

# MA Program Science and Technology Studies. Economies, Governance, Life

## Module Handbook

<b>M1</b> Basic module	<b>Theoretical Intersections</b>	<b>Compulsory module</b>	<b>14 CP (total) = 420 h</b>				<b>6 SWS</b>	
			<b>Classroom study</b> 6 SWS / 90 h	<b>Independent study</b> 330 h				
<b>Module description</b>								
	<p>The module introduces students to the basic concepts and most important approaches in Science and Technology Studies (STS). The title “Theoretical Intersections” refers to the lively and productive conversation that involves the three contributing disciplines of Cultural Anthropology, Sociology and Human Geography. The seminar “Introduction to STS” acquaints students with the history and the interdisciplinary context of Science and Technology Studies, tracing theoretical shifts and taking up current debates. Key concepts like agencement, distributed agency, epistemic communities, knowledges, embodiment and materiality are introduced. In the seminar “Epistemic Practices”, selected reading from well-known texts by prominent STS authors will introduce students to epistemological issues and to the status of materiality and technology in knowledge production. The third seminar of the module, “Global Economies” focuses on the various performative translations of economic knowledges within the field of ongoing economic globalization. It deals with global flows and the governance and coordination of value chains and networks.</p>							
<b>Learning goals</b>								
	<p>The module develops students’ understanding of key questions, concepts and approaches in STS. It enables students to critically examine social, institutional, ethical, cultural and political issues related to the emergence and impact of global processes and new technologies. Students will be able to appreciate diverse debates and theoretical programs in STS, as well as in the contributing disciplines of Cultural Anthropology, Human Geography and Sociology, in order to be able to explore their links to specific research programs.</p>							
<b>Admission requirements for the module or individual courses of the module</b>								
	None							
<b>Recommended prerequisites</b>								
	None							
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module either in winter or summer semester.					
<b>Duration of the module</b>			Two semesters					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			In each course of the module, an ungraded performance is required for course assessment.					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Term paper of approximately 4000 words					
		LV form	SWS	CP	Semester			
					1	2	3	4
	1.1	Introduction to STS	S	2	3	X		
	1.2	Epistemic Practices	S	2	3	X		
	1.3	Global Economies	S	2	3		X	
		Module examination	MP		5			
		Total		6	14			

M2 Exemplary field	Technologies of Governance	Optional module	14 CP (total) = 420 h				6 SWS	
			Classroom study 6 SWS / 90 h	Independent study 330 h				
<b>Module description</b>								
<p>Taking its cue from the assertion that infrastructure designates “specific institutional, material, or social conditions through which the functioning of a certain technology, ethical regime, form of regulation, or mode of communication is either enabled or impeded” (Aihwa Ong and Stephen Collier 2003), the module will look at governance and its technological dimension. The changing spaces of global transactions, of production networks, financial flows and distributed expertise, augmented by pervasive digital technology, pose new challenges for coordination and governance. The introduction of standards and other technologies of control and surveillance, among them new tracking modes and dataveillance, not only facilitates the cross-border flow of capital, goods, ideas, and knowledge workers, but also establishes truth claims, integrating populations and spaces into new types of topological frameworks and digital data-human assemblages. The module will both engage with new (digital) materialities and offer insights into the performativity of emerging agencements: distributed agencies of economic governance, decision making bodies, epistemic communities, and algorithmic logics that affect much of the regulation of the global economy. Political power beyond the state and the observation that non-state actors such as transnational organizations have ‘state effects’ will be of interest, as are metrological regimes, techniques of management, data practices, and (digitized) practices of tracking, surveillance and alignment.</p>								
<b>Learning goals</b>								
<p>This module aims to develop students’ understanding of key questions, concepts and approaches in the study of infrastructure, and enables students to critically examine social, institutional, technological, cultural and political issues related to the emergence of transnational governance and the political impact of technologies and standards. In this module, students acquire an overview of the interdisciplinary fields of infrastructure studies, and have a good grasp of the state-of-the-art theoretical concepts in human geography, economic sociology and economic anthropology. They learn to apply this knowledge to current challenges of securitization and of ‘governing by numbers’.</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
None								
<b>Assignment of the module (degree program / faculty)</b>					MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)			
<b>Applicability of the module for other programs</b>					-			
<b>Frequency of the offer</b>					Students can start the module either in winter or summer semester.			
<b>Duration of the module</b>					One or two semesters			
<b>Module supervisor</b>					Dr. Ilyes			
<b>Ungraded performance required for course assessment</b>					In each course of the module, an ungraded performance is required for course assessment.			
<b>Mode of teaching / studying</b>					Classroom teaching			
<b>Language of instruction / examination language</b>					English			
<b>Module examination</b>					Term paper of approximately 4000 words			
		LV form	SWS	CP	Semester			
					1	2	3	4
	2.1.1 WPM A Seminar 1	S	2	3	X			
	2.1.2 WPM A Seminar 2	S	2	3	X			
	2.1.3 WPM A Seminar 3	S	2	3		X		
	Module examination	MP		5				
	Total		6	14				

M3 Exemplary field	Markets and Cultures	Optional module	14 CP (total) = 420 h				6 SWS	
			Classroom study 6 SWS / 90 h	Independent study 330 h				
<b>Module description</b>								
<p>Markets are heterogeneous arrangements of human and non-human actors. Processes of marketization as the establishment and modification of these arrangements turn goods into tradable commodities and set the framework for the determination of prices. Normative and moral considerations do not only limit the reach of markets but are an integral part of most market practices and stabilize markets when prices are contested and have to be justified. In this general sense markets as such are always ‚cultural artefacts‘. Yet at the same time cultural artefacts as objects and performances attributed to the sphere of arts and culture are increasingly marketized. New frameworks of heritage preservation, tourism destination management, real estate development, and the inclusion of historically formed man-environment relations in new regimes of value are prominent examples. They involve new intellectual property regulations, the privatization of commons and new types of cultural resource management, which are monitored by transnational policy makers and governance agencies, maintaining and deepening existing inequalities. Global circuits of exchange, digitization, systems of administration and governance as well as new regimes of ethics are implicated in the commercialization of culture which is often termed ‚cultural economy‘ generating, among others, virtual artefacts and digital heritage. The emergence of Digital Humanities as a field that increasingly links cultural institutions, knowledge production and new audiences outside of the academy will also be topical in this module.</p>								
<b>Learning goals</b>								
<p>This module aims to develop students' understanding of key questions, concepts and approaches in the study of markets and economies, and enables students to critically examine social, institutional, technological, cultural and political issues related to the emergence and impact of economic globalization. In this module, students acquire an overview of the interdisciplinary fields of marketization studies and cultural economies, and have a good grasp of the state-of-the-art theoretical concepts in human geography, economic sociology and economic anthropology. They learn to apply this knowledge to current challenges of globalization.</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
None								
<b>Assignment of the module (degree program / faculty)</b>					MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)			
<b>Applicability of the module for other programs</b>					-			
<b>Frequency of the offer</b>					Students can start the module either in winter or summer semester.			
<b>Duration of the module</b>					One or two semesters			
<b>Module supervisor</b>					Academic program director (Prof. Welz)			
<b>Ungraded performance required for course assessment</b>					In each course of the module, an ungraded performance is required for course assessment.			
<b>Mode of teaching / studying</b>					Classroom teaching			
<b>Language of instruction / examination language</b>					English			
<b>Module examination</b>					Term paper of approximately 4000 words			
		LV form	SWS	CP	Semester			
					1	2	3	4
	3.1.1 WPM B Seminar 1	S	2	3	X			
	3.1.2 WPM B Seminar 2	S	2	3	X			
	3.1.3 WPM B Seminar 3	S	2	3		X		
	Module examination	MP		5				
	Total		6	14				

<b>M4</b> Exemplary field	Economies of Life	Optional module	14 CP (total) = 420 h				6 SWS	
			Classroom study 6 SWS / 90 h	Independent study 330 h				
<b>Module description</b>								
<p>The growing importance of bioscientific knowledges and biotechnological practices generates new regimes of value and visions of economic development and growth. Biomedical research, clinical work, human tissue, genetic information, digital technologies and epidemiological data have acquired economic salience, and the emerging bioeconomies encompass, among others, risk assessment, prevention regimes, and biobanking structures. The global organization of 'biocapital' is intricately entangled with moral economies that are also linked to wider political, ecological, scientific and legal frameworks. While blood, organs and human tissue have often been advertised as 'gifts' that are unselfishly donated to help a needy third party, biomaterials are now increasingly discussed and mobilized as commodities that can be sold and traded for profit. Biosocialities and new forms of biological citizenship but also instances of social resistance are indicative of how political economies of life shape and change notions of 'the social'. Ultimately, new and emergent forms of life point to shifts in how nature and culture are thought to relate to each other, and come to the fore in environmental policies, biodiversity management or the financialization of ecosystem services.</p>								
<b>Learning goals</b>								
<p>The students will acquire advanced knowledge of different dimensions of the economies of life. They will be able to critically engage with the diverse understandings of 'biocapital' and 'bioeconomy'. The students will be acquainted with empirical investigations and theoretical accounts on how economies of life intersect with moral economies and biomedical reasoning, and how they shape and change notions of 'the social'. They will be able to critically reflect the commercialization of biological processes and substances and discuss how biological concepts inform visions of economic development and growth (and vice versa).</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
None								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			-					
<b>Frequency of the offer</b>			Students can start the module either in winter or summer semester.					
<b>Duration of the module</b>			One or two semesters					
<b>Module supervisor</b>			Prof. Wolf					
<b>Ungraded performance required for course assessment</b>			In each course of the module, an ungraded performance is required for course assessment.					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Term paper of approximately 4000 words					
		LV form	SWS	CP	Semester			
					1	2	3	4
	4.1.1 WPM C Seminar	S	2	3	X			
	4.1.2 WPM C Seminar	S	2	3	X			
	4.1.3 WPM C Seminar	S	2	3		X		
	Module examination	MP		5				
	Total		6	14				

<b>M 5 Research Curriculum 1<sup>st</sup> semester</b>	<b>Introduction to Research Methods</b>	<b>Compulsory module</b>	<b>14 CP (total) = 420 h</b>				<b>4 SWS</b>	
			<b>Classroom study 4 SWS / 60 h</b>	<b>Independent study 360 h</b>				
<b>Module description</b>								
<p>The research curriculum is a series of four one-semester modules that spans the entire duration of the two-year Master's Program, engaging students in a research-oriented learning process.</p> <p>In the first module, the emphasis is on the fieldwork methodology in both its practical aspects and its epistemological underpinnings. Empirical case studies from fields such as digital and communication technologies, biomedicine, the financial sector, economic governance, and infrastructure will be used to develop key themes which students will learn to apply to their own areas of work.</p> <p>Readings taken from selected monographs and research papers by well-known authors from Science and Technology Studies (STS) represent major methodological traditions in STS as well as innovative and cutting-edge approaches (seminar "Ethnographic Encounters"). A broad definition of ethnography is employed, including a range of interpretative and praxeological methods in social research (tutorial "Methods Toolbox"). Strengths and weaknesses of research strategies and related conceptual and theoretical approaches will be considered and discussed.</p>								
<b>Learning goals</b>								
<p>The module provides students with the necessary methodological underpinnings to plan, conduct and evaluate their own fieldwork projects. They will be introduced to a range of research options available to them, and learn to make informed decisions about which methods to choose from various research strategies and fieldwork settings. The module helps students to understand not only the scope of empirical research but also the political, theoretical and ethical implications of concrete ethnographic fieldwork.</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
None								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module in winter semester					
<b>Duration of the module</b>			One semester					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			5.1 Reading report 5.2 In-class presentation					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Term paper of approximately 4000 words "Reverse engineering of selected case study" Successful completion of this module examination is required for admission to Mq.					
		LV form	SWS	CP	Semester			
					1	2	3	4
	5.1 Ethnographic Encounters	S	2	3	X			
	5.2 Method Toolbox	Ü	2	6	X			
	Module examination	MP		5				
	Total		4	14				

M 6 Research Curriculum 2 <sup>nd</sup> semester	Research Design	Compulsory module	17 CP (total) = 510 h				4 SWS	
			Classroom study 4 SWS / 60 h	Independent study 450 h				
<b>Module description</b>								
<p>The development of a research design enables researchers to transform their initial research interest into a step-by-step research plan. Research designs include theory-derived assumptions, specific lines of inquiry, strategies and modes of case selection, choice of observation methods, and selecting modes of data collection and analysis. Students in the module examine a range of contrasting perspectives on the design of research including problem identification, selection and sampling, plus analysis. This module enquires into what counts as a researchable question for ethnographic work in Science and Technology Studies (STS). As a strongly interdisciplinary field, researchers are asked to combine ethnographic fieldwork with other methodological programs including discourse analysis or studies of work. Issues of reflexivity, validity, and ethical questions come to the fore, when researchers engage in experimentations with and co-productions of different knowledges including the experts in the chosen research field.</p> <p>In the course of the module, students learn how to select and combine different research methods for addressing specific research questions, and how to successfully design research projects within STS (project seminar "Introduction to Research Design"). Students will draft a research proposal (dissertation prospectus) which can be used to apply for a research grant to fund travel expenses for fieldwork, if necessary, and which will also serve as the basis for their MA thesis (tutorial / exercise "Proposal Writing"). The research proposal will also include a literature review and documentation of pilot research work (exploratory or pre-test fieldwork in the chosen area of research).</p>								
<b>Learning goals</b>								
The module provides important skills in planning and conducting research, individually and in research teams. It provides the in-depth training necessary to formulate and carry out his or her dissertation research. The module shows that the student can integrate and synthesize the knowledge and skills developed through coursework. The student, moreover, can apply them to the development of an original research project.								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
Successful completion of the module examination for M 5 Research Curriculum "Introduction to Research Methods"								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module in summer semester					
<b>Duration of the module</b>			One semester					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			6.1 In-class presentation (draft of research plan) 6.2 Dissertation prospectus (including report on pilot research and literature review)					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Oral group exam "Presentation of individual research designs" / Successful completion of this module examination is required for admission to M9.					
		LV form	SWS	CP	Semester			
					1	2	3	4
	6.1 Research Design	FS	2	6		X		
	6.2 Proposal Writing	Ü	2	6		X		
	Module examination	MP		5				
	Total		4	17				

M 7 Research Curriculum 3 <sup>rd</sup> semester	Fieldwork	Compulsory module	17 CP (total) = 510 h				4 SWS	
			Classroom study 4 SWS / 60 h	Independent study 450 h				
<b>Module description</b>								
<p>During the second year, students pursue their original research project. The third semester is dedicated to fieldwork, data collection and analysis. Courses offered provide a framework for reporting on fieldwork and solving problems that come up in the field or in handling data. Research ethics, the role of the researcher, and the position of the researched practitioners in generating qualitative data, are key themes, which run through the module.</p> <p>Alongside ongoing fieldwork projects conducted by students, the project seminar will be offered both face-to-face and online, taking the form of a research colloquium where participants report on progress and discuss problems that they encounter. It will be attended by all students of the module, no matter whether they are present on campus or currently in the field. Thesis supervisors offer individual support. In addition, an online seminar (tutorial “E-course Recent Debates in STS”) will address problem spaces and core challenges of current research in Science and Technology Studies. Here, teaching staff and students collaborate in identifying topics and discussing recent conference papers, electronic discussion lists and blogs.</p>								
<b>Learning goals</b>								
<p>In the course of the module, students learn to appropriately apply concepts and methods acquired during the first year, and to work both independently and collaboratively within the framework of an original research project. Students demonstrate that they command the necessary skills to do ethnographic fieldwork, and to organize their own research process, including data analysis and documentation. The aim is that they manage to do so in a systematic, reflected, and responsible way.</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
Successful completion of the module examination for M 6 Research Curriculum “Research Design”								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module in winter semester					
<b>Duration of the module</b>			One semester					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			7.1 Research report 7.2 Written assignment					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Oral group exam “Presentation of fieldwork findings” / Successful completion of this module examination is required for admission to M9.					
		LV form	SWS	CP	Semester			
					1	2	3	4
7.1	Research Colloquium	FS	2	6			X	
7.2	E-course Recent Debates in STS	Ü	2	6			X	
	Module examination	MP		5				
	Total		4	17				

M 8 Research Curriculum 4 <sup>th</sup> semester	Analysis and Writing	Compulsory module	5 CP (total) = 150 h				4 SWS	
			Classroom study 4 SWS / 60 h	Independent study 90 h				
<b>Module description</b>								
<p>Controversies play a key role in the ongoing development of science, technology, economy and society. In Science and Technology Studies (STS), it is an important issue how to communicate academic issues, analyses and conclusions. The specialists, experts, and the general public require diversified recipient designs. What is more, STS involves some level of collaboration with scientists, engineers, policy makers, community officials, or members of the public.</p> <p>In the project seminar “Performing Research”, students will learn to respond to current Call for Papers for conferences. They learn how to propose papers to journals, and how to address non-academic audiences. This course will cover a range of activities, including student presentations, panel discussions, one-day conferences and invited speakers. The tutorial “Writing Lab” frames the individual writing process with work-in-progress-discussions and revision circles.</p>								
<b>Learning goals</b>								
<p>The writing of the MA thesis will provide an opportunity to develop critical and analytical abilities. Students show that they are able to analyze and deal critically with wide-ranging sources of information and complex theoretical approaches applicable to their fieldwork research. While in the process of writing the MA thesis, the students prove that they can communicate extensive independent work in English. They use academic vocabularies competently, relate to ongoing scholarly debates, and make analytical choices in light of their fieldwork experiences. This module also helps students to learn necessary skills in communicating and working with scientists and engineers, policy makers, community officials, or various publics.</p>								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
Successful completion of the module examination for M 7 Research Curriculum “Fieldwork”								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module in summer semester					
<b>Duration of the module</b>			One semester					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			8.1 In-class presentation (work-in-progress) 8.2 Written assignment Confirmation of successful module completion (ungraded)					
<b>Mode of teaching / studying</b>			Classroom teaching					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Not applicable					
		LV form	SWS	CP	Semester			
					1	2	3	4
	8.1 Writing Lab	Ü	2	3				X
	8.2 Performing Research	FS	2	2				X
	Total		4	5				



<b>M 9</b> Final Thesis	Masters Thesis	Compulsory module	25 CP (total) = 750 h				0 SWS	
			Classroom study 0 SWS / 0 h	Independent study 750 h				
<b>Module description</b>								
In the final module, the student will write an original masters thesis, setting out, examining and supporting an original idea. The thesis will build on the work done in the previous semesters and will deploy theories from course readings, analyze the findings of student's fieldwork and examine them in the light of state-of-the-art debates in Science and Technology Studies and related fields.								
<b>Learning goals</b>								
Students will show the ability to write critically, summarize and condense all the previous discussions. They will present and defend their original thesis in front of a committee.								
<b>Admission requirements for the module or individual courses of the module</b>								
None								
<b>Recommended prerequisites</b>								
Successful completion of the first three modules of the "Research Curriculum"								
<b>Assignment of the module (degree program / faculty)</b>			MA Program Science and Technology. Economies, Governance, Life (Institute of Cultural Anthropology and European Ethnology)					
<b>Applicability of the module for other programs</b>			The module is not applicable for other programs.					
<b>Frequency of the offer</b>			Students can start the module in summer semester					
<b>Duration of the module</b>			One semester					
<b>Module supervisor</b>			Academic program director (Prof. Welz)					
<b>Ungraded performance required for course assessment</b>			None					
<b>Mode of teaching / studying</b>			Independent study					
<b>Language of instruction / examination language</b>			English					
<b>Module examination</b>			Master thesis of approximately 15.000 words and oral thesis defense. The final grade is constituted by the grade awarded to the written master thesis (two thirds) and the grade awarded to the oral thesis defense (one third).					
		LV form	SWS	CP	Semester			
					1	2	3	4
	9.1 Master Thesis	---	0	25				X
	Module examination	MP						
	Total		0	25				