



UNDERGRADUATE AND HONOURS COURSES SCIENCE, TECHNOLOGY & INNOVATION STUDIES at THE UNIVERSITY OF EDINBURGH

www.stis.ed.ac.uk



The subject group for **SCIENCE, TECHNOLOGY & INNOVATION STUDIES** (STIS) offers students an innovative suite of undergraduate and honours courses on the history of science and medicine and the shaping of science and emerging technologies by cultural, economic, political and organisational factors. Based within the University of Edinburgh's School of Social and Political Science, STIS students benefit from an environment of world-renowned research on science, technology and innovation, close proximity to government and collaboration with industries in and beyond the UK.

SCIENCE AND SOCIETY 1A (SCSU08001)

Semester 1 (Blocks 1-2)

Prof Steve Yearley. Email: steve.yearley@ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Monday & Tuesday 0900 to 0950, Thursday 1710 to 1800

This course considers the social nature of science and scientific knowledge, as well as the relationship between science and wider society. Unit 1 (the anatomy of science) systematically explores important elements of scientific practice – for instance, observation, experimentation, theories and replication – and examines their fundamentally social character. In Unit 2 (Science Contextualised), students study the place of science in relation to, and as a central tool in shaping, other major social phenomena. Topics here include: Science and Politics; Science and the Environment; Science and the Law; Scientific Expertise in Society. The course studies science internally and externally using a variety of readings, including historical and sociological case studies from physics, biology and chemistry. The course will be intelligible to students of any disciplinary background.

SCIENCE AND SOCIETY 1B (SCSU08004)

Semester 2 (Blocks 3-4)

Dr. Lawrence Dritsas. Email: L.Dritsas@ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Tuesday & Friday 0900 to 0950

This course considers the ways that science and technology shape the relationship between humans and the environment. We will examine a number of topical historical and contemporary cases and in the process reflect on the role played by science and technology in how societies understand nature and environment. Themes to be dealt with include: science and cultural uses of natural resources; sociology of climate science; science, technology and international development; science and public understandings of environmental debates; science, knowledge and power; environmentalism. We will approach these themes by studying various environmental topics, including: wetlands, mountains, the oceans, agriculture, the tropics, climate, global warming, exobiology, forests and ice.

HISTORY OF MEDICINE 1 (SCSU08003)

Semester 1 (Blocks 1-2)

Dr. Neil Tarrant, Email: ntarrant@exseed.ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Monday, Tuesday and Thursday 1710 to 1800

A general introduction to the history of medicine in Western society from the Ancient Greeks to the present. It will examine some of the different ways that doctors have thought about health and illness over the past two and a half thousand years and will raise general questions about the historical origins of modern scientific medicine, the role of experts in society, the extent and limits of applicability of scientific thinking, and the relationship between scientific research and public policy. Special attention will be paid to the way that different systems of medical knowledge, and the diagnostic and therapeutic practices associated with them, were adapted to the particular social and historical environments in which they developed. This course is appropriately combined with History of Science 1.

HISTORY OF SCIENCE 1 (SCSU08002)

Semester 2 (Blocks 3-4)

Dr. Niki Vermeulen, Email: Niki.Vermeulen@ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Monday, Tuesday, Thursday 1710 to 1800

Introductory survey of the development of scientific thought from Ancient Civilizations into the Twenty First Century. Paying attention to developments in astronomy, mathematics, physics, biology, chemistry, space and computer science, the course discusses major shifts in thinking, e.g. Greek philosophy, the Scientific and Industrial Revolutions, and the role of science in the wars of the Twentieth Century. The course aims to show how non-scientific factors, like religion and politics, have had a profound effect on the development of science and its methods, as well as considering the impact of science on society in modern times. The course is appropriately combined with History of Medicine 1.

More Information

Visit our website at www.stis.ed.ac.uk. or contact the

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THE INSTITUTE FOR
THE STUDY OF SCIENCE
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TECHNOLOGY IN SOCIETY (RCSS08003)

Semester 2 (Blocks 3-4)

Prof Robin Williams, Email: R.Williams@ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Monday & Tuesday 1210 to 1300

'Technology' is seen as one of the distinguishing characteristics of modern societies and the promotion of new technologies figures centrally in economic and industrial policy. In recent years there has been extensive debate and public discussion about the social implications of particular technologies for work, for the quality of life, for health and the environment. But what is technology? How does it arise? How does it affect us? Technology in Society explores these issues and examines some of the different ways of analysing and understanding technology in society. It explores both the consequences of technical innovation for society and the ways technology is itself shaped by cultural, economic, political and organisational factors. We introduce a range of analytic perspectives on Technology in Society - drawing upon history, economics, and the sociologies of work, gender and science & technology themselves. We apply these to examine particular areas of technological activity including the workplace, the home, reproduction, and weapons technology. Technology in Society reflects the interdisciplinary traditions of social studies of science. It is intended to appeal to students taking either social science or natural science programmes.

GENDER, SCIENCE AND TECHNOLOGY (SCIL10022f)

Dr. Sarah Parry, Email: Sarah.Parry@ed.ac.uk

Dr. Pablo Schyfter, Email: P.Schyfter@ed.ac.uk

Course secretary: Amy.Wilson@ed.ac.uk

Friday 10-12

Why do science and technology professions have so few women? Why do we think that some technologies are more appropriate for men or for women? How does biology shape the way we understand ourselves as male or female? This class will explore the many, complex relationships between gender, science and technology. We will examine the gendered history of Western science and engineering, study the gender politics of technoscience, and explore how those politics affect us every day.

INTERNET AND SOCIETY (SCIL10056)

Semester 2, honours course (Blocks 3-4)

Dr. James Stewart, Email: j.k.stewart@ed.ac.uk

Course secretary: Emma.Thomson@ed.ac.uk

Tuesday 1600-1800

The Internet, a modern cultural, economic, political and technological phenomenon, plays an important, often controversial, role in contemporary society, touching almost every aspect of our lives. Many dramatic dystopian and utopian claims are being made about the sociotechnical transformations prompted by the Internet's widespread adoption, at micro and macro levels. This course will investigate these claims across different areas of life, technologies and practices, and provide you with tools and conceptual frameworks to analyse and understand the role of the Internet in Society and tackle many contemporary social and political challenges. Using empirical case studies, we will draw on the multidisciplinary area of research referred to as science and technology studies, and insights from sociology, geography, anthropology, philosophy, history, media and communications, and politics. You will gain skills using ethnographic data, survey data, national statistics, and basic knowledge of key technical issues that impact our lives. The course will use extensive group discussions, online tools, mini-projects, and student led sessions to complement traditional lectures and reading.

DATA DESIGN AND SOCIETY (INFR08024)

Semester 2 (Blocks 3-4)

Prof Ewan Klein, Email: Ewan.Klein@ed.ac.uk

Dr. James Stewart, Email: j.k.stewart@ed.ac.uk

2x2 hr sessions TBC (inc Wednesday afternoon)

Data, Design and Society combines interdisciplinary teamwork with practice-based challenges. It is a collaboration by the Schools of Informatics, Social and Political Studies, and Design Informatics. In today's knowledge economy, students need the skills to work together with people across different disciplines, and are likely to be confronted by multi-dimensional challenges with complex social, legal, political and technological dimensions. This learning-by-developing course will introduce you to ways of combining modern tools for data analysis with design-based approaches. It will encourage you to develop innovative ideas and communicate them effectively in different social arenas. The course has a 'data' and 'society' strand and will give you the opportunity to take your learning into the University as a 'Living Lab'. The theme of the course in 2016 is Food and Sustainability. The production, consumption and impact of food is a hot topic in public health, environmental sustainability, culture, Development, and of course, our own everyday life. Course participants will tackle food-related challenges raised by the University, EUSA and students themselves through design, data collection, and engagement.

CONTROVERSIES IN MEDICINE, TECHNOLOGY AND THE ENVIRONMENT (SCSI1004)

Semester 2, honours course (Blocks 3-4)

Dr. Sarah Parry, Email: Sarah.Parry@ed.ac.uk

Dr. Miguel Garcia Sancho Sanchez, Miguel.GSancho@ed.ac.uk

Tuesday 1.30-3.30

Course secretary: Amy.Wilson@ed.ac.uk

Developments in science and technology have often generated fierce public controversy. Contemporary examples include genetically modified organisms, climate change and embryo research. How can we understand such controversies? And what are the implications for science-society relations? Focusing on controversies in science and technology particularly publicly visible controversies - this course introduces methods and concepts from Science and Technology Studies for analysing and understanding controversies in science and technology.

PRODUCT DEVELOPMENT (SSPS11002)

Semester 2, honours course (Blocks 3-4)

Postgrad Level 11, open to visiting and honours students on request

Dr. James Stewart, Email: j.k.stewart@ed.ac.uk

Course secretary: Jade.Birkin@ed.ac.uk

Usually Friday 1600-1800 TBC

In the 21st century the development of innovative new services and products based on new technologies has become fundamental in private, public and non-profit sectors. Businesses try to create profitable products or services, while social innovators look for new ways to foster social inclusion or community, improve education or wellbeing. However, too frequently those developing technologies, and those attempting to create positive economic and social outcomes fail to communicate in the design and implementation of services and products. This course combines the exploration of practices of product development with theoretical and empirical approaches to understanding markets and innovation. It involves understanding the interdisciplinary process that integrates design, business planning and marketing, and the creation and bringing together of human and technical assets. This enables students to develop skills and insights based on research in the field of Technology and Innovation Studies, focusing on the creation of relationships and knowledge about the eventual uses, values and economic relations of technology-based products and services.