

## COURSE MODULE OUTLINE

### (1) General Information

<b>SCHOOL</b>	Human Sciences		
<b>PROGRAM COURSE</b>	Science Communication		
<b>LEVEL OF STUDY</b>	M.Sc.		
<b>COURSE UNIT CODE</b>	<b>EEP33</b>	<b>Semester</b>	<b>3rd</b>
<b>COURSE TITLE</b>	Technoscientific culture and contemporary problems		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the totalcredits</i>		<b>Workload for students</b>	<b>CREDITS</b>
Workload for students: 21-23 hours x 13 weeks		<b>280-300</b>	<b>10 ECTS</b>
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
<b>COURSE TYPE</b> Compulsory, Optional, Optional mandatory	Compulsory		
<b>PREREQUISITE COURSES:</b>	No prerequisite courses		
<b>LANGUAGE OF INSTRUCTION AND EXAMS:</b>	Greek		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>	<a href="https://www.eap.gr/en/science-communication/topics/#e33">https://www.eap.gr/en/science-communication/topics/#e33</a>  Each module has its own space in the Learning Management System of EAP ( <a href="https://courses.eap.gr/login/index.php">https://courses.eap.gr/login/index.php</a> ), with controlled access (use of code) for students and teaching staff.		

## (2) LEARNING OUTCOMES

### **Learning Outcomes**

*The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:*

#### **APPENDIX A**

- Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.
- Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and

#### **APPENDIX B**

- Guidelines for writing Learning Outcomes

Upon successful completion of the EEP33, the student is expected to be able to describe and discuss:

- Recognize the social and cultural construction of the concept of risk-taking
- Identify the social dimensions and effects of new technoscientific innovations
- Use analytical tools from the social sciences to analyze and assess risk associated with science and technology
- Identify and describe the bioethical issues that arise inherently with the establishment of new scientific disciplines and technological innovations
- Define the conditions for establishing the "responsible innovation" framework

### **General Competences**

*Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?*

<i>Search for, analysis and synthesis of data and information by the use of appropriate technologies,</i>	<i>Project planning and management</i>
<i>Adapting to new situations</i>	<i>Respect for diversity and multiculturalism</i>
<i>Decision-making</i>	<i>Environmental awareness</i>
<i>Individual/Independent work</i>	<i>Social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Group/Team work</i>	<i>Critical thinking</i>
<i>Working in an international environment</i>	<i>Development of free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment (Other.....citizenship, spiritual freedom, social</i>	<i>.....</i>
<i>Introduction of innovative research</i>	<i>awareness, altruism etc.) .....</i>

- Adaptation to new situations
- Decision making
- Autonomous work
- Teamwork
- Work in an international environment
- Work in an interdisciplinary environment
- Generation of new research ideas
- Project planning and management
- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrate social, professional and ethical responsibility and sensitivity to gender issues
- Exercise criticism and self-criticism
- Promotion of free, creative and inductive thinking

## (3) COURSE CONTENT

- Science, Technology and Risk
- Biotechnology, Public Health and Governance
- Bioethical issues
- Science, Technology and Environment
- Natural disasters and technological accidents

#### (4) TEACHING METHODS--ASSESSMENT

<b>MODES OF DELIVERY</b> <i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i>	Distance learning, complemented by: <ul style="list-style-type: none"> <li>• 3 Group Feedback Meetings</li> <li>• Personal communication and feedback, when asked for by students.</li> </ul>	
	Remote meetings tools (webex) and presentation software (e.g., PowerPoint). Additionally, students use office automation tools, web browsers, and e-readers for digital books.	
<b>COURSE DESIGN</b> <i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.</i>  <i>The study hours for each learning activity as well as the hours of selfdirected study are given following the principles of the ECTS.</i>	<b>Activity/Method</b>	<b>Semester workload</b>
	Personal Study (12-13 hours x 13 educational weeks)	<b>149-169</b>
	2 activities (2 x 30 hours)	<b>60</b>
	3 Group Feedback Meetings (3 x 4 hours)	<b>12</b>
	1 semester essay	<b>54</b>
	Written exams	<b>5</b>
	<b>Total</b>	<b>280-300</b>

<p><b>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</b></p> <p><i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	<p>Elaboration of written assignments during the academic semester with a weighting factor in the formation of the final grade by 40%. Final written exams, the grade of which participates in forming the final grade by 60%. For further information go to the H.O.U. Study Guide: <a href="https://www.eap.gr/wp-content/uploads/2022/03/kanonismos-spoudwn-isxys-apo-to-didaktiko-etos-2022-2023.pdf">https://www.eap.gr/wp-content/uploads/2022/03/kanonismos-spoudwn-isxys-apo-to-didaktiko-etos-2022-2023.pdf</a></p>
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## (5) SUGGESTED BIBLIOGRAPHY:

- Abraham, J., Reed, T. (2002), “Progress, Innovation and Regulatory Science in Drug Development: The Politics of International Standard-setting”, *Social Studies of Science*, 32(3): 337-69.
- Abraham, J. and Davis, C. (2009), “Drug Evaluation and the Permissive Principle: Continuities and Contradictions between Standards and Practices in Antidepressant Regulation”, *Social Studies of Science*, 39(4): 569-598.
  - Biagioli, M. (1999), *Science Reade*, New York: Routledge.
  - Bonneuil, C., Levidow, L. (2012), “How does the World Trade Organization know? The mobilization and staging of scientific expertise in the GMO trade dispute”, *Social Studies of Science*, 42(1): 75-100.
  - Daemmrich, A., and Krücken, G. (2000), “Risk versus Risk: Tragic Choices in Drug Regulation in the United States and Germany”, *Science as Culture* 9: 505-534.
  - Grunwald, Armin (2011), *Responsible Innovation: Bringing together Technology Assessment, Applied Ethics, and STS research*, *Enterprise and Work Innovation Studies*, 7, IET: 9 - 31.
  - Grunwald, A. (2011b): “Synthetic Biology: moral, epistemic and political dimensions of responsibility” στο Paslack, R., Ach, J.S., Luettenberg, B., Weltring, K. (eds.), *Proceed with caution? Concept and application of the Precautionary Principle in Nanobiotechnology*, Münster: LIT Verlag.
  - Hedgecoe, A. (2016), “Scandals, Ethics, and Regulatory Change in Biomedical Research”, *Science, Technology, & Human Values*, 42(4): 577-599.
  - Hoeyer, K., “Regulatory Anatomy in Transplant Medicine”, *Science, Technology, & Human Values*, 40(4): 516 – 538.

- Jacob, M.A. (2015), “Misconduct hunting: research integrity via law, science and technology” στο Cloatre, E. and Pickersgill, M. (eds.) Knowledge, Technology and Law, Routledge.
- Jasanoff, S., Markle G.E., Petersen J.C., Pinch T. (1995), Handbook of Science and Technology Studies, London: Sage.
- Jasanoff, S. (2001), “Ordering Life: Law and the Normalization of Biotechnology”, Politeia, vol. XVII, No. 62: 34-50.
- Jasanoff, S. (2002), “Science and the Statistical Victim: Modernizing Knowledge in Breast Implant Litigation”, Social Studies of Science, 32(1): 37-70.
- Levidow, L., Murphy, J. & Carr, S. (2007) “Recasting ‘Substantial Equivalence’: Transatlantic Governance of GM Food”, Science, Technology, & Human Values 32: 26-64.
- Lezaun, J. (2003), “Subjects of Knowledge: Epistemologies of the Consumer in the GM Food Debate” στο Stehr, N. (ed.), The Governance of Knowledge, New Brunswick, N.J.: Transaction Publishers.
- Lezaun, J. (2004), “Genetically Modified Foods and Consumer Mobilization in the UK”, Technikfolgenabschätzung Theorie und Praxis 13: 49-56.
- Rip, A., Misa, T. and Schot, J. (eds.) (1995): Managing Technology in Society: the approach of constructive technology assessment, London, New York: Pinter Publishers.
- Raman, S. and Tutton, R., (2013), “Life, Science, and Biopower”, Science, Technology, & Human Values, 35(5): 711-734.
- Suryanarayanan, S., Kleinman, D.L. (2013), “Be(e)coming experts: The controversy over insecticides in the honey bee colony collapse disorder”, Social Studies of Science, 43(2): 215-240.
- Winickoff, D.E., Mondou, M. (2016), “The problem of epistemic jurisdiction in global governance: The case of sustainability standards for biofuels”, Social Studies of Science, 47(1): 7-32.
- Μπάλλιας, Γ. (2009), Περιβαλλοντικοί κίνδυνοι: Διαπλοκή Επιστήμης, Δικαίου και Πολιτικής, Αθήνα-Κομοτηνή: εκδόσεις Αντ. Ν. Σάκουλα.