HÖGSKOLAN
I GÄVLE

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PROGRAMME SYLLABUS

FIRST CYCLE

STUDY PROGRAMME IN DESIGN
AND WOOD TECHNOLOGY
Programme Code: TGDEK
Established by the Board of Science and Technology
2008-10-28

Programme Syllabus

Study Programme in Design and Wood Technology, 180 HE credits

(Design och Träteknik, 180 hp)

This programme syllabus applies to students admitted to the autumn semester of 2009 or later.

STUDY PROGRAMME IN DESIGN AND WOOD TECHNOLOGY
at Högskolan i Gävle

1 General Arrangement

The education is a design programme with a specialisation in the material wood. The education includes a total of 180 HE credits divided into three academic years. The higher education qualification received after completed education is a Bachelor of Arts in the main field of design

2 Expected Learning Outcomes

2.1.1 Expected Learning Outcomes for First-cycle Programmes According to the Higher Education Act, Chapter 1, Section 8, and Qualification Descriptor According to the Higher Education Ordinance, Appendix 2

The government may, however, grant exemptions regarding programmes in fine, applied and performing arts.

First-cycle studies should develop the students

- ability to make independent and critical assessments
- ability to independently discern, formulate and solve problems, and
- preparedness to address changes in the working life.

Within the field of the education, the students should, in addition to knowledge and skills, develop the ability to

- search and evaluate knowledge on an academic level
- follow the knowledge development, and
- exchange knowledge also with individuals without expertise in the area.

2.1.2 Qualification Descriptor According to the Higher Education Ordinance, Appendix 2

Bachelor's degree

Extent

Bachelor's degree is achieved when the student has successfully completed required courses of 180 HE credits with certain specialisation decided by each higher education institution, including at least 90 HE credits of progressive specialisation in the programme's main field of study.

Expected Learning Outcomes

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.

Other
For a bachelor's degree with a certain specialisation, the specific requirements decided by each higher education institution within the framework of the requirements in this qualification descriptor, should also apply

2.2 Specific Learning Outcomes for the Programme

Skills and Abilities
After the education, the student should

- demonstrate the ability to formulate, plan and carry out design projects
- demonstrate the skills to sketch, draw and express oneself in speech and writing
- demonstrate the ability to use wood-working machines, such as the thickness planer, jointer, lathe, cabinet saw and band saw, in a safe and correct way
- demonstrate the ability to analyse and evaluate materials selections for planned products
- demonstrate the ability to build and design prototypes and models in different materials
- demonstrate the ability to present and clarify products and product ideas.

Knowledge and Understanding
After the education, the student should
- demonstrate knowledge of design methodology
- demonstrate knowledge of product semantics and design
- demonstrate knowledge of the concept of Design for All
- demonstrate knowledge and understanding of the concepts of eco design and sustainable development
- demonstrate knowledge of the history of design and design theory
- demonstrate an understanding of image composition, knowledge of perspectives and colour theory
- demonstrate knowledge of and be able to handle different presentation techniques
- demonstrate an understanding of artistic work
- demonstrate knowledge of the wood material and its structure
- demonstrate an understanding of processing and the application areas of wood
- demonstrate an understanding of production methods, particularly in the wood-working industry.

Judgement and Approach
After the education, the student should
- demonstrate the ability to formulate search questions and seek information in relevant sources
- demonstrate the ability to interpret and write references
- be able to account for the difference between scientific material and other types of material
- be able to follow the knowledge development in the own subject area
- be familiar with the forms of scholarly communication and publication
- demonstrate the ability to review, analyse and evaluate both the search process and search results
- demonstrate the ability to present criteria for assessment of sources of information and application of these.

3 Description of the Programme

3.1 The main field of study of Design and the subject area Wood Technology

The Programme is based on studies in two subject areas:
The main field of study of *Design* and the subject area of *Wood Technology*. The main field of study of design includes design methodology, systematic product development, design theory, artistic and creative techniques and presentation technique. Both in the form of whole courses and as elements in other courses, an orientation and specialisation in ecological aspects and sustainable design are given. To integrate the role of design in related vocational branches, an orientation in the fields of wood construction, public environments, furniture and interior design is given.

The subject area of Wood Technology at Högskolan i Gävle (HiG) is a small but broad field that includes material science, basic carpentry, production technology within the wood manufacturing industry. The education is therefore a combined design and technology programme, which is practically oriented and can be viewed as a preparatory vocational education. The knowledge and skills acquired in the education provide the conditions for several different roles that may be utilised in

various types of wood-working companies.

The purpose of combining these subject areas is that those who follow the education should acquire advanced knowledge of product development in combination with a very broad knowledge of materials. The knowledge of design also provides the possibility to work as a *designer*, and also provides the conditions for the role as skilled design purchaser, hence an important link between companies and professional industrial designers, interior designers or other designers.

3.2 Teaching and Examination

3.2.1 Teaching

A major part of the teaching is carried out as projects. The purpose of the projects is to develop the student's abilities and skills in planning, carrying out and presenting design projects, and use the knowledge acquired in design and wood technology in theory and practice. In Design, pure proficiency exercises are alternated with theories partly covered in seminars.

In Wood Technology, the teaching is carried out as theoretical lectures and through laboratory and practical proficiency exercises. The progression of the education and the main fields of study occur through gradually increasing complexity and specialisation in the design projects.

3.2.2 Examination

Examination is carried out within the framework of the programme courses.
The forms of examination are chosen in such a way that they give the student the possibility to demonstrate the different knowledge and knowledge forms expressed in the expected learning outcomes. It implies that several different examination formats occur in the education, for example written and oral tests, oral and written presentations of laboratory sessions, written assignments and project assignments.

3.3 Placement

Placement at workplaces that provide an insight into and preparation for the future working life is recommended.
The higher education institution does not provide placements.

3.4 Student Influence

There is a council for educational affairs linked to the programme, which consists of representatives from the working life, teachers and students. The council for educational affairs is advisory, and the faculty programme director is the chairman. There are student representatives in the board of governors, the faculty boards and in the department boards. Gefle Student Union appoints student representatives.

3.5 Internationalisation

Högskolan i Gävle has a large international contact network and several agreements with higher education institutions and universities abroad.
At the higher education institution, there is an international office that can give information about which exchanges are currently available at each given date.

3.6 Technology and Society

An important starting point for the education is that the student must be able to view new technology from a social perspective. The student needs knowledge about and skills in managing products, processes and working environments with consideration to the preconditions and needs of people and to the targets of society concerning social relations, resource management, environment and economics.

After the education, the student should be able to take human science and environmental requirements in problem-solving and product development into account, and have the conditions to promote an environmentally adapted technology. Therefore, working methods that develop these abilities are important elements in the education.

4 Courses within the Programme

The students have guaranteed admission to the courses within the programme. Course applications for the following semester must be submitted. Changes in the order of courses may be made in consultation with students in the programme. Changes in the programme courses are determined by the Faculty Board. Change of period when the course given is determined on department level. Alternative course choices may be made in consultation with the faculty programme director, provided that the expected learning outcomes for the programme are fulfilled.

F = First Cycle

Year 1

Period	Course Name	HE credits	Level	Main Field of Study
1:1	Materials Science and Materials Processing 1	7.5	F	Wood Technology
1:1-1:2	Art and Design Techniques 1	6	F	Design
1:1	Computer Aided Design 1	4.5	F	Wood Technology
1:2	Materials Science and Materials Processing, cont.	7.5	F	Wood Technology
1:2	Design and Product Development 1	4.5	F	Design
1:3	Wood in Time	6	F	Wood Technology
1:3	Graphic Design	4.5	F	Design
1:3	Computer Aided Design, cont.	4.5	F	Wood Technology
1:4	Statistics and Solid Mechanics	7.5	F	Wood Technology
1:4	Design and Product Development 2	7.5	F	Design

Year 2

Period	Course Name	HE credits	Level	Main Field of Study
2:1	Materials Science 1	6	F	Wood Technology
2:1	Design and Product Development 3	6	F	Design
2:1	Art and Design Techniques, cont.	3	F	Design
2:2	Wood Furniture and Wood	7.5	F	Wood Technology
2:2	Design History and Design Theory	7.5	F	Design
2:3	Design and Product Development 4	6	F	Design
2:3	Sustainable Design	6	F	Design
2:3	Presentation Techniques 1	3	F	Design
2:4	Materials Science, cont.	4.5	F	Wood Technology
2:4	Design and Product Development 5	7.5	F	Design
2:4	Artistic Creativity	3	F	Design

Year 3

Period	Course Name	HE credits	Level	Main Field of Study
3:1	Production Tech. - Wood Work	7.5	F	Wood Technology
3:1	Design and Product Development 6	7.5	F	Design
3:2	Materials Science - Composites and Paper	4.5	F	Wood Technology
3:2	Design and Product Development 7	3	F	Design
3:2	Scientific Reporting and Method	7.5	F	Design
3:3	Materials Science, Laboratory	4.5	F	Wood Technology
3:3	Presentation Techniques, cont.	10.5	F	Design
3:3-3:4	Degree Project Design	15	F	Design

5 Entry Requirements

Qualified for the Study Programme in Design and Wood Technology are those who fulfil the conditions for general entry requirements.

6 Grades

Grades are given for the programme courses according to relevant course syllabus.

7 Examination Regulations

7.1 Title of Qualification

Bachelor of Arts in Design
Filosofie kandidatexamen inom huvudområdet Design

7.2 Qualification Criteria

To receive certificate for a bachelor's degree with a specialisation in design, the student must have successfully completed courses of at least 180 HE credits.
A higher education qualification should include the programme courses or equivalent.

7.3 Degree Certificates

Students who fulfil the requirements for higher education qualification may receive degree certificates on request. Each degree certificate includes a diploma supplement that describes the education and its place in the education system (the Higher Education Ordinance, chapter 6, section 15). The appendix is called Diploma Supplement. Diploma Supplement should facilitate recognition and credit transfer of a Swedish higher education qualification in employment and continued studies abroad, but also in Sweden.

8 Further Instructions

Students admitted to the early years of the Study Programme in Design and Wood Technology follow the programme syllabi for that year. For students admitted to later parts of the programme and for students who have had approved leave from studies, an individual study plan is established by the faculty programme director in consultation with the study adviser.