A Programme Syllabus for the Master of Science in Environmental Management and Policy / Masterprogram i Miljöstrategisk Styrning

Programme code: XAMIS

Scope: 120 credits

Cycle: Second

Approved by: Programme Board W

Validity: 2018/2019 (The revised programme will be given for the first time starting in the fall semester of 2018)

Date of approval: 2017-10-09

The syllabus was first approved by the Board of the International Institute of Industrial Environmental Economics in 2006. Earlier revisions to the syllabus were approved by Utbildningsnämnd C, Lund University, Faculty of Engineering in 2014 and 2016.

Language of instruction: English
1 AIM AND OUTCOMES

1.1 AIM
The International Master’s Programme in Environmental Management and Policy (EMP) is designed to enable graduates to drive change by developing their ability to evaluate, design and implement management and policy responses to complex environmental challenges.

Key features of the programme include its interdisciplinary, international and applied nature. Sustainability challenges are inherently complex and our understanding of the challenges, as well as of potential solutions, requires incorporating a range of disciplinary perspectives and sensitivity to the impact of differences in e.g. national and cultural contexts.

The international and interdisciplinary elements are built into the curriculum; they are also emphasised through the broad range of cultural, disciplinary and professional backgrounds of the teaching faculty. Designed to build on the knowledge that students have acquired during the first cycle education, the EMP programme also explicitly includes learning activities that encourage the peer to peer sharing of experience and perspectives, thus allowing students to capitalise on the diverse collective experience.

Courses within the programme can be divided into five blocks:

- Courses providing knowledge and skills that are fundamental for all sustainability professionals.
- Courses related to corporate environmental management.
- Courses related to environmental policy at the urban, national and international level.
- Elective courses that allow students to choose between going deeper into environmental policy or environmental management.
- Capstone courses that allow for both further specialization and for the integration and application of all prior learning in the programme.

The dual focus on environmental policy and environmental management is another central and explicit feature of the programme. Not only does this provide graduates of the programme with the necessary knowledge and skillsets to excel in a broad range of career options, but, more importantly, it is based on the conviction that decision makers within both the field of environmental policy and the field of environmental management benefit vastly from having this mutual understanding.

As such, the EMP Programme aims to produce graduates that are well qualified to take on advanced sustainability-related tasks and responsibilities within government organisations (local, national as well as supranational), business organisations, and in organisations that seek to advise or influence sustainability related business or policy decisions (consultancies, NGOs and research organizations). Students graduating from the EMP Programme will also have acquired a solid basis in academic research and writing that will make them eligible for third-cycle education.

1.2 OUTCOMES FOR A DEGREE OF MASTER OF SCIENCE (120 CREDITS)
(General learning outcomes for a Master of Science as specified in the Higher Education Ordinance 1993:100)
Knowledge and understanding

For a Degree of Master of Science (120 credits), the student shall:

- Demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field, as well as insight into current research and development work.
- Demonstrate specialised methodological knowledge in the main field of study.

Competence and skills

For a Degree of Master of Science (120 credits), the student shall:

- Demonstrate the ability to critically and systematically integrate knowledge andanalyse, assess and deal with complex phenomena, issues and situations even with limited information.
- Demonstrate the ability to identify and formulate issues critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks and within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work.
- Demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences.
- Demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

Judgement and approach

For a Degree of Master of Science (120 credits), the student shall:

- Demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work.
- Demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.
- Demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

1.3 Specific Outcomes for a Degree of Master of Science in Environmental Management and Policy (120 Credits)

In addition to the learning outcomes stipulated in the Higher Education Ordinance 1993:100, the following additional learning outcomes apply specifically for the Master of Science in Environmental Management and Policy.

Knowledge and understanding

For a degree of Master of Science in Environmental Management and Policy, students shall:

- Demonstrate knowledge and understanding of existing systems of production and consumption and of the interplay between patterns of production and consumption and environmental impact.
• Demonstrate knowledge and understanding of current practices within the field of preventive environmental management and policy and of relevant theory to inform analysis of such practices.
• Demonstrate knowledge and understanding of the interplay between corporate sustainability management and public environmental policy and of the logic of applying systems thinking and a preventive approach in both environmental management and policy.
• Demonstrate specialised methodological knowledge to analyse complex environmental problems from an interdisciplinary perspective and to identify and evaluate management and policy measures for addressing critical environmental challenges.

Competence and skills

For a degree of Master of Science in Environmental Management and Policy, students shall:

• Demonstrate the ability to analyse complex environmental challenges and sustainability solutions, from both business and policy perspectives, taking a systemic and interdisciplinary approach.
• Demonstrate the skills required to motivate, enable and facilitate collaborative efforts for the development of sustainability solutions in a variety of contexts that may differ with regard to cultures, nationalities, academic and professional backgrounds.
• Demonstrate the skills required for autonomous employment that may include responsibilities to design and implement interventions, transition processes and transformative governance strategies toward sustainability.
• Demonstrate the skills required for participation in interdisciplinary research and development work in environmental management and policy.

Judgement and approach

For a degree of Master of Science in Environmental Management and Policy, students shall:

• Demonstrate the ability to make assessments, informed by relevant disciplinary, social and ethical considerations, in the field of preventive environmental management and policy as well as to demonstrate awareness of ethical aspects of research and development work.
• Demonstrate insight into the possibilities and limitations of research within different relevant academic disciplines in analysing and addressing sustainability related issues, the role of such research in society and the responsibility of the individual for how it is used.

1.4 Further studies

On completion of the second-cycle degree, students have basic eligibility for third-cycle studies.
2 PROGRAMME STRUCTURE

The programme runs over four semesters and is comprised of 75 credits of compulsory courses and 15 credits of elective courses and a degree project of 30 credits.

Courses are divided into five blocks as illustrated in the figure below.¹

<table>
<thead>
<tr>
<th>Block</th>
<th>Courses</th>
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<tbody>
<tr>
<td><strong>Fundamentals Block</strong></td>
<td>Environmental Science and the Anthropocene 5 credits</td>
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<td></td>
<td>Conceptualisations of Sustainability 5 credits</td>
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<td></td>
<td>Fundamentals of Technical Systems 5 credits</td>
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<td></td>
<td>Fundamentals of Economics and Environmental Evaluation (ECA) 5 credits</td>
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<td></td>
<td>Research Design &amp; Methodology for Interdisciplinary Applied Research</td>
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<td><strong>Management Block</strong></td>
<td>Introduction to Business Management and Corporate Responsibility 5 credits</td>
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<td>Corporate Environmental Management 7 credits</td>
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<td>Sustainability and Business Value Creation 5 credits</td>
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<td><strong>Policy Block</strong></td>
<td>Introduction to Policy and Law 5 credits</td>
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<td></td>
<td>Environmental Law and Policy in Practice 7.5 credits</td>
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<td></td>
<td>Environmental Policy Analysis 7.5 credits</td>
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<td><strong>Elective courses</strong></td>
<td>E1A: Environmental Management and Policy in Practice - Business Consulting 7.5 credits</td>
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<td>E2A: Applied Research in International and National Policy Intervention - for a Transition to Low Carbon and Resource-efficient Economics 7.5 credits</td>
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<td>E2B: Applied Research in Urban Governance and Experimentation - for a Transition to Low Carbon and Resource-efficient Economies 7.5 credits</td>
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<td></td>
<td>E2C: Applied Research in Business Management and Practice - for a Transition to Low Carbon and Resource-efficient Economies 7.5 credits</td>
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<td></td>
<td>E2D: Applied Research in Consumption Governance - for a Transition to Low Carbon and Resource-efficient Economies 7.5 credits</td>
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<tr>
<td><strong>Capstone courses</strong></td>
<td>Sustainability Solutions in Context - Project Course 10 credits</td>
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<td></td>
<td>Degree Project in Environmental Management and Policy 10 credits</td>
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The courses in the fundamentals block are mutually independent but all provide students with critical knowledge that serve as a foundation for all subsequent courses in the management and policy blocks. The courses in the Environmental Management block are designed with a clear progression from course to course and the same principle is valid for the courses that fall under the Environmental Policy block. The elective courses give students the freedom to select specific topic areas for further specialization. Finally, the two capstone courses offer a possibility for further specialisation while encouraging students to demonstrate and integrate knowledge gained throughout the programme.

Learning outcomes related to competence and skills, and judgement and approach are integrated into all courses and are progressively developed throughout the course of the programme.

¹ Please note that this figure illustrates the categorization of courses in the programme not the flow of courses through the different semesters. This can instead be seen in section 3.1
2.1 Courses
Below is the list of courses included in each semester. As the student moves through the programme, the courses gradually become more and more focused on application, with project based courses and courses that provide opportunities for individual research.

First semester:
- Environmental Science and the Anthropocene (5 credits)
- Conceptualisations of Sustainability (5 credits)
- Fundamentals of Technical Systems (5 credits)
- Fundamentals of Economics and Economic Evaluation of Environmental Change (5 credits)
- Introduction to Business Management and Corporate Responsibility (5 credits)
- Introduction to Policy and Law (5 credits)

Second semester
- Analytical Methods for Systemic Assessment of Products and Services. Lifecycle Assessment (LCA) (3 credits)
- Corporate Environmental Management (7 credits)
- Sustainability and Business Value Creation (5 credits)
- Environmental Law and Policy in Practice (7.5 credits)
- Elective course: Environmental Management and Strategy in Practice – Business Consulting (7.5 credits)
- Elective course: Environmental Management and Policy in Practice – Internship (7.5 credits)

Third semester
- Environmental Policy Analysis (7.5 credits)
- Sustainability Solutions in Context - Project Course (10 credits)
- Elective course: Applied Research in International and National Policy Intervention for a Transition to Low-carbon and Resource-efficient Economies (7.5 credits)
- Elective course: Applied research in Urban Governance and Experimentation for a Transition to Low-carbon and Resource-efficient Economies (7.5 credits)
- Elective course: Applied Research in Business Management and Practice for a Transition to Low-carbon and Resource-efficient Economies (7.5 credits)
- Elective course: Applied Research in Consumption Governance for a Transition to Low-carbon and Resource-efficient Economies (7.5 credits)
- Research Design & Methodology for Interdisciplinary Applied Research (5 credits)

Fourth semester
- Thesis Project. (30 credits)

During the fourth term, the student is required to write and successfully defend a Master’s thesis of 30 university credits. The thesis project is an individual research task focusing on a particular aspect of environmental management and/or policy. The thesis project must build on previous courses in the programme and encourages the student to demonstrate acquired knowledge, skills and judgement related to integration and synthesis of knowledge. In addition, the student applies research methods to design a research project, including formulation of research questions, data collection, critical analysis and development of relevant and useful recommendations.
3 SPECIFIC ADMISSION REQUIREMENTS

3.1 ADMISSION REQUIREMENTS
Admission requirements and selection criteria for acceptance to advanced university education are stipulated in Chapter 7 of the Swedish Higher Education Ordinance (Swedish Code of Statutes 2006:1053) and in Antagningsordning för utbildning på grundnivå och avancerad nivå vid Lunds Universitet (LU Dnr STYR 2016/869).

Admission to the Master of Science in Environmental Management and Policy requires an undergraduate degree (BA/BSc) of at least 180 credits or the equivalent foreign degree from an internationally recognised university.

English 6/English Course B language proficiency shall be demonstrated.

The applicant’s estimated capacity to complete the programme is the primary criterion for selection. Students who fulfil the specific eligibility requirements are selected on the basis of their previous study results and other merits in addition to letters of recommendation and the applicant’s Statement of Purpose.

Foreign students are exempted from the basic university eligibility requirement of commanding the Swedish language.

4 DEGREE

4.1 DEGREE REQUIREMENTS
For a Degree of Master of Science (120 credits) in Environmental Management and Policy, students must successfully complete courses comprising of 120 credits, including a degree project worth 30 credits. 75 credits must be second-cycle credits, including the degree project.

4.1.1 Degree project
For a Degree of Master of Science (120 credits), students must complete an independent project (degree project) of no less than 30 credits as part of the course requirements. The degree project must be completed in accordance with the valid course syllabus and must deal with a subject that is relevant to the education provided within the EMP programme.

4.2 DEGREE AND DEGREE CERTIFICATE
When students have completed the degree requirements, they are entitled to apply for a degree certificate for a Master of Science (120 credits) with the main field of study as Environmental Management and Policy. The Swedish title of the degree is Filosofie masterexamen i miljöarbete ur ett management- och policyperspektiv.

5 FURTHER INFORMATION

Students who started the programme studies prior to autumn semester 2018 must follow the earlier programme plan valid for that time period.

The following courses in the earlier programme plan will be given for the last time in the spring semester of 2018:
• IMEN09
• IMEN13
• IMEN14
• IMEN15
• IMEN17

The following courses in the earlier programme plan will be given for the last time in the fall semester of 2018:

• IMEN 19
• IMEN 24
• IMEN 26
• IMEN 27
• IMEN28

The following courses in the earlier programme plan will be given for the last time in the spring semester of 2019:

• IMEN 31
• IMEN 32
• IMEN 33
• IMEN 34

However, with the exception of IMEN 17 and IMEN 19, all courses in the previous curriculum can be accredited for, when continuing to this curriculum.