HÖGSKOLAN I GÄVLE

Programme Syllabus

For
Decision Risk and Policy Analysis   **180 HE credits**
Besluts-, risk-, och policyanalys   **180 högskolepoäng**

Programme Code:	TGBRK
Level:	First cycle
Valid from:	Autumn semester 2012
Established:	2011-11-16
Reference Number:	HIG 2011/915
Established by:	The Faculty Board

Entry Requirements
General entry requirements and specific entry requirements 4 (English B, Mathematics C, Social Studies A).

Expected Learning Outcomes
Expected Learning Outcomes According to the Higher Education Ordinance

Knowledge and Understanding
For a bachelor's degree, the student should
 – demonstrate knowledge and understanding in the programme's main field of study, including knowledge of the disciplinary foundation of the field, knowledge of applicable methods in the area, advanced studies in some part of the field and orientation in current research.

Skills and Abilities
For a bachelor's degree, the student should
 – demonstrate the ability to search for, collect, evaluate and critically interpret relevant information in a problem, and to critically discuss phenomena, issues and situations
 – demonstrate the ability to independently identify, formulate and solve problems and to carry out assignments within given time frames,
 – demonstrate the ability to account for and discuss information, problems and solutions in dialogue with different groups, orally and in writing, and
 – demonstrate the skills required to work independently within the field of the education.

Judgement and Approach
For a bachelor's degree, the student should
- demonstrate the ability to make assessments with consideration to relevant scientific, social and ethical aspects, within the programme's main field of study
- demonstrate an understanding of the role of knowledge in society and of people's responsibility for how it is used, and
- demonstrate the ability to identify the own need of additional knowledge and to develop the own skills.

Thesis (degree project)
For a bachelor's degree, the student must have successfully completed an individual assignment (degree project) of at least 15 HE credits within the programme's main field of study, and within the framework of the required courses.

See also the local Degree Ordinance.

The Contents and Arrangement of the Programme
Decision, risk and policy analysis studies decision making, risk assessment and policy making in a broad perspective, and is a subject area with major social relevance:
In a modern society, decisions are made in all professions and at all levels, citizen and environmental safety have high priority and different forms of regulatory systems (policies) are used to steer the development of organisations and activities in the desired direction.
The knowledge of the different aspects of decision making is a growing field that will become more important in the future. Knowledge of decision-making processes and various types of tools for facilitating decision making are needed.

It is also necessary to be familiar with the cognitive aspects that affect decision making, have knowledge of the role of values and understand what measurement, e.g. measurement of quality, implies and how measurement may be used in a meaningful way. Research has shown that due to our limited mental capacity, we are forced to use basic rules of thumb in decision making. In many cases, basic rules of thumb work well, but it is not unusual that they result in serious logical errors. There are clearly good reasons to search for different types of tools that may help us to make better, or at least more rational, decisions.

The education includes basic theories and methods in decision and risk analysis, how different kinds of regulatory systems, such as laws and policies, govern decision making and risk assessment, how complex balances may be handled in a rational way (multi-criteria analysis) e.g. with the use of decision support, how risks may be analysed e.g. by means of different computer programs and how structured and justified priorities may be made.
The programme also covers risk communication, visualisation as support in decision making, how to adapt the existing decision support for specific purposes and the basics in development of intelligent decision support.

The education gives the student a solid basis in decision theory and its applications, while at the same time, the student acquires knowledge of the domain in one or several subject areas that he or she may work within in the future.

Concerning courses outside the main field of decision, risk and policy analysis, other study paths than the one presented in this programme syllabus may be possible after consultation with the faculty programme director.

Courses

Year 1 Period	Course Name	Level	HE credits	Main Field of Study
1:1	Introduction to Higher Studies in Land Management	G1N	5	SP
1:1	Computational Methods for IT	G1N	10	Mathematics
1:2	Decision and Risk Analysis 1	G1N	7.5	DRP
1:2	Geographic Information Technology		7.5	SP/ Geography
1:3	Data Analysis and Statistics 1	G1N	7.5	Statistics
1:3	Decision and Risk Analysis2	G1F	7.5	DRP
1:4	Formal Theories in Risk and Use	G1F	7.5	DRP
1:4	Physical and Comprehensive Planning	G1N	7.5	SP

Year 2 Period	Course Name	Level	HE credits	Main Field of Study
2:1	Psychological and Sociological Aspects of Decision Making	G1F	7.5	DRP
2:1-2	Argumentation, Regulatory Systems and Value Analysis	G1F	15	DRP
2:2	The Basics of Multi-criteria analysis	G1F	7.5	DRP
2:3	Environmental Impact Assessment	G1N	7.5	SP
2:3	Democracy and Ethics in the Spatial Planning Process	G2F	7.5	SP
2:4	Data Analysis and Statistics 2	G1F	7.5	Statistics
2:4	Elective Course, e.g.		7.5	
	(a) Essay in Decision, Risk and Policy Analysis	G1E		DRP
	(b) Earth Sciences A	G1N		Geography Economics

Year 3	(c) Financial Analysis			
Period	**Course Name**	**Level**	**HE credits**	**Main Field of Study**
3:1	Multi-criteria Analysis and Representation Theory	G1F	7.5	DRP
3:1	Decision and Risk Analysis 3	G2F	7.5	DRP
3:2	Advanced Studies in Decision Analysis	G2F	7.5	DRP
3:2	Regional Development	G1F	7.5	SP/ Geography
3:3	Elective Course, e.g.		7.5	
	(a) Natural Hazard and Risk Assessment			Geography
	(b) Current Research Questions in Decision, Risk and Policy Analysis	G2F		DRP
3:3	Scientific theory and writing		7.5	DRP
3:4	Degree project for first-cycle studies in Decision, Risk and Policy Analysis	G2E	15	DRP

Main Field of Study: DRP Decision, Risk and Policy Analysis, SP Spatial Planning

Higher Education Qualification
To receive a certificate of *bachelor's degree* in *decision, risk and policy analysis*, the student must have successfully completed courses of 180 HE credits within the programme.

The higher education qualification must include at least 90 HE credits with a progressive specialisation in the main field, including an independent degree project of 15 HE credits.

Bachelor of Science in *Decision, Risk and Policy Analysis*.

Student Influence and Evaluation
The council for educational affairs should be linked to the study programme. The faculty programme director should be the chairman and summoner of the council. The purpose of the council for educational affairs is to give students and representatives from the working life/society influence over the study programme.

The programme students should be given the opportunity to give their opinions about the study programme annually through a programme evaluation. The programme evaluation should be carried out using the evaluation tool of the higher education institution. A compilation of the results of the evaluation should be submitted to the Faculty Board.

Other
For students admitted to the later part of programme and for students who have been granted approved leave from studies, a specific study plan is established by the faculty programme directors in consultation with study advisers when necessary.