Nottingham Trent University Module Specification

	Basic module information	
1	Module Title:	Philosophy of Science and Technology
2	Module Code:	PHIL30608
3	Credit Points:	20
4	Duration:	Year Long
5	School:	Arts and Humanities
6	Campus:	Clifton
7	Date this version first approved to run:	September 2014

8 **Pre, post and co-requisites:**

These are modules that you must have studied previously in order to take this module, or

modules that you must study simultaneously or in a subsequent academic session

Pre, Co, Post Module Code

Pre

PHIL20107

Module Title

Introduction to Contemporary Philosophy

9	Course	es containing tl	he mod	ule	
	<u>Level</u>	Core/Option	<u>Mode</u>	<u>Code</u>	Course Title
			FT	HUMA008	BA (H) Communication & Society and Philosophy
			FT	HUMA016	BA (H) English and Philosophy
			FT	HUMA023	BA (H) European Studies and Philosophy
			FT	HUMA028	BA (H) Film & TV and Philosophy
			FT	HUMA033	BA (H) Global Studies and Philosophy
			FT	HUMA038	BA (H) History and Philosophy
			FT	HUMA042	BA (H) Linguistics and Philosophy
			FT	HUMA045	BA (H) Philosophy and International Relations
			SW	MODL014	BA (H) French and Philosophy
			SW	MODL027	BA (H) German and Philosophy
			SW	MODL039	BA (H) Italian and Philosophy
			SW	MODL058	BA (H) Spanish and Philosophy
			FT	EURX003	European Exchange (Full Year)
			FT	INTX003	International Exchange (Full Year)

10 Overview and aims

This module introduces you to the core ideas and arguments that have helped to shape contemporary philosophy of science and technology. Particular emphasis is given to scientific claims to truth through a discussion of the philosophical significance of experimentation and large-scale scientific research.

The focus, here, will be largely on the history of science with special attention paid to the philosophical significance of Darwinian and Einsteinian modes of scientific thought. The module will also encourage you to reflect upon the precise nature of the relationship between science and technology, and to appreciate why the future of modern societies is typically conceived/imagined as a 'technological future'.

The overall aim of the module is to get you to question the philosophical meaning of modern science and technology through a discussion of the nature and wider significance of scientific practices and technological innovations. At the end of the module, you should possess a critical awareness of the - increasingly prominent - role played by science and technology in all forms of contemporary life and appreciate the way in which 'scientific discoveries' and 'technological innovations' pose profound challenges to our received ideas of reality, property, power, identity and the nature of the 'good life'.

11 Module content

The module will consist of two parts – Part A will be dedicated to issues in contemporary philosophy of science; Part B, dedicated to issues in contemporary philosophy of technology.

Part A

The rise of empiricism as a theory of knowledge. The problem of induction and the question of the 'rationality of science'. The Kuhn-Popper debate and the issue of whether science can be understood as a 'rational activity'. The nature of experimentation and the issue of 'representation' vs. 'intervention'. The idea of the 'scientific image of the world' and its relationship to everyday life.

Critical theories of science. The debate between 'creationists' and 'Darwinians'. Science as discourse and as practice. Postmodern readings of science and the Sokal affair.

Part B

The technological determinism debate. Orthodox Marxism vs. Social Constructionism. The distinction between tools, instruments and technologies. The idea of 'convivial technologies' and the modernist idea of 'design for living'. Phenomenological approaches to the technology – 'affordances' and the 'ready to hand'. Social constructivist case studies of bicycles, electric lighting and the electrification of society.

Existentialist, ecological and religious critiques of technology. Marx, technology and nature of work in modern organisations. Foucauldian studies of workplace surveillance and CCTV. Technology as a 'form of life'. Vitalism, ethics and biotechnology.

12 Indicative reading

Benton, T and Craib, I. (2011) The Philosophical Foundations of Social

Thought Basingstoke: Palgrave Macmillan

- Hayles, K. (2002) How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics. Chicago: Chicago University Press.
 Fukuyama, F. (2003) Our Posthuman Future London: Profile Books
 Kirkpatrick, G. (2008) Technology and Social Power Basingstoke: Palgrave Macmillan
 - Kuhn, T. (1962) The Structure of Scientific Revolutions Chicago: Chicago University Press
 - Meyers, R.G. (2006) Understanding Empiricism

13	Learning outcomes Learning outcomes describe what you should know and be able to do by the end of the module
	Knowledge and understanding. After studying this module you should be able to:
	 Understand the way science and technology must be conceived as 'historical phenomena'
	• Reflectively appreciate the ethical and political issues surrounding modern
	science technology.
	• Possess a critical appreciation of the way in which science and technology
	stake claims of 'truth', 'knowledge' and 'rationality'
	Apply critically philosophical terminology.
	Explain how and why recent technological innovations challenge established
	conceptions of subjectivity and society.
	• Understand the key arguments of the major philosophers from the western
	philosophical canon, encountered in their own writings and an awareness of
	important areas of interpretative controversy concerning the major
	philosophers
	Skills, qualities and attributes. After studying this module you should be able to:

	•	Use your powers of interpretation, analysis and evaluation in order address
		a variety of complex problems
	•	Manage your time and work offectively and officiently and think imaginatively
	•	Manage your time and work enectively and enciently and think imaginatively
l		and creatively
l	•	Identify the key assumptions underlying contemporary philosophical and
l		other intellectual debates
	•	Interpret texts drawn from a variety of ages and/or traditions with sensitivity
		to context and evaluate the success of standard arguments
		Description to forellight with openialized philosophical terminalism.
	•	Demonstrate familiarity with specialised philosophical terminology
	•	Demonstrate how generalisations can be supported or weakened by detailed
		discussion
14	Teach	ing and learning
	Range	of modes of direct contact
	This ind	licates the range of direct contact teaching and learning methods used on this module,

e.g. lectures, seminars

The module will normally be delivered via a bi-weekly 2 hour interactive lecture and a weekly seminar.

Further support and tutorial guidance will be available on the basis of the tutor's 'office hours' drop in system.

Total contact hours:

39

Range of other learning methods

This indicates the range of other teaching and learning methods used on this module, e.g.

directed reading, research

You will also be asked to read around your subject matter. To help you in this task, two reading weeks will be set aside, one per term, and you will be provided with booklets of readings and study questions to read during these weeks. The study questions will then be discussed in subsequent seminars and tutorials.

Total non-contact hours:

15	Assessm	ssessment methods		
	This indic	ates the type	and weightin	g of assessment elements in the module
	<u>Element</u> <u>number</u>	<u>Weighting</u>	<u>Type</u>	Description
	1	100%	Coursework	4,000 Word Essay
	Diagnost	tic/formative	e assessmei	nt
	This indica	tes if there are	any assessmei	nts that do not contribute directly to the final module
	mark			
	Participat	ion and engag	nement in ser	minar work and workshops on a group and an
	individual	basis		
	Further i	nformation	on assessm	ent
	This sectio	n provides furth	ner information	on the module's assessment where appropriate
	Docume	nt managem	ent	
16	Module T	itle:		Philosophy of Science and Technology
17	Module C	ode:		PHIL30608
18	Subject (JACS) Code		V500
19	Cost Cent	tre		141
20	School:			ААН

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17	Module Code:	PHIL30608	
18	Subject (JACS) Code	V500	
19	Cost Centre	141	
20	School:	ААН	
21	Academic Team	ECM	
22	Campus	2 (Clifton)	
23	Other institutions providing teaching	Please complete in box 23 a-d - if applicable	
		Institution	%
23a	Other UK Higher Education or Further Education Institution- Please name Percentage not taught by NTU		
23b	Other public organisation in the UK- Percentage not taught by NTU		
23c	Other private organisation in the UK - Percentage not taught by NTU		

- 23d Any other Non-UK organisation -Percentage not taught by NTU
- 24 Date this version was formally approved by SASQC/DAG: