



GENERAL SYLLABUS FOR EDUCATION AT THIRD-CYCLE LEVEL IN LANDSCAPE ECOLOGY

TFN Vice Chair 03/03/2010

1 Subject Area

Landscape ecology is the study of the structure, function and change in heterogeneous environments composed of interacting ecosystems. Typical processes to be studied include the distribution and flow of energy, materials and organisms. As a scientific discipline, landscape ecology combines ecology, geosciences and social sciences.

2 Programme curriculum

Education at third-cycle level in Landscape Ecology that concludes with a Degree of Licentiate comprises a total of two years' full time study (120 credits) and consists of a study programme that gives 30 credits and a licentiate thesis of 90 credits.

Education at third-cycle level in Landscape Ecology that concludes with a Degree of Doctor comprises a total of four years' full time study (240 credits) and consists of a study programme that gives 60 credits and a thesis that gives 180 credits.

The education normally covers 80% of full-time and 20% department duties which usually includes teaching at the first-cycle and second-cycle level. The program consists of research work for the academic thesis, courses specializing in the thesis' specific subject field, teacher training or any other education required for the performance of department duties. The research work is communicated to the academic community and society in general through academic articles, participation in conferences and in national and international collaborative projects. During the education, the student's progress and development within the academic research project is communicated to the appointed supervisor.

An individual study plan is drawn up for every third-cycle student (according to a fixed model) where the study programme is specified in detail. The individual study plan shall be followed up at least once a year by a supervisor and the third-cycle student and then approved by the Head of Department, as delegated by the Board.

3 Eligibility and selection

3.1 General eligibility requirements

An individual fulfils the general eligibility requirements for the third-cycle educational programme when he or she 1) has completed a second-cycle degree, 2) has completed higher education courses worth at least 240 credits, of which at least 60 are for second-cycle courses, or 3) in some other manner, in this country or abroad, has acquired the equivalent qualifications. The faculty board may permit an exemption from the requirement of basic eligibility in the case of an individual applicant, if there are special grounds Chapter 7, Section 39 of the Higher Education Ordinance (2010:1064). Also refer to the local guidelines laid down in the Admission Rules for Third-cycle Education at Luleå University of Technology.



3.2 Specific eligibility requirements

Main field/main subject in Environmental Science/Geosciences/Ecology/Geographic Information Technology 60 credits/90 credits, first-cycle.

Good command of oral and written communication in Swedish and/or English.

3.3 Selection

Selection from among applicants meeting the requirements shall be made with reference to their ability to benefit from the education. The mere fact that an applicant is deemed able to receive credit towards the education for previous education or working activities may not alone give the applicant precedence over other applicants in the selection process, Chapter 7, Section 41 of the Higher Education Ordinance (2010:1064). Also refer to local guidelines laid down in the Admission Rules for Third-cycle Education at Luleå University of Technology.

4 Examinations included in the education

The education consists of courses and an academic thesis. Examinations included in third-cycle programmes are graded Pass or Fail. Course and licentiate thesis grades are decided by specially appointed teachers (examiners). Doctoral thesis grades are decided by a specially appointed grading committee.

4.1 Courses

Goal attainment is tested by means of the form of examination specified in the syllabus.

4.1.1 Recognition of prior studies

As specified in the local guidelines laid down in the Admission Rules for Third-cycle Education at Luleå University of Technology.

4.2 Academic thesis

An academic project in the form of a dissertation/thesis in Landscape Ecology shall be presented as a homogenous, cohesive academic work (monograph) or a brief summary – comprehensive summary – of academic papers (composite thesis), which the student has written alone or together with another person or persons.

Thesis manuscripts shall be presented at one or more research seminars or be subjected to equivalent review through the agency of the department.

The licentiate thesis is defended orally at a public licentiate seminar and is graded Pass or Fail. When the thesis is graded both the content of the thesis and the defence of the thesis are taken into consideration. The grade of a licentiate thesis is decided by an examiner appointed by the Head of Department.

The doctoral thesis is defended orally at a public disputation and is graded Pass or Fail. When the thesis is graded, both the content of the thesis and the defence of the thesis are taken into consideration. Grades for a doctoral thesis are decided by a grading committee specifically designated for each thesis.

5 Degree

In Landscape Ecology, a third-cycle student who has been admitted to a Degree of Doctor has the possibility to take a Degree of Licentiate after completing one part giving at least 120 credits of the education that will be concluded with a Degree of Doctor.



5.1 Degree objectives

As specified in the Qualifications Ordinance (Higher Education Ordinance, Annex 2 - Degree Ordinance). See also the Annex below.

5.2 Degree title

A third-cycle student who takes a Degree of Licentiate in Landscape Ecology receives the degree title of Licentiate of Technology but may receive the degree title Licentiate of Philosophy following an application to the Chair of the Faculty Board.

A third-cycle student who takes a Degree of Doctor in Landscape Ecology normally receives the degree title Doctor of Technology but may receive the degree title Doctor of Philosophy following an application to the Chair of the Faculty Board.



ANNEX

Goal for education at third-cycle level (Qualifications Ordinance, Higher Education Ordinance, Annex 2):

1 Knowledge and understanding

For a Degree of Licentiate 120 credits (higher education credits), the third-cycle student shall:

- demonstrate knowledge and understanding in the field of research including current specialist knowledge in a limited area of this field as well as specialised knowledge of research methodology in general and the methods of the specific field of research in particular.

For a Degree of Doctor 240 credits (higher education credits), the third-cycle student shall:

- demonstrate broad knowledge and a systematic understanding of the research domain, together with deep and current specialist knowledge within a limited area of this research domain and
- demonstrate familiarity with academic methodology in general and with the specific research domain's methods in particular.

2 Competence and skills

For a Degree of Licentiate 120 credits, the third-cycle student shall:

- demonstrate the skills to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake a limited piece of research and other qualified tasks within predetermined time frames in order to contribute to the formation of knowledge as well as to evaluate this work,
- demonstrate the skills in both national and international contexts to present and discuss research and research findings in speech and writing and in dialogue with the academic community and society in general, and
- demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- demonstrate the capacity for scholarly analysis and synthesis as well to review and assess new and complex phenomena, issues and situations autonomously and critically,
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work,
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research,
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general and
- demonstrate the ability to identify the need for further knowledge and
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.

3 Judgement and approach



For a Degree of Licentiate 120 credits, the third-cycle student shall:

- demonstrate skills to conduct ethical research assessment in their own research,
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate skills to identify the need for further knowledge and to take responsibility for one's knowledge development.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.

4 Academic thesis

For a Degree of Licentiate 120 credits, the third-cycle student shall:

- have completed an academic thesis of at least 60 higher education credits.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- have completed an academic thesis (doctoral thesis) of at least 120 higher education credits.