

Ecology, Society and Sustainable Development

Lecturers:

Dr. Arturo Balderas Torres

Course description:

- Course objectives

The student will gain insight into the processes that lead to behavioural changes of relevant stakeholders and that contribute to sustainable development. This will be achieved by using the theoretical background of institutional economics and positioning this approach in the knowledge and expertise from MEEM and the student's backgrounds. Students will gain insight by applying the concepts to specific situation in their home country.

- Subject

Sustainable development as societal processes governed by institutions and economic

- Content / topics

The course discusses environmental problems, their societal and economic impact, and the relationship between local and global issues and potential paths to deal with the problems in a more sustainable way. It will use an institutional economics approach to provide a framework for: analysis of socio-economic processes, the position of different stakeholders and government decision-making. Factors that influence the willingness and commitment of relevant stakeholders to change are crucial. These factors can be divided into different categories: social, market, economic and financial, technological, physical-spatial and law/regulatory. For each factor the appropriate indicators have to be determined for the feed-back to each stakeholder. The triple bottom line and ecological footprint approach will be used as practical ways of developing sustainable action. Students will apply the knowledge gained in the MEEM to present the possibility of starting a sustainability process in their home country.

- Course learning objectives

Students will learn to analyse the origin, backgrounds and societal effects of a specific environmental problem. They will determine how a specific problem came into being and the role of different stakeholders in that process through:

- Analysing the involvement of different stakeholders.
- Identifying and analysing the societal process that lead to the environmental problem.
- Develop a sustainable development/solution for that problem.
- Identifying how students can contribute to the process in their home countries and develop solutions.
- Identifying who is responsible, who needs to be involved in the process, which instruments/ skills have to be used and how consensus and commitment can be created.

Course materials:

- Internet sources
- Academic journal papers (reader)
- Newspaper articles and analyses

Instructional working methods:

Group work, lectures, and presentations.

Students will be divided into groups according to land or region or common environmental problem. Each group chooses a specific problem with the help of the instructor and by searching the internet for information. Lectures will be given on the local, regional and global impact of environmental problems and on change processes and how these are influenced by ecological, economic, social factors. In each group students will discuss how they can translate the information presented into the analytical framework and develop solutions to their specific problem. Each group will make a proposal on how to approach their subject. Group members then take positions from a specific stakeholder-standpoint that is related to their own situation. Each proposal is discussed in class. Suggestions are implemented and the approach and suggested solutions are optimized. The group assignment consists of the identification of the problem, a description of the background and an explanation of what their role in the change process will/can be. Each group has to present this. After the presentation the students complete their group work by designing and describing the change process including a realistic time table.

Assessment:

The students' grade is based on the presentations, their involvement in the discussions, interest and commitment for the subject and their self-evaluation. In the self-evaluation, they have to show what they have learnt and how this complements their own knowledge. They can also plea to say whether they do or do not agree with the grade.

Relationships with other courses:

Sustainable development is a function of many different processes and within it different measures, techniques, skills and methods. Many of these are discussed in the other courses. Their relevancy is determined by the nature and dynamics of the problem within a social context. The students will bring methods, skills and techniques taught in other courses to the case studies developed in the group work. Students will learn how to determine the limitations of methods, techniques and skills for different situations and regions.

Relation of course with Final Attainment Targets:

• Primary relationship

- Graduates understand the concept of sustainable development and the relationships between resource utilization, production processes, societal processes and environmental pressure and are able to apply combinations of concepts and theories in environmental and energy management to the situation in the home country or other specific real life situations. (5)
- Graduates are able to integrate knowledge from various disciplines and to understand interrelationships in sustainable development processes, and are capable of formulating an action programme, policy, project or recommendations for environmental or energy management issues in their context based on this integrated knowledge. (6)

• Secondary relationship

- Graduates take the responsibility for the continuous development of their own knowledge and skills. (9)
- Graduates are able and willing to recognize the ethical aspects related to their activities. (11)

- Graduates are able to give a structured written and oral presentation in English about individual or team work. They also adhere to existing academic traditions, such as providing proper credits and references. (12)

- Graduates are able to reflect on matters and issues in the topic domain, are able to form an opinion and to contribute to both scientific and practitioners' discussions and e.g. to critically reflect on the role of technology in the process towards sustainable development. (13)

- **Tertiary relationship**

- Graduates are able to independently access relevant scientific literature to obtain additional knowledge and apply this to the problem at hand. (8)

- Graduates are able to make a relevant contribution as an individual or as a member of a multidisciplinary team to analysing and solving complex environmental or energy problems in an organisation or region. They are able to function in an international team, with English as the language of communication. (10)