Life in the Universe

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2
Academic year:	2016/7			
Planned timetable:	1.00 pm			

This module aims to lead students through the scientific quest for the origin of life on Earth and the prospect for finding life on other planets, both in our solar system and on habitable worlds elsewhere in the Galaxy. The course will cover diverse topics in biology, geology, astronomy and chemistry, which comprise the field of astrobiology. We will also discuss the societal implication

of detecting life outside Earth. The course will start by studying the origins and evolution of life on Earth and will use this as a framework for how to search for life in our Solar System and beyond. Due to the wide range of scientific topics covered, the course will be suitable for non-science majors as well as those in the sciences. A key component of the course will be to examine science as a "way of knowing" by looking at the scientific process, how scientific theories are developed and refuted, and discuss the burden of proof for extraordinary claims.

Programme module type:	Optional for any degree programme.	
Learning and teaching methods and delivery:	**Weekly contact**: Lectures (2 hours x 11 weeks) Practical sessions (1 hour x 11 weeks) Oral presentation (3 hours x 3 weeks)	
	Scheduled learning: 42 hours	**Guided independent study:** 158 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%	
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%	
Re-Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%	
Module Co-ordinator:	Dr M Claire	
Lecturer(s)/Tutor(s):	Team taught	

ID2003 Science Methods

SCOTCAT Credits:	10	SCQF Level 8	**Semester:**	1
Academic year:	2016/7 & 2017/8			
Planned timetable:	1.00 pm Mon, 1.00 pm Tue, 4.00 pm Thu			

This module provides an overview of the rationale, methods, history and philosophy of science. We explore the different definitions of science, the distinction between science and pseudo-science, the design of experiments, critical thinking, errors in reasoning, methods of making inferences and generalisations, the role of personal experience and anecdotes in science, the process of scientific publication and the role of anomalies in science. The module is collaboratively taught by staff from a number of schools in the university providing a useful methodological background for all science students.

Programme module type:	Available to any degree programme.	
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 practical class.	
	Scheduled learning: 33 hours	**Guided independent study:** 67 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%	
	As used by St Andrews: 1.5-hour Written Examination = 50%, Coursework = 50%	
Re-Assessment pattern:	2-hour Written Examination = 100%	
Module Co-ordinator:	Dr C G M Paxton, Mathematics & Statistics	
Lecturer(s)/Tutor(s):	Dr C G M Paxton, Dr E Rexstad, TBC	

ID2005 Scientific Thinking

SCOTCAT Credits:	15	SCQF Level 9	**Semester:**	1
Academic year:	2016/7 & 2017/8			
Planned timetable:	Lectures: 1.00 pm Mon, Tue, Wed Tutorials: 4.00 pm - 6.00 pm Thu			

This module provides an overview of the rationale, methods, history & philosophy of science and is a more detailed, 15-credit version of ID2003. We explore the different definitions of science, the distinction between science and non-science, the design of experiments, errors in reasoning, critical thinking, personal experience & science, the grammar of graphics, the process of science, peer review, research reproducibility, data cataloguing, the treatment of anomalies & outliers, and ethics. The module is collaboratively taught by staff from a number of Schools of the University providing a useful methodological background for all science students.

Programme module type:	Optional for any degree programme.	
Anti-requisite(s):	ID2003	
Learning and teaching methods and delivery:	**Weekly contact**: 3 x 1-hour lectures (x 11 weeks), 1-hour tutorials (x 8 weeks), 1-hour seminar (x 1 week) 2-hour practical (x 1 week), 6 hours film/video viewing in total.	
	Scheduled learning: 50 hours	**Guided independent study:** 100 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%	
	As used by St Andrews: 1.75-hour Written Examination = 50%, Coursework = 50%	
Re-Assessment pattern:	2-hour Written Examination = 100%	
Module Co-ordinator:	Dr C Paxton	
Lecturer(s)/Tutor(s):	Team taught	