EUROPEAN UNIVERSITY

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EUROPEAN UNIVERSITY FOR CUSTOMISED EDUCATION

STUDY GUIDE

UN/DISCIPLINING KNOWLEDGE: TECHNOLOGY, SCIENCE, AND SOCIETY IN TRANSFORMATION

Organised by

Brandenburg University of Technology Cottbus-Senftenberg

1. IDENTIFYING DATA.	
· Course Name.	Un/disciplining Knowledge: Technology, Science, and Society in Transformation
· Coordinating University.	Brandenburg University of Technology Cottbus-Senftenberg
· Partner Universities Involved.	
· Course Field(s).	Science and Technology Studies; Problem-based Learning; Epistemology; Knowledge production; Anthropology of Expertise; History and Philosophy of Technology
· Related Study Programme.	Environmental and Resource Management (ERM) (Bachelor and Master level) World Heritage Studies (WHS) (Master level) Transformation Studies (TS) (Master Level)
· ISCED Code.	0312 Political sciences and civics; 0314 Sociology and cultural studies 0222 History and archaeology 0417 Work skills
· SDG.	SDG 4, SDG 8, SDG 17 (list available here)
· Study Level.	Bachelor (B) and Master (M) Staff and PhD students welcome
· EUNICE Key Competencies	[Indicate the Key Competencies offered by the course.] • Green – strongly • Orange - moderately • Red – partially • Blank cell - not at all

Problem solving	strongly
Teamworking	strongly
Communication	strongly
Self-management	strongly

	Cognitive flexibility	strongly
	Digital competence	partially
	Technical competence	
	Global intercultural competence	moderately

· Number of ECTS credits allocated.	6 ECTS
· Mode of Delivery.	live, synchronous online course, individual on site fieldwork (local) where necessary
· Language of Instruction.	Lectures and class discussions held in English; group presentations held in English; individual written examination work accepted in English or German with English translation
· Course Dates.	October – February; with lectures held October - December, and written online final examination due in February.
· Precise Schedule of the Lectures.	The course runs bi-weekly, with synchronous 4.5 to 6 hour online lecture and workshop.
· Key Words.	Case work and Science & Technology Studies (STS); history, philosophy and anthropology of knowledge; problem-based learning; transdisciplinarity; multidisciplinarity; interdisciplinarity; undisciplined disciplines; knowledge systems; pragmatics; object knowledge; teamwork
· Catchy Phrase.	The course Un/Disciplining Knowledge helps to get a “better sense of what situated knowledge, epistemic power, and collaborative positionality mean, not just from reading about them, but from practice (sic) them in challenging situations.”

· Prerequisites and co-requisites.	- No specific requirements - available for Bachelor and Master level students - English at minimum level B2
· Number of EUNICE students that can attend the Course.	Total number is 20 (2 from each participating university)
· Course inscription procedure(s).	Eunice platform

2. CONTACT DETAILS.	
· Department.	Chair of Technoscience Studies
· Name of Lecturer.	Dr. Lora Koycheva, PhD;
· E-mail.	koycheva@b-tu.de
· Other Lecturers.	Prof.Dr. Astrid Schwarz

3. COURSE CONTENT.

Contemporary society and global governance are significantly shaped by modern projects of disciplining knowledge. The disciplining of knowledge shaped sciences and technologies. However, recent crises have led to significant transformations of the organisation of science, technology and epistemic practices and of the relations between science, politics and the economy. Intersecting with this kind of un/disciplining of knowledge, the imaginary of knowledge as a monolithic object has been questioned increasingly. Concepts and institutional structures have been developed to practice other modes of knowing in transdisciplinary or interdisciplinary projects, and to focus more on scientific practices and experimental settings. All of this results in analyzing knowledge in the plural – knowledges. This course traces the transformation of knowledge through hands-on problem-based learning approach. These problems are analyzed to introduce and discuss critical theories and issues of empirical knowledges, un/disciplining and their intersections with science, technology and society. This course explores how scientific knowledge and technological systems are produced, stabilized, contested, and transformed within social contexts. Through object-based, problem-based learning (PBL), students will collaboratively investigate real-world cases where science, technology, and society intersect, and critically reflect on the processes of knowledge-making.

4. LEARNING OUTCOMES.

After the module, the students will:

- Analyze the social, cultural, political, and ethical dimensions of science and technology.
- Explain major concepts and frameworks in STS.
- Evaluate knowledge production practices through creating and presenting their own case studies.
- Work collaboratively to propose solutions to complex STS-related problems.
- Critically reflect on one´s own knowledge formation practices – within disciplinary or + disciplinary settings

5. OBJECTIVES.

- To complicate students' common-sense views of “knowledge”, “expertise”, “disciplinary” and “inter/trans/multi-disciplinary” work
- To facilitate their understanding of complex issues relating to “knowledge production” and concepts like “robust knowledge”
- To foster reflection on the complexities and hidden operative assumptions surrounding boundary creating and boundary crossing in knowledge production.
- To enable students to combine critical thinking about "knowledge" with the ability to collaborate and act with reciprocity, engaging constructively with texts and peers while creating their own problem-based, object-mediated case studies.
- To reflect on how they act in teamwork

6. COURSE ORGANISATION.

UNITS

1.	Topic: Intro to course and instructor; individual student introductions and working groups formation
2.	Topic: What is Knowledge? What is a discipline? Who gets to decide? What forms does it take? In what particular sites and contexts?
3.	Topic: STS as an example of *disciplinarity; Ethnographic methods bootcamp
4.	Topic: The Social Construction of Scientific Knowledge
5.	Topic: Centering the Margins: Feminist STS, Indigenous STS, Postcolonial STS; Citizen Science

LEARNING RESOURCES AND TOOLS.

Lecture slides, academic texts; Moodle; others, as required per group work

PLANNED LEARNING ACTIVITIES AND TEACHING METHODS.

Lectures, group work, seminars, group (local) fieldwork exercise

7. ASSESSMENT METHODS, CRITERIA AND PERIOD.

The course is assessed via short reading response pieces; group presentation showing group work; and individual reflection portfolio on the group work and lessons learned through the PBL experience

The course is graded on the German scale ranging from: 1 excellent to 5 insufficient.

OBSERVATIONS.

8. BIBLIOGRAPHY AND TEACHING MATERIALS.

- Gibbons, M. Science's new social contract with society. *Nature* 402**,** C81–C84 (1999). https://doi.org/10.1038/35011576
- Mittelstrass, J. (2018). The order of knowledge: From disciplinarity to transdisciplinarity and back. *European Review*, *26*(S2), S68-S75.
- Schaffer, S. (2013). 2: How disciplines look. Interdisciplinarity: Reconfigurations of the Social and Natural Sciences. Routledge, Abingdon, Oxon, 57-81.
- Turner, S. (2017). Knowledge formations: An analytic framework. Chap. 2 in *The Oxford handbook of interdisciplinarity*, edited by Frodeman, R., et al., 9–20. Oxford: Oxford University Press.
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. Social studies of science, 19(3), 387-420.
- Callon, M. (1984). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. The sociological review, 32(1_suppl), 196-233.
- Latour, B. (1999). Circulating reference: Sampling the soil in the Amazon forest. Pandora's hope: Essays on the reality of science studies, 24, 36.
- Watson-Verran, H., & Turnbull, D. (1995). Science and other indigenous knowledge systems. Chap. 6 in *Handbook of Science and Technology Studies*, edited by Jasanoff, S. et al., 115–39. Thousand Oaks, London, New Delhi: Sage Publications in Cooperation with the Society for Social Studies of Science
- Harraway – selection tbd
- Graham, H. C. (2016). The 'co'in co-production: Museums, community participation and Science and Technology Studies. Science Museum Group Journal, 5.
- Law, J., & Lin, W. Y. (2017). Provincializing STS: Postcoloniality, symmetry, and method. East asian science, technology and society: an international journal, 11(2), 211-227.