PGR Course unit outline 2022/23			
Unit code:	BMAN 80810		
Title:	Advanced Topics in Science, Technology and Innovation Policy		
Credit value:	15		
Semester:	Semester 1 and Semester 2 (both)		
Course Coordinator contact details:	Cornelia Lawson  AMBS 8.022; x5-7253; Email: cornelia.lawson@manchester.ac.uk  Office Hours: by appointment  Philip Shapira  AMBS 9.004; 5x7376; pshapira@manchester.ac.uk  Office Hours: Tue 09h-11h or by appointment		
Other staff involved contact details:	N/A		
Pre-requisites	None		
Co-requisites			
Dependent course units			
Restrictions			

# Course unit overview

Introduces and explores advanced topics in science, technology and innovation policy

## **Aims**

This module introduces and explores advanced topics in science, technology and innovation policy. The module is targeted to post-graduate students with research interests related to science, technology, and innovation policy.

## **Objectives (Learning outcomes)**

On completion of this unit successful students will:

- Enhance their understanding of key and emerging topics in science, technology and innovation policy
- Become conversant with current and classical literature sources on these topics.
- Understand the conceptual underpinnings, and contrasting perspectives, that influence debates on these topics.
- Realise the interlinked role of theories and systems in framing science, technology and innovation policies.

The module will strengthen key skills in analysing scholarly and policy materials, critiquing research designs and literature, and formulating and presenting independent perspectives.

## Syllabus content

The module engages researchers in science, technology and innovation policy; domains of science, technology and innovation policy are examined; with attention to the evolution of theory and literature and relationships with policy from an interdisciplinary perspective.

The seminars will each focus on a particular topic in science, technology, and innovation policy, with prior targeted reading, and with review and discussion. Key authors and experts will be invited to present at these seminars. Examples of topics to be discussed include: The aims of science policy; technology, sustainability, and inclusive development; assessing innovation policy impacts; the new revolution in production; and policies for emerging technologies. Individual readings will be assigned ahead of each course session, with the expectation that students will have read and be prepared to discuss these readings.

In addition to the seminars, individual tutorial meetings will be arranged with each registered student in each semester to discuss their own research, linkages with seminar topics and methods, readings and assignments.

The capstone discussion will review debates and learning. Students will present and discuss their own perspectives on self-identified topics (typically related to their research project) in science, technology, and innovation policy, with reference to key literature sources and consideration of the linkages between theory and policy.

All course readings and other materials will be available online.

Methods of delivery	
Lectures	
Seminar/Tutorial/Workshop/Lab Hours	30 hours
Independent Study	120 hours
Total Study Hours	150 hours

# Reading List

#### Pre Reading:

- Martin, BR. 2012. The evolution of science policy and innovation studies. *Research Policy* 41.7: 1219-1239. https://doi.org/10.1016/j.respol.2012.03.012
- Kuhlmann, S., and Rip, A. 2019. Next generation science policy and Grand Challenges. In: Simon, D., Kuhlmann, S., Stamm, J., and Canzler, W. (eds) Handbook on Science and Public Policy. Edward Elgar. https://doi.org/10.4337/9781784715946.00009
- Edler, J., Gök, A., Cunningham, P., and Shapira, P. 2016. Making Sense of Innovation Policy. In: Edler, J., Cunningham, P., Gök, A, and Shapira, P. (eds). Handbook of Innovation Policy Impact. Edward Elgar. <a href="https://doi.org/10.4337/9781784711856.00008">https://doi.org/10.4337/9781784711856.00008</a>

Core Text: Individual readings will be assigned ahead of each course session.

**Supplementary Text**: Multiple readings from prior seminars are available at this <u>link</u>

Assessment			
Mode of Assessment	Length required	Weighting within unit	
Outline of science, technology, and innovation policy topic review – identify topic, with abstract, and three	500 words	Formative	

key literature contributions. (Due 20 January 2023, 10h00 UK		
Science, technology, and innovation policy topic review – on a selected topic, compare and critique three key references and link review to discussion of conceptual and policy implications. Submit through Blackboard/Turnitin. Review to be written as academic text. (Due 12 May 2023, 10h00 UK time).	2500-4000 words	80%
Individual presentation of topic at capstone meeting (15 May 2023).		20%
<b>Resits</b> : Will by assessed by satisfactory completion of coursework.		

### Feedback methods

Students will receive feedback through a series of methods, comprising:

- Written and/or verbal comments on non-assessed (formative) and assessed coursework.
- Informal advice and discussion during course meetings and following presentations.
- Responses to student emails and questions.
- Individual feedback in meetings with instructors (e.g. in office hours or by appointment).
- Specific course related feedback discussion in course sessions.

Feedback for all assessed coursework and formative assessment will be provided within 15 working days of the submission deadline. A working day is defined as Monday to Friday, not including bank holidays and excluding student vacation periods and University examination periods. For submission dates, see section on Assessment.

In addition to the course unit evaluation questionnaire, students are encouraged to give feedback through emails and conversations at any time, and using the online questionnaire near the end of the semester

## Social Responsibility

AMBS aims for our graduates to develop not only academic and professional skills, but also a sense of social, ethical and environmental responsibility towards the societies of which they are part. Please give details of how social responsibility is addressed in your course unit by highlighting any knowledge or skills that support students' social and ethical understanding and conduct.

Awareness of the concepts and policy practices gained through this course will help students in assessing how science, technology and innovation addresses, and can better address, societal, human, environmental, and economic needs.

Please indicate by ticking the box(es) below, wi	hich specific aspect of SR your module is linked to:			
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X A UN SDGs*	Environmental Sustainability			
<del></del>	<u> </u>			
Other (please specify)				
SDG 9 Industry, Innovation and Infrastructure				
SDG 8 Decent Work and Economic Growth				
SDG 12 Responsible Production and Consumption				
SDG 10 Reduced Inequalities				
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For additional support on how embed SR into your module, please review the resources here: <a href="https://documents.manchester.ac.uk/DocuInfo.aspx?DocID=51837">https://documents.manchester.ac.uk/DocuInfo.aspx?DocID=47017</a>
<a href="https://documents.manchester.ac.uk/DocuInfo.aspx?DocID=47017">https://documents.manchester.ac.uk/DocuInfo.aspx?DocID=47017</a>

<sup>\*</sup> If a UN SDG, please note which one by reviewing the list <u>here</u>