

# **Landscape Architecture and Planning**

**Faculty of Agricultural and  
Environmental Sciences,  
Wageningen University**

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This report was finalized on 26 October 2012



# Report on the bachelor programme in Landschapsarchitectuur en ruimtelijke planning and the master programme in Landscape Architecture and Planning of Wageningen University

This report takes the NVAO's Assessment framework for limited programme assessments as a starting point.

## Administrative data regarding the programmes

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### Bachelor programme Landschapsarchitectuur en ruimtelijke planning

Name of the programme:	Landschapsarchitectuur en ruimtelijke planning
CROHO number:	56848
Level of the programme:	bachelor's
Orientation of the programme:	academic
Number of credits:	180 EC
Specializations or tracks:	A: Landscape Architecture B: Spatial Planning
Location(s):	Wageningen
Mode(s) of study:	full time
Expiration of accreditation:	31-12-2013

### Master programme Landscape Architecture and Planning

Name of the programme:	Landscape, Architecture and Planning
CROHO number:	66848
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Specializations or tracks:	A: Landscape Architecture B: Spatial Planning C: Socio-spatial Analysis
Location(s):	Wageningen
Mode(s) of study:	full time
Expiration of accreditation:	31-12-2013

The visit of the assessment committee Landscape Architecture and Planning to the Faculty of Agricultural and Environmental Sciences of Wageningen University took place on 22 and 23 March 2012.

## Administrative data regarding the institution

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Name of the institution:	Wageningen University
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

## Quantitative data regarding the programmes

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The required quantitative data regarding the programmes are included in Appendix 5.

## Composition of the assessment committee

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The committee that assessed the bachelor programme in Landschapsarchitectuur en ruimtelijke planning and the master programme in Landscape Architecture and Planning consisted of:

- Prof. F. Zwarts (chair), professor at University of Groningen and professor and manager at University Campus Fryslân;
- Mrs. R.L. Prenen, MSc, independent educational adviser;
- Prof. D. Bruns, professor for Landscape Planning at the School of Architecture, Urban and Landscape Planning, Kassel University, Germany;
- D. Jansen, BSc (student member), master student in Planning at Utrecht University;
- Prof. G. de Roo, professor in Planning at the Faculty of Spatial Sciences, University of Groningen.

The committee was supported by Mrs. dr. M.J.V. Van Bogaert, who acted as secretary.

Appendix 1 contains the curricula vitae of the members of the committee.

## General information regarding Wageningen University

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### *Educational programme assessments in Life Sciences at Wageningen University*

A total of 31 educational programmes of Wageningen University which could not be included in a national disciplinary assessment had to be assessed in 2012 in order to apply for reaccreditation. In consultation with QANU, Wageningen University decided to divide the work among fourteen committees in the period between March and July 2012. For each site visit different expert committee members were invited to assess the programmes. In addition to the expert committee members, two non-expert committee members were involved as core members in all site visits and programme assessments. These non-expert committee members were the chairman, Prof. F. Zwarts, and the educational expert, Mrs. R.L. Prenen, MSc. This construction was chosen to guarantee consistency between the fourteen assessments as well as to respect the diversity between the programmes. Prior to the site visits an extended kick-off meeting was held in February 2012, during which subjects applicable to all programmes were discussed (for the programme, see Appendix 6). In addition to the core members of the committee, an expert member (Prof. E. Van Damme), a student member (Mrs. T.I.E. Veldkamp, BSc) and both secretaries to the committees (Dr M.J.V. Van Bogaert and Mrs. M. Maarleveld, MSc) were present. During the kick-off meeting, interviews were held with representatives of the educational institute, educational committees, study advisers, examining boards and alumni. The findings of the kick-off meeting were used as input for the fourteen site visits and are incorporated in the committee reports on the 31 educational programmes. Based on the information received in the first five site visits, the core committee members held another interview with the examining boards and a selection of study advisers. This meeting was held on 6 June 2012 and provided additional insight into the functioning of and relation between the examining boards and study advisers.

### *Wageningen University*

Wageningen University is comprised of one faculty, the Faculty of Agricultural and Environmental Sciences. The Faculty consists of 80 chair groups, arranged in five departments. All educational programmes, bachelor and master, are organized by the

Education Institute (OWI). The Board of the OWI is responsible for the content, quality and finances of the educational programmes. Every programme has a programme director and a programme committee, consisting of equal numbers of students and academic staff. The programme committee is responsible for the content and quality of the programme, though in a formal sense this is subject to approval by the Board of the OWI. The programme director is responsible for the realization of the programme.

The courses are provided by staff of the chair groups, the 'supply side'. The programme committees are considered the 'demand side', with the programme director being the 'matchmaker'.

Wageningen has four examining boards, usually consisting of five to eight people from different disciplines. Before the site visit period, these boards were in the process of strengthening the quality management of assessment processes and procedures.

Each programme has one or more study advisers, who are tasked with supporting students throughout their study career. Study advisers provide information and invite students for progress evaluations and meetings to plan the student's individual curriculum. Each student needs the study adviser's approval for the elective parts of the programme s/he has chosen.

#### *Internationalization*

Wageningen University has an international reputation, in terms of both research qualities and the number of international master students. The committee especially considered the latter point since there are both possible drawbacks and advantages to having many international students. Extensive discussions during the site visits made it clear to the committee that despite the fact that it will always be difficult to assess the quality of enrolling international students, the programme managements are well aware of the imperfections of its procedures and have tightened the selection in the past few years. Overall the committee thinks that the advantages of having many international students outweigh the disadvantages.

## **Working method of the assessment committee**

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#### *Preparation*

After receiving the critical reflection, the project manager checked the quality and completeness of the information provided. After approval, the critical reflection was forwarded to the committee, in both printed form and digitally. In addition, the committee members selected and read a total of 15 theses for each programme that was assessed (see Appendix 8).

Before the site visit the project manager created a draft programme for the interviews (see Appendix 6). The draft programme was discussed with the chair of the committee and the coordinator of the educational institute. As requested by QANU, the coordinators of the programmes carefully composed a select and representative panel for all interviews.

#### *Site visit*

During the initial meeting at the start of each site visit, the committee members discussed among themselves their findings regarding the critical reflection and the theses. They also discussed their task and working methods and the proposed domain-specific requirements (see Appendix 2).

During the site visit, interviews were held with representatives of the programme, students, staff members, the Educational Committee, and a student adviser. The examining boards were interviewed in the extended kick-off meeting, as can be read on page 6. The committee also received additional information, for example, study books and reports from the meetings of the Educational Committee. This information was examined during the site visit. When considered necessary, committee members could read additional theses during the site visit. A consultation hour was scheduled to give students and staff of the programmes the opportunity to talk to the committee. No requests were received for the consultation hour.

The committee used part of the final day of the site visit to discuss the assessment of the programmes and to prepare a preliminary presentation of the findings. The site visit concluded with an oral presentation by the chairman of the general assessment and several specific findings and impressions of the programme.

### *Report*

After the site visit the project manager wrote a draft report based on the committee's findings. The draft was first commented upon by the committee members and then sent to the faculty to check for factual irregularities. All comments made by the faculty were discussed with the chair of the committee and, if necessary, with the other committee members. After revision, the report became official.

### *Decision rules*

In accordance with the NVAO's Assessment Framework for Limited Programme Assessments (as of 22 November 2011), the committee used the following definitions for the assessment of each individual programme, both of the standards and the total programme.

### **Generic quality**

The quality that can reasonably be expected in an international perspective from a higher education bachelor's or master's programme.

### **Unsatisfactory**

The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.

### **Satisfactory**

The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.

### **Good**

The programme systematically surpasses the current generic quality standards across its entire spectrum.

### **Excellent**

The programme systematically well surpasses the current generic quality standards across its entire spectrum and is regarded as an (inter)national example.



## Summary judgement

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This report provides the findings and considerations of the Life Sciences committee on the bachelor and master programmes in Landscape Architecture and Planning at Wageningen University. The committee assessment is based on information in the critical reflection, interviews during the site visit and a selection of theses.

### **Standard 1: Intended Learning Outcomes**

The programmes are concerned with activities of shaping and governing landscapes on various scales and on the experience and use by people. The bachelor programme has an impressive and well-thought out profile. There are two majors with sufficient common ground as well as separated features, resulting in a balanced profile of the programme. The profile of the master programme is less clear. The Domain Specific Reference Framework is considered a good starting point, but the elaboration into programme objectives could be improved. The objectives and profile of the major master specialization, landscape architecture, are well-defined. The second specialization, spatial planning, in combination with landscape architecture, has satisfactory profile and objectives. However, a better description of the differences between landscape architecture and spatial planning would be advantageous. It is not clear what the present position is of the third specialization, socio-spatial analysis, and what it is aiming at. The arrival of a new chair holder in Cultural Geography has led to reconsideration of this specialization. In fact, the programme is now discussing the introduction of five tracks to replace the three specializations.

The committee is assured that although the present situation of the three specializations is not optimally balanced, the programme management is aware of the issues in their profile and is in the process of changing.

The learning outcomes of both programmes are satisfactory, but rather general. To more clearly specify the intended learning outcomes for the bachelor programme, they were elaborated into 29 more specific learning outcomes. In addition to the general intended learning outcomes for the programmes, very good to excellent learning outcomes are described for each course. They provide students with an accurate insight in what they can expect from a course and what is expected from them. For both programmes the critical reflection showed the coverage of the Dublin Descriptors. The committee is convinced that the level of the programmes is as should be expected for a bachelor's respectively master's programme.

The programmes are well aware of the requirements of the professional field, which is regularly consulted on their opinion of the programme's intended learning outcomes. The programmes found a good balance between academic focus and the professional field. The orientation of the programmes is clearly academic. Although the discipline originates from a professional setting, Wageningen University was and still is clearly at the forefront of academising the discipline.

The committee concludes that this standard is good for the bachelor programme. The master programme is now considered satisfactory. The programme is in a transition period and the committee is confident that the issues will soon be resolved.

## **Standard 2: Teaching-Learning Environment**

All Wageningen programmes provide a lot of freedom to the individual student, while at the same time chair groups and their research strongly influence the courses offered. The study advisor has a crucial role in supporting students in their elective choices and works in the situation of the Landscape Architecture and Planning programmes, assuring that all students follow a qualitative and coherent programme.

The relation between intended learning outcomes and the components of the curriculum is present, although some components – like ethics and philosophy – are only implicitly present in the bachelor programme. Content and structure of the curricula enable students to achieve the intended learning outcomes.

The curricula are among the best in the world in terms of landscape architecture. The Spatial Planning specialization is satisfactory and comparable with other Dutch Spatial Planning programmes. The adding of design components to spatial planning is a unique Wageningen feature of the spatial planning specialization/major, distinguishing it from other programmes.

The quality of the courses is good, as are the course descriptions in the Study Handbook as well as the course guides that are written for each course. Both programmes obtained a good level of multidisciplinary without lowering their quality or depth. Multidisciplinary is primarily reflected as integration within the broad field of Landscape Architecture and Planning, as students learn to communicate and work with colleagues from the other specializations.

The programmes are based on two learning principles, reflective and experiential learning. The studios are very useful teaching forms for integrating various subjects and incorporating the learning principles. The concept of adding supportive courses to the studios is considered a good way to provide students with fundamental knowledge.

Overall, recommendations by the previous assessment committee were taken up by the programmes. The only recommendation repeated by the present committee is that the bachelor programme should look into the possibilities of an internship.

A number of the staff members involved in the programmes are very well known internationally for their research. Wageningen University focuses on the educational quality of its lecturers. The small size of the university and the programmes in combination with the favourable student-staff ratio lead to easy accessibility of the staff members. Students appreciate and value the contacts with lecturers and are very satisfied with their educational qualities. Programme specific services seem to be more than adequate.

The first and second year of the bachelor programme and the first year of the master programme have a fairly high number of contact hours, almost 50% of the total study load. The perceived study load is mostly adequate for the supportive courses, but is extremely high for the studios. Although the study load is rather high for certain courses (studios), the bachelor programme is feasible in three years and the master programme in two years.

Wageningen University has an international reputation, in terms of both research qualities and the number of international master students. The programme management is well aware of the imperfections of its enrolment procedures and has tightened the selection in the past few years.

### **Standard 3: Assessment and achieved learning outcomes**

The Examining Boards are in the process of strengthening their role in ensuring the quality of assessment and seem committed to formalizing the assessment system. Having only four Examining Boards is stimulating the consistency and equality of the procedures, at the same time these four Examining Boards are responsible for a total of 49 programmes. This might lead to a certain distance from the programmes, making it difficult for the Examining Boards to really be in control at the programme level.

The programmes in Landscape Architecture and Planning are on schedule to implement the new initiatives. The use of course guides makes the assessment procedures very clear and transparent, and they are very useful to the students. The committee especially values the use of the rubric for the master thesis, which was adapted to include the assessment of design competences. The programme director appears to be sufficiently in control of the assessments.

The committee is of the opinion that with the current pressure on graduating in time in the Netherlands, the number of possible re-sits at Wageningen University is outdated. The success rates of students in the bachelor in Landscape Architecture and Planning are below the Wageningen average. The success rates of students in the master programme are at the Wageningen average.

The overall grading of bachelor theses was considered rather optimistic, especially for the older theses. The first thesis products after introduction in 2007-2008 led to changes in the curriculum. In the present curriculum the combination of products fulfil the requirements that can be expected from bachelor graduates in Landscape Architecture and Planning. The committee overall agreed with the assessments of the master theses. It appears that the use of the rubric is having a positive effect on the verification of the grades. The master theses are of high quality.

### **General conclusion**

The committee assesses the standards from the Assessment Framework for Limited Programme Assessments in the following way:

#### *Bachelor programme in Landschapsarchitectuur en ruimtelijke planning:*

Standard 1: Intended learning outcomes	good
Standard 2: Teaching-learning environment	good
Standard 3: Assessment and achieved learning outcomes	satisfactory
General conclusion	satisfactory

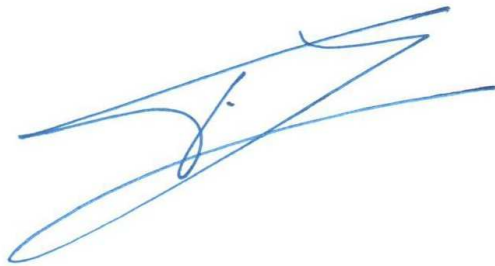
#### *Master programme in Landscape Architecture and Planning:*

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	good
Standard 3: Assessment and achieved learning outcomes	good
General conclusion	good

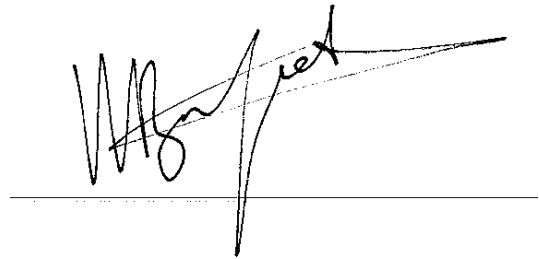
The chair and the secretary of the committee hereby declare that all members of the committee have studied this report and that they agree with the judgements laid down in it.

They confirm that the assessment has been conducted in accordance with the criteria relating to independence.

Date: 26 October 2012



Prof. F. Zwarts



dr. M.J.V. Van Bogaert

## Description of the standards from the Assessment Framework for Limited Programme Assessments

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### Standard 1: Intended learning outcomes

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

#### **Explanation:**

As for level and orientation (bachelor's or master's; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme.

### 1.1. Findings

In this standard the committee assesses the programme's objectives and profile, intended learning outcomes, and level and orientation. Furthermore, this standard describes the requirements of the professional field and discipline.

### Programme objectives and profile

#### *Bachelor programme*

The critical reflection states that the programme is concerned with the activities of shaping and governing landscapes on various scales. The bachelor programme focuses on the process of intervention in landscapes to create new or revitalized places by means of planning and design and with sound academic reflections on this process. Its aims are to create, enhance, maintain, and protect places so they can be functional, aesthetically pleasing, meaningful, sustainable, and appropriate to diverse human needs and goals. The programme focuses primarily on metropolitan landscapes in a dynamic global context of cultural, ecological, technological, economic and political transformations.

The programme has two majors: Landscape Architecture and Spatial Planning. They share common ground, but the first is primarily oriented on designing and constructing new landscape shapes, while the second concentrates on the governance of purposeful interventions in landscapes to meet the diverse needs of society.

The programme is the only academic bachelor programme in the Netherlands with a focus on landscape architecture. Spatial planning can also be studied at other Dutch universities. Universities of applied science prepare students for entering and practising landscape architecture as a profession, while the Wageningen programme focuses more on methods and approaches.

According to the critical reflection, the programme faces three important challenges:

- An opportunity to deliver a crucial contribution to sustainable development;
- A redefinition of the roles of landscape architects and spatial planners in society;
- An increasing responsibility to legitimize and substantiate design and planning practices.

#### *Master programme*

The master programme in Landscape Architecture and Planning focuses on the human activities that shape and govern landscapes on various scales and how these landscapes are experienced and used by people. It emphasises the process of intervention in landscapes to

create new or revitalized places by means of planning and design, and on academic reflection on this process. Landscape architecture and spatial planning are vital for the delivery of sustainable development. They focus on key challenges that determine and demand important landscape transitions.

The programme builds on the knowledge, skills and understanding of planning and design and the knowledge and understanding of the landscape acquired in a prior, relevant bachelor programme. The added value of the master programme is:

- Advanced and specialized knowledge;
- Professional and academic skills;
- Independent, critical and reflective attitude;
- International orientation.

The programme offers three specializations.

- Landscape Architecture;
- Socio-spatial Analysis;
- Spatial Planning.

The master programme, similar to the bachelor programme, is unique in the Netherlands in its focus on landscape architecture from the life sciences approach. Spatial planning can be studied at the academic level at other Dutch universities.

The initial setup of the master programme was based on three existing chair groups. Although the programme is demand – or student – driven, there are clearly also supply-driven aspects. The interview with management revealed that with the arrival of a new chair holder in cultural geography, changes in the choice for master specializations were discussed, especially the position of the socio-spatial analysis specialization. The present thought is to create a programme with five master tracks that connect to the bachelor programme in Landscape Architecture and Planning. By introducing new tracks, the programme aspires to differentiate between more practical and more scientific/research-oriented avenues. Discussions within the management team are still going on about how to change the master programme to meet the current demands of students and the professional field as well as to make a clear differentiation between the specializations.

### **Intended learning outcomes**

#### *Bachelor programme*

The nine intended learning outcomes are described in table 1. They are elaborated in 29 subsidiary learning outcomes, which are provided in Appendix 3. The two majors have much in common, but the most important differences are:

- Graduates of the Landscape Architecture major are skilled in architectural composition, the role of different sketches and maps, and the exploration of relevant reference situations (learning outcome 2). They are skilled in the application of free hand drawing techniques and computer graphic software (learning outcome 3) and have specific knowledge and skills to handle plant material, horticultural applications and construction materials (learning outcome 4).

- Graduates of the Spatial Planning major are able to distinguish methods for collaborative problem-solving in interdisciplinary and multidisciplinary settings and basic skills to manage public facilitation and stakeholder communication. They have knowledge of a diversity of planning instruments and are able to judge the performance of these instruments for implementing planning policies (learning outcome 2). They are equipped to perform landscape, stakeholder and impact analyses with the help of GIS and SPSS software (learning outcome 5).

#### *Master programme*

The intended learning outcomes of the master programme are provided in table 2.

### **Level and Orientation**

#### *Bachelor programme*

The critical reflection states that the learning outcomes are at an introductory and intermediate level and correspond to the Dublin Descriptors for bachelor programmes. For example, students gain knowledge and understanding of design and planning practices, theories and methods (learning outcomes 1 and 2), social and natural processes (learning outcome 4) and research methods (learning outcome 5). They apply this knowledge to make an analysis of a design or planning problem and support it with sustained arguments (learning outcome 4). They learn to judge which planning and design solutions fit best in a number of controlled projects of increasing complexity (learning outcome 2). Students learn to communicate problem analyses and proposals visually, orally and in writing (learning outcome 3). Students are encouraged to be critical and self-reflective (learning outcomes 7 and 9).

The academic orientation aims to teach students how to devise plans and designs that are substantiated by academic knowledge and challenges them to reflect academically on their own planning and design practices and those of the professional field. They are taught how to apply research findings from the relevant social and natural sciences.

During the site visit, the committee looked into the issue of whether it is possible to find a job after graduating from the bachelor programme. It was understood that the professional field is not particularly interested in hiring bachelor graduates and prefers hiring master graduates. In addition, in the Netherlands the profession of landscape architecture is protected by the Dutch Architects Title Act. Graduates from the master programme with a specialization in Landscape Architecture qualify for the biennial professional training period that leads to registration in the Register of Architects. At the moment, nearly all bachelor graduates continue their studies in the master programme.

#### *Master programme*

According to the critical reflection, the intended learning outcomes correspond to the Dublin Descriptors for master programmes. Students acquire knowledge, understanding, skills and attitudes at an advanced level. For example, the understanding of concepts, approaches, theories, methodologies and practices is deepened (learning outcome 1). Graduates are able to integrate planning and design knowledge with multidisciplinary knowledge on the nature and functioning of landscapes to produce a theoretical framework for a design, planning or research project (learning outcomes 2, 4 and 5). They have the ability to develop and execute design, planning and research projects independently and in a complex and unfamiliar geographical, cultural and political/institutional context (learning outcomes 2 and 5). They are able to demonstrate ethical responsibility in defining problems, opportunities and limitations in design and planning, which are about making judgements in uncertainty (learning outcomes

2 and 7). They are able to present scientific views, designs, plans and research visually, orally and in writing at an advanced level (learning outcomes 3 and 7). Finally, they are able to reflect on their personal academic and professional development and demonstrate an attitude of life-long learning. This is done in a largely self-directed or autonomous way (learning outcomes 7 and 9).

The programme is academic and research-oriented. Students learn to deliver plans and designs that are substantiated by academic knowledge and to perform academic research that reflects on their own planning and design practices and those of the professional field.

More than 80% of the graduates found a job in the domain of landscape architecture and spatial planning. Not more than 6% were unemployed one year after graduation.

### Requirements of the professional field and discipline

The subject-specific reference framework (Appendix 2) deals with the requirements of the professional field and discipline. The programme follows the basic structure of core competences suggested by the European Council of Landscape Architecture Schools (ECLAS). It divides the domain-specific learning outcomes into: 1) knowledge, skills and understanding of planning and design, and knowledge and 2) understanding of the nature of the landscape. It explicitly addresses academic skills and attitude.

The Programme Committee (PC) meets twice a year with the External Advisory Committee to discuss the programme and to tune the intended learning outcomes to the needs and wishes of prospective employers.

Learning outcomes	Core categories	After successful completion of the programme, the graduate:
Domain-specific learning outcomes	Planning and design	1 is able to distinguish different design and planning practices, theories, concepts and approaches
		2 has the creativity and power of imagination necessary to represent a future landscape and spatial organization and can distinguish different planning or design methods.
		3 is able to present models, alternatives and potential scenarios of past, present and future landscape and spatial organization and can distinguish different planning or design methods
General academic learning outcomes	Nature of the landscape	4 is able to carry out a descriptive and critical analysis of the physical and social dimensions of the landscape and its historical development under the influence of natural and cultural processes in order to understand the multidimensional aspects of landscape.
	Science and research	5 is able to execute landscape research under supervision: the student is able to develop a research proposal, extract research questions from design and planning practice, and conduct a literature review.
	Academic skills and attitudes	6 has scientific curiosity and is pro-active
		7 is critical, self-reflective and able to express an opinion
8 is able to work according to planning and is reliable, honest and incorruptible both in individual and group work		
		9 is able to design and plan his/her own learning path (under supervision) based on continuous evaluation, personal knowledge, skills and performance.

**Table 1:** Intended learning outcomes of the bachelor programme in Landscape, Architecture and Planning



Learning outcomes	Core categories	After successful completion of the programme, the graduate:		
Domain-specific learning outcomes	Planning and design	1 is able to compare design and planning theories, concepts and approaches, can distinguish different traditions in design and planning, and is able to place his/her own discipline in a multidisciplinary framework		
		2 is able to develop scientifically legitimized designs and plans on interrelating spatial scales and with different temporal horizons and is able to evaluate the consequences of alternative choices		
		2a for landscape architecture: is creative and effective in reorganising data and field research to synthesize a specific design problem and propose potential and alternative consequences of landscape interventions with a compelling degree of detail.		
	General academic learning outcomes	Nature of the landscape	2b for spatial planning: can link current and future initiatives, projects and strategies that influence the spatial organization (its use, management, design and lay-out) from different stakeholder activities and perspectives.	
			2c for socio-spatial analysis: is able to evaluate the significance of different types of socio-political discourses on space, recognize and diagnose spatial and urban-rural conflicts, propose solutions for these conflicts and improve socio-spatial quality	
		Science and research	3 is able to present scientific views, designs, plans and research to members of the scientific and non-scientific communities visually, orally and in writing and is able to express him/herself in English	
			4 is able to carry out a critical and normative landscape analysis on interrelated scales (regional – local – site) or a socio-spatial analysis by interpreting multidimensional data with the use of consistent theoretical concepts in order to define a clear (potential) problem and judge the opportunities and limitations for design and planning.	
			5 is able to independently formulate and execute scientifically based landscape research, planning research, socio-spatial research, design research or research-by-design	
			Academic skills and attitude	6 has an independent and critical attitude, is able to reason logically and distinguishes matters of primary and secondary importance
				7 is able to reflect on personal action and thinking, is able to reframe, extend and apply knowledge, has skills to learn contextually, has an open attitude to discussion and is conscious of ethical matters
8 is able to plan his/her work processes independently and is honest, incorruptible, efficient, goal-directed, loyal and flexible				
		9 is able to design and plan his/her own learning processes based on continuous reflection upon personal knowledge, skills, attitudes and performance		

**Table 2:** Intended learning outcomes for the master programme in Landscape Architecture and Planning

## 1.2. Considerations

In general, the committee considers the bachelor programme to be strongly positioned, with only very minor remarks that can be made. The committee has read and discussed the objective and profile of the two programmes and observes a difference between them. The bachelor programme has an impressive and well-thought-out profile, which is written down very well in the critical reflection. There are two majors with sufficient common ground as well as separate features. According to the committee this results in a balanced profile of the programme.

The profile of the master programme is less clear. The committee considers the document Tuning Landscape Architecture Education in Europe, mentioned in the domain-specific framework (see Appendix 2), to be a good starting point for the programme objectives. This guidance covers the design, planning and management of landscape. However, in the

programme objectives of the critical reflection, management is not mentioned. In addition, the critical reflection is not consistent in its terminology.

Initially, the reason for introducing the three present specializations puzzled the committee. The objectives and profile of the landscape architecture specialization are well-defined and rooted in the chair groups involved in the programme. This specialization is unique in the Netherlands, which is reflected in its position in the programme. It receives a great deal of attention and is the biggest in size.

The second specialization, spatial planning, seems a logical choice in combination with landscape architecture, and the profile and objectives are satisfactory. Nevertheless, the committee wonders about the exact position of the spatial planning specialization; is it a stand-alone specialization – as in the bachelor programme – that is complementary to the landscape architecture specialization, or does it support the latter?

Regarding content, the critical reflection insufficiently separates the objectives of the spatial planning and landscape architecture specializations. The interview with the programme management revealed that despite the choice for creating separate specializations, all of them are considered essential in the programme. The programme management agreed with the committee's observation that a better description of the differences between landscape architecture and spatial planning would be advantageous.

The committee found the position of the third specialization, socio-spatial analysis, even more confusing. It is minimally addressed in the critical reflection, and it was not clear to the committee what the position of this specialization is and what it is aiming at. The interviews during the site visit made it clear that the present situation is a relic of the past. The arrival of a new chair holder in Cultural Geography has led to reconsideration of the third specialization. In fact, the programme is now discussing the introduction of five tracks to replace the three specializations.

Based on the interviews during the site visit, the committee feels certain that although the present situation of the three specializations is not optimally balanced, the programme management is aware of the issues in their profile and is in the process of changing them.

The learning outcomes of both programmes are adequate, but rather general. Although the critical reflection of the bachelor programme describes a logical difference between the two majors, this is not reflected in the intended learning outcomes. Also for the master programme, the differences in intended learning outcomes between the specializations are very limited, which adds to the isolated position of the specializations in the programme.

The committee noticed that intended learning outcomes are described for each course as well as for the programmes. The definition and formulation of the intended learning outcomes of the courses for both programmes in the Study Handbook were considered to be very good to excellent. They provide students with an accurate insight into what they can expect from a course and what is expected from them.

The committee is of the opinion that the programmes are well aware of the requirements of the professional field. The professional field is regularly consulted on their opinion of the programme's intended learning outcomes. The committee considers the programmes to have found a good balance between an academic focus and the professional requirements. In the present situation, students are not looking for a job after graduating from the bachelor

programme. This might change in the future when the financial conditions for master programmes will be different. The committee concludes that the intended learning outcomes of the bachelor programme reflect adequate preparation for students who will not continue with a master programme.

The orientation of the programmes is clearly academic according to the committee. As described in the critical reflection, the discipline originates from a professional setting. Wageningen University was and still is clearly at the forefront of making the discipline more academic, and this is reflected in the aims and objectives of the programmes. Starting in the bachelor programme, the focus on academic skills is clear. In the master programme, an additional step is taken in this respect.

For both programmes the critical reflection showed that the Dublin Descriptors are covered. The committee is convinced that the level of the programmes is as should be expected for a bachelor or master programme, respectively.

In summary, the committee concludes that this standard is good for the bachelor programme. The master programme is now considered satisfactory. The programme is in a transition period, and the committee is confident that the issues raised during the site visit and described in this report will soon be resolved.

### **1.3. Conclusion**

*Bachelor programme in Landschapsarchitectuur en ruimtelijke planning:* the committee assesses Standard 1 as **good**.

*Master programme in Landscape Architecture and Planning:* the committee assesses Standard 1 as **satisfactory**.

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## Standard 2: Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

### Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

## 2.1. Findings

### Curriculum and coherency of the programmes

The academic year of Wageningen University consists of two semesters, each with 3 periods. In periods 1, 2 and 5 (six weeks each) two courses are taught, one in the morning and one in the afternoon. Periods 3 and 4 are short periods with 4 weeks of teaching and only one course each. Period 6 lasts nine weeks. Each year students can take one exam and two resits for each course. Currently, this system is being reviewed, concerning the number of resits and the timing of the exams.

Initially, the committee had some reservations regarding the coherency of the programmes. This is the result from the large number of free choice credits most programmes provide to their students. From the Critical Reflection and the interviews it became clear that the study adviser has a major regulatory role in the selection of courses for the free choice credits. The study adviser and student discuss the students' wishes and possible plans. The study adviser might ask feedback from one of the chair holders prior to advising the student's request of electives. If a request deviates from the standard, the study adviser will assess the programme for coherency, and the Examining Board has to approve it explicitly.

#### *Bachelor programme*

The intended learning outcomes have been translated into a curriculum (see table 3). A description of each course can be found in the Study Handbook, which was provided to the committee members and is available on the website of Wageningen University. The two majors (Landscape Architecture and Spatial Planning) have 102 credits in common and 48 specialist credits.

To ensure coherence in the curriculum, a number of guiding principles are applied:

- The backbone of each major consists of a series of successive design and planning studios. Supportive courses are arranged around these studios;
- The programme consists of a set of introductory, intermediate and advanced courses;
- The first-year courses aim at introducing the basics of design and planning and the nature of the landscape. The second- and third-year courses aim at deepening knowledge and skills;
- The first-year courses give students an integrated notion of design and planning, the second- and third-year ones help them to develop an identity as a landscape architect or spatial planner;
- The third year also enables students to deepen or broaden their knowledge and skills in a study area of choice. A minor or elective of 30 credits forms part of each bachelor programme.

The curriculum and courses have been developed to achieve the intended learning outcomes. A matrix was provided in the critical reflection which indicates that all learning outcomes are dealt with in multiple courses.

In the elective part in the third year, students are able to choose their own courses but can also follow one of the 50 minors of Wageningen University. Students may choose to go abroad or follow a minor that will prepare them to enter a different master programme than Landscape Architecture and Planning. From the interviews it became clear that the study advisor has a major regulatory role in the selection of the electives. The study advisor and student discuss the latter's wishes and possible plans for a master programme. The study advisor might ask for feedback from one or more chair holders prior to advising the student. If a request deviates from the standard, the study advisor will assess the proposal for coherency, and the Examining Board has to approve it explicitly.

#### *Master programme*

The curriculum and courses have been developed to achieve the intended learning outcomes provided in standard 1 of this report. The critical reflection provides a matrix in which each course is related to the nine intended learning outcomes.

The curriculum is provided in table 4. The two-year programme has a common part of 24 credits, a specialization part of 78 credits, and 18 credits of free choice. The three specializations are: Landscape Architecture, Socio-spatial Analysis, and Spatial Planning. The programme is thesis-oriented, students are prepared for their thesis by following theoretical and methodological courses and one reflecting on professional practices.

The core of the first year consists of the *Atelier Landscape Architecture and Planning* and three disciplinary supportive courses (an advanced theory course, a methodology course and a course that reflects on advances in global professional practice). In the atelier students work together in a multidisciplinary team to carry out design research and a planning/design project for a client. The objective is to trigger students to reflect on their personal functioning in a multidisciplinary team and the functioning of the team in relation to a client.

The second year is more individually organized. Students have to show they are capable of delivering a solid piece of scientific research in their thesis, including writing the research proposal. In the Landscape Architecture specialization, students have to demonstrate design skills by translating their findings into a landscape design. The thesis of 36 credits is an individual project, but students are encouraged to connect their projects in a broader context. In addition to the thesis, the student selects a second thesis or an internship of four to six months (24 to 30 credits). In general, Dutch students with an academic background choose an internship. Students with a university of applied science background and international students often choose a second thesis.

Students have 18 credits of free choice, with which they can select courses that not only contribute to domain-specific knowledge and skills, but also to the student's general academic skills. Students can opt for supportive courses of the other two specializations or courses from a different field of interest. The optional courses should be coherent, and the connection with the programme has to be substantiated. In the master programme as well, the study advisor plays a major role in safeguarding the coherency of the individual programmes.

<b>Year 1</b>		<b>EC</b>			<b>EC</b>
<b>First Semester</b>		<b>Second semester</b>			
Introduction Landscape Architecture and Planning: Experiences	3	Introduction Geo-Information Sciences and Graphics			6
Ecology 1	3	Landscape Geography			12
Introduction Environmental Sciences	6	Integrated Studio: The Metropolitan Landscape			6
Mathematics 1 (RO)	3	Studio Planning Basics			3
Statistics 1 (RO)	3	Studio Design Basics			3
Introduction Landscape Architecture and Planning: Theory	3				
Human Geography	6				
Soil and Water 1	6				
<b>Year 2</b>					
<b>Third semester</b>			<b>Fourth semester</b>		
Landscape Architecture and Aesthetics	6	Landscape Economics and Politics			6
Spatial Planning Theory and Methodology	6	Cultural and Historical Geography (RO)			6
Mathematics 2	3	Environmental Psychology (RO)			6
Statistics 2	3				
Landscape Engineering	6				
<b>Major Landscape Architecture</b>					
Free-Hand and Digital Visualization 1	3	Free-Hand and Digital Visualization 2			3
Planting and Construction	3	Studio Urban Design			9
Studio Site Design	6				
<b>Major Planning</b>					
Methods for Operational Planning	6	Studio Operational Planning			6
		Methods for Strategic Planning			6
		Studio Strategic Planning			6
<b>Year 3</b>					
<b>Fifth semester</b>			<b>Sixth semester</b>		
Research Methodology for Human Environment	6	Minor or free choice courses			30
<b>Major Landscape Architecture</b>					
Garden and Landscape Architecture: a Design and Cultural History	6				
Studio Regional Design	6				
Thesis Landscape Architecture	12				
<b>Major Spatial Planning</b>					
Public Administration and Environmental Law	6				
Transport, Traffic and Infrastructure	6				
Thesis Spatial Planning	12				

**Table 3:** Curriculum of the bachelor in Landscape Architecture and Spatial Planning

<b>Common Part</b>	<b>EC</b>	<b>EC</b>
<b>Year 1</b>		<b>Year 2</b>
Philosophy of Science for Landscape Architects and Planning	3	-
Modular Skills Training	3	
Atelier Landscape Architecture and Planning	18	
<b>Free Choice</b>		
Free choice or refresher courses	18	
<b>Landscape Architecture Specialization</b>		
<b>Year 1</b>		<b>Year 2</b>
Reflections on Landscape Architecture Practices	6	Thesis Landscape Architecture
Design Theory	6	Intern Landscape Architecture
Advanced Design Research Methods	6	or Thesis Landscape Architecture
		36
		24
<b>Socio-spatial analysis Specialization</b>		
<b>Year 1</b>		<b>Year 2</b>
Space, Place and Society	6	Thesis Socio-spatial Analysis
Cultural Geography	4	Internship Socio-spatial Analysis
Advanced Socio-spatial Research Methodology	6	or Thesis Socio-spatial Analysis
		36
		24
<b>Spatial Planning Specialization</b>		
<b>Year 1</b>		<b>Year 2</b>
Reflections on Spatial Planning Practices	6	Thesis Land Use Planning
Planning Theory	6	Internship Land Use Planning
Advanced Planning and Research Methods	6	or Thesis Land Use Planning
		36
		24

**Table 4:** Curriculum of the master in Landscape Architecture and Planning

### **Multidisciplinarity**

Wageningen University aims to offer programmes with a multidisciplinary and holistic approach. This is meant to stimulate students to develop a broad view and a wide range of interests. Most of the courses are attended by students from different programmes, creating a setting that favours multidisciplinary education. This could also lead to a possible friction between breadth and depth. The committee assessed whether students receive a multidisciplinary programme with sufficient depth, making them experts in a specific discipline.

In the interview students mentioned that the Landscape Architecture and Planning programme has sufficient breadth and depth. They claim that the core programme provides them with a broader perspective of the domain while allowing them to become specialists in a certain part of that domain. In the bachelor programme the electives give students opportunities to choose for more breadth or depth. The master programme focuses initially on the specialization, but also provides integration of the disciplines, especially in the Atelier.

### **Teaching methods**

Wageningen University strives to train its students to become academics with domain knowledge, a multidisciplinary attitude, interested in problem-solving, and an international orientation with a multicultural attitude. The programmes therefore work with small, diverse student groups to stimulate the interaction between students and lecturers. A variety of didactic and learning methods are offered, including lectures, tutorials, group work, practical training, excursion and individual papers. According to the critical reflection, the teaching methods prepare graduates to work in multidisciplinary teams as well as individually, and



often in a global context. Appendix 9 provides an overview and explanation of the teaching methods.

The redefinition of the roles of landscape architects and spatial planners in society requires a process of systematic self-reflection and a thorough review of the disciplines. Flexibility in the graduates is considered essential to increase their innovative capacity and adaptive potential. Students learn that there are no clear-cut methods, tools or approaches to apply to all planning and design contexts. The assignments in the design and planning studios and supportive courses are closely connected to real planning and design processes and contexts.

Students go through a learning cycle of concrete experiences, reflective observation, abstract conceptualization and active experimentation. During the many field excursions students become acquainted with a variety of different landscapes. In studios and in some supporting courses, students are confronted with real cases and projects in which they participate and on which they reflect.

Reflexive and experiential learning materialize in studio-based teaching: students work individually or in small groups on planning and design proposals for landscape interventions. Supervision and guidance include frequent consultations and presentations. Excursions, lectures, short experiments and consultation hours support the studios.

The programme committee, lecturers and programme director decide on the best teaching methods for the learning outcomes of each course. Throughout the programme as well as in individual courses, a mix of teaching methods is offered. The committee asked the students about their experience of the teaching methods. Students were positive about the variety and considered that there was a good balance in teaching methods, especially in the bachelor programme. They especially appreciated the fact that staff members are easily approachable. Studios were mentioned as a very interesting and useful teaching method, and the *werkplaats* gives bachelor students a look into the 'real' world. In the master programme students have to write many essays, using theories to form their own opinion. According to the students this leads to critical thinking, and it was appreciated by most of them.

#### *Bachelor programme*

Approximately half (49%) of the first year of the bachelor programme are contact hours. In the second year this goes down to 42%. In the third year the number of contact hours is lower (36%) due to the writing of the thesis. According to the critical reflection, the evaluation scores on the mix of teaching methods rose over the past years up to 4.4 (out of 5). The choice for certain teaching methods is based on the learning principles of reflexive and experiential learning, which materialized in the studio-based learning method.

#### *Master programme*

The first year is intensive and offers a total of 708 contact hours, with over 50% dedicated to practical and group work, mainly in the *Atelier Landscape Architecture and Planning* and the *Studio Design Approaches* courses. In the second year, students do the internship (5-10 contact hours with university staff) and write a thesis (25-25 contact hours). In addition, contact hours with internship supervisors in the professional field vary greatly.

### **Improvements to the curriculum**

The individual programme committees are responsible for improving the curricula, although occasionally improvements are introduced for all programmes jointly. One example is the introduction of scheduling of electives in one semester, including minors.

Ideas for improvement usually come from online course evaluations. Detailed results are reported to the lecturers and Programme Committees. Summaries of the results are published on the intranet. In addition to the course evaluations, there are bachelor first-year evaluations, bachelor and master graduate evaluations, career surveys among alumni, and the Education Monitor.

The programme committees regularly discuss the outcomes of the evaluations and take action, when considered necessary. In addition to the online evaluations, many programmes hold panel meetings with students to obtain oral feedback on the courses and the programmes. Since many of the programmes are small and the attitude between students and lecturers is informal, many issues are often dealt with informally rather than in a formal procedure.

#### *Bachelor programme*

The programme actively worked on the recommendations given in the last assessment (2006). Out of the eight recommendations, seven were implemented in the curriculum. The eighth one involved including an internship in the bachelor programme. However, internship providers demand more experienced students and are not willing to provide internships to bachelor students.

The critical reflection states that despite an overall increase in the student evaluation score (3.7 to 4.1), there is still room for improvement. This particularly affects the academic level and attention paid to scientific approaches and research.

#### *Master programme*

In the previous assessment two recommendations were given: to improve the balance between the academic and the artistic component, and to make the curriculum more international. According to the critical reflection, both the balance in the curriculum and the international orientation of the programme were improved.

According to the student evaluations, the students' appreciation of the programme has increased over the years. Two points of attention still remain from these evaluations. First, more attention could be paid to the latest scientific research results and the development of academic writing skills. Second, students would appreciate having more interesting courses to choose from in the curriculum. Regarding the second point, the options have already been widened. The Programme Committee wants to increase the opportunities for international student exchange, and it has the intention to develop intensive programmes and a double degree with several European universities.

### **Staff**

Wageningen University staff members generally teach in several programmes, making it difficult to provide exact student-staff ratios. The estimated student-staff ratio is 6.7 for the bachelor programme and 6.9 for the master programme, which is about the Wageningen University average. The critical reflection states that the planning and design studios in the bachelor and the atelier in the master are especially intensive courses. For the design studios external lecturers from the professional field are hired to provide adequate supervision to the students.

Wageningen University introduced the University Teaching Qualification (Basis Kwalificatie Onderwijs, BKO) for new permanent staff and staff on tenured track positions. Quality of teaching is evaluated after each course, which also evaluates the course content, position of

the course in the curriculum, presentation and examination. Results of these evaluations form input for the annual performance and development interviews of staff members. Tailor-made training courses are provided by the Educational Staff Development unit for those interested, or as a result of the course evaluation

Staff members are required to be both an expert in their discipline and a skilful lecturer. This combination allows them to make use of new scientific insights in their teaching. Most lecturers hold a PhD degree. Many chair groups (26) are involved in the bachelor programme, and the staff is connected to a total of five graduate schools.

### **Programme specific services and student support**

Wageningen University has chosen to centralize all teaching facilities like lecture rooms, labs, rooms for group work and the university library on the new campus. The main education building is the Forum. The Orion education building is under construction and will add to the existing facilities in 2013. Education in the Social Sciences is concentrated in the Leeuwenborch building. Most Chair Groups are – or will be – located on the campus.

The fifth floor of the Forum building is allocated for the planning and design studios and for the ateliers. Facilities are present to provide for all teaching methods. In the Gaia building, facilities are provided for students working on their thesis project. Both in the critical reflection and student interviews, it was mentioned that the number of students is quite high for the facilities available.

The critical reflection mentions the thriving study association, Genius Loci. This association has several committees and activities, e.g. the education committee that holds in-depth course evaluations with student panels. Close contact exists between the study association and the academic staff.

Although differences exist between programmes, all Wageningen programmes provide a lot of freedom for the individual student, making the programmes student-centred. The chair groups and their research strongly influence the courses offered, making the programmes also course-oriented. This makes the position of the study advisor crucial and demands certain qualities of him/her. The committee thinks that the study advisor should be a member of the academic staff to be able to support students in their choice for certain courses.

#### *Bachelor programme*

Study advisors support students to make well-considered choices within the programme, and they track and stimulate study progress. There are two study advisors for the programme, who supervise and advise students from both majors with respect to the curriculum content and design of their study. In the introduction week of the first year, students meet the study advisors and are told about the programme. After the first period of the first year, all students have an individual meeting with a study advisor. Students with a study delay are strongly recommended to make another appointment. Students with fewer than 30 credits after the first year will be advised to discontinue the programme. Early in the second year a plenary meeting is organized regarding specialization choice. In the first half of the second year, each student is invited to an individual meeting to discuss their personal development plan and their choice of major. At the end of the second year, a plenary session is organized to discuss the third-year elective. In the third year, the study advisors support students in their choice for a master programme. At all times students can make additional appointments with the study advisors. In the interview students mentioned that the study advisor was easily approachable for additional meetings.

### *Master programme*

Students are introduced to the study advisors during the introduction period. Further support and guidance are given on an individual basis. Students who have been conditionally admitted to the programme are invited for an intake interview before the start of the first year (if possible). During the first year all students meet with the study adviser at least once to discuss a master's study contract which has to be submitted for approval by the Examination Board. If a student experiences too much delay, s/he will be invited by the study advisor for a talk. Similar to the bachelor programme, students stated in the interview that the study advisor was easily approachable for additional meetings and was judged to be helpful in the process of deciding which courses to select.

### **Student intake and study load**

Students for the bachelor programmes are admitted on the basis of their pre-university qualifications. Individual admission of students who do not meet the standard requirements is centralized. The general admission requirements of master students are published on the internet, including detailed information on admission procedures. These requirements include a relevant bachelor degree, a grade point average of 70%, fluency in English, good skills in mathematics and statistics, and fundamental computer skills. Master students are admitted following approval by the Admission Committee. In total, there are four Admission Committees, reflecting the four domains. These Admission Committees consist of the relevant Programme Directors, supported by central staff. The four Admission Committees participate in the joint Admission Policy Committee. In total, approximately 5,600 applications are handled each year.

### *Bachelor programme*

Students with a Dutch pre-university degree are admitted if they have a Nature & Engineering, Nature & Health, or Economics & Society profile. Students with a Culture & Society profile need to follow and pass courses in Mathematics A or B and Geography or Biology.

The number of contact hours is 820, 709 and 606 for the first, second and third year, respectively. The lower number of contact hours in the third year is due to the thesis. According to the critical reflection, the perceived study load is slightly low, but the variance is quite high. According to the evaluation results, the study load of the individual courses is mostly adequate, while the study load of the few supportive courses is considered too low. The design and planning courses generally have a high study load; in exceptional cases, this is too high.

In the interview, students gave a similar analysis of their study load. They stated that their willingness to put in many hours is much higher in the studios. Also, they consider it more of a failure if they do not pass studios, while failing a supportive course is considered less of a problem.

### *Master programme*

The intake of students varied from 30 to 60 in the evaluation period. The intake of students with an international academic background grew significantly in this period, and the number of international applicants has grown from 52 to 165. The admission is managed by the Admission Committee. General admission requirements involve a relevant bachelor degree, a grade point average of at least 70%, and fluency in English. Design skills are assessed for

students who choose the Landscape Architecture specialization on the basis of a design portfolio. Enrolment of many international students has benefits, like internationalization. At the same time, there are potential negative effects, for example deficient language skills and the entrance quality level. Students confirmed in the interview that some students have an inadequate level of English, making it difficult to do group work. Also, cultural differences might lead to problems with collaboration.

The Landscape Architecture specialization is the most popular one, with 60% of the students. Spatial Planning is chosen by 30%, and 10% chooses Socio-spatial Analysis. On average, students have 20 contact hours per week in the first year. The second year is less structured, students are expected to be more self-directed in adhering to the plan agreed upon with their supervisor.

The perceived study load is considered reasonable by the first-year students. The perceived study load in the *Atelier* is relatively high. The study load of the *Thesis Landscape Architecture* course is exceptionally high due to high expectations set by the supervisors. Similar to the bachelor programme, students reported in the interview that the study load for the ateliers and thesis project is high, and lower for supportive courses.

## 2.2. Considerations

The committee has studied the various aspects of the teaching and learning environment of both programmes. Although differences exist between programmes, all Wageningen programmes provide a lot of freedom for the individual student, making the programmes student-centred. The chair groups and their research strongly influence the courses offered, making the programmes also course-oriented. This makes the position of the study advisor crucial and demands certain qualities of him/her. The committee thinks that the study advisor should be a member of the academic staff to be able to support students in their choice for certain courses.

Prior to the interviews, the committee was not convinced that the system would safeguard the issue of coherency in the individual programmes. However, after the interviews with students, management and a study advisor, the committee is convinced that this system works for the Landscape Architecture and Planning programmes at Wageningen University. The small size of the programmes and the beneficial student-staff ratio make it possible to use this individual approach. Each student is obligated to discuss his or her choice of courses with the study advisor. When an unusual individual curriculum is desired, this is discussed with the study advisor and, when necessary, with the chair holder concerned. Also, the curricula of all students have to be approved by the Examination Board.

For both the bachelor and the master programme, the committee has established that tables in the critical reflections provide an adequate and convincing representation of the relation between the intended learning outcomes and the components of the curriculum. The learning outcomes related to ethics and philosophy in the bachelor are only slightly reflected in the courses of the curriculum. In the interview with management, it was stated that these subjects are taken very seriously and are incorporated into several courses, but are not visible in the names of the courses. The committee understands that many subjects have to be dealt with in the programme, but stimulates the programme management to explicitly pay attention to philosophy in the bachelor programme and make it evident. The committee is convinced that the contents and structure of both curricula enable students to achieve the intended learning outcomes.

According to the committee, the curricula are among the best in the world in terms of landscape architecture. The Spatial Planning specialization is satisfactory and comparable with other Dutch Spatial Planning programmes. The committee advises the programmes to continue adding design components to spatial planning. This is a unique Wageningen feature of the spatial planning specialization/major, distinguishing it from other programmes.

The quality of the courses is good. The committee appreciates the course descriptions in the Study Handbook as well as the course guides that are written for each course. The course guide provides students with detailed learning outcomes, assessment criteria, etc. The fact that the bachelor thesis is scheduled prior to the minor seems the wrong way around. Although the committee understood from the interviews that this is partly beyond the influence of the programme management, it emphasizes that students should be able to use the minor to prepare for the writing of the thesis.

Both programmes obtained a good level of multidisciplinary without lowering their quality or depth. Multidisciplinary is primarily reflected as integration within the broad field of Landscape Architecture and Planning, as students learn to communicate and work with colleagues from the other specializations.

The programmes are based on two learning principles, reflective and experiential learning. The committee considers these two aspects to be well chosen and implemented in the bachelor programme. The same learning principles are also used in the master programme. The impact is less pronounced compared to the bachelor programme, since a large part of the master programme is dedicated to the thesis and internship. The committee considers the studios to be very useful teaching forms for integrating various subjects and incorporating the learning principles. Based on what the committee observed during the site visit, this functions very well. The concept of adding supportive courses to the studios is considered a good way to provide students with fundamental knowledge. However, it is not clear to the committee if and how these leading concepts are integrated into the supportive courses. This leads to a question regarding the coherency of the programme: How are the supportive courses connected to the studios? It seems that integration of knowledge is possible, depending on the subject of the studio it most often works.

Based on the previous assessment as well as on the regular course and curriculum assessments, the programmes aim at continuous improvement. Via the study association as well as via the education committee, students are able to provide feedback and suggest changes in the curriculum. Based on the interview the committee is convinced that the programme management gives students an important role in internal quality assurance. The increased attention they requested for the scientific aspects of the programme and academic writing skills is evident.

The committee would like to examine more closely several recommendations by the previous assessment committee. The first is the absence of an internship in the bachelor programme. As was mentioned in the critical reflection as well as in the interview, the professional field demands more experienced students, so it was not possible to insert an internship in the bachelor programme. Due to expected changes in the financing of master programmes, it is likely that in the future more students will enter the professional field after graduating from a bachelor programme. Although the committee understands that the position of the professional field is restrictive, it strongly advises the programme management to continue looking for possibilities to prepare bachelor graduates for finding a job instead of enrolling in a master programme. The second recommendation regarded the improvement of balance

between the academic and artistic component of both programmes. The committee concluded that the programmes put a lot of effort into this. Although there will always be tension between pure design and research, the committee is of the opinion that the programme improved greatly in finding a balance. The third recommendation the committee would like to comment upon is the improvement of oral and written presentation skills. In addition to other improvements, the bachelor programme recently introduced a portfolio on oral presentations. The committee is enthusiastic about this step. Not only does it provide the staff with knowledge about the students, it also provides the individual student with tangible proof that they were trained in presentation skills. The committee strongly suggests expanding the portfolio into a personal development plan including skills like writing, communication, etc.

Many of the staff members involved in the programmes are very well known internationally for their research. This underlines the committee's conclusion that the attention on academic and research skills should be increased. Despite the fact that a relatively large proportion of the lecturers for the bachelor programme has no PhD, the committee is convinced that their research quality is good. The committee suspects that the increased attention paid to research and academic components will in time result in more lecturers with a PhD. Wageningen University focuses on the educational quality of its lecturers. The committee appreciates the attention the university pays to education. The small size of the university and the programmes in combination with the favourable student-staff ratio lead to easy accessibility of the staff members. Students appreciate and value the contacts with lecturers and are very satisfied with their educational qualities. If a lecturer fails to meet the set standards, the programme and university take swift and adequate action to change the situation. If the lecturer does not improve, more stringent measures are taken.

The programme-specific services seem to be more than adequate. Despite the fact that students would appreciate more drawing tables, the committee thinks that Wageningen University in general and the programmes more specifically provide sufficient equipment, working space and computer facilities.

The first and second year of the bachelor programme and the first year of the master programme have a fairly high number of contact hours. The committee acknowledges that the studios require intensive contact between students and supervisors, but almost 50% of the total study load seems rather scholastic. The committee wonders if these highly structured first years prepare students adequately for the independent work on their thesis that is expected from them later. The perceived study load is mostly adequate for the supportive courses, but is extremely high for the studios. Students mentioned in the interview that a studio could be successfully completed with less input, but they are considered the most important part of the curriculum. Therefore, failing a studio is worse than failing a supportive course. This makes it difficult for the programme management to spread the study load evenly in the programme. In combination with the committee's remark on integration of the supportive courses with studios, the committee suggests looking for possibilities to balance the study load. The committee concludes that although the study load is rather high for certain courses (studios), the bachelor programme is feasible in three years and the master programme in two years.

### **2.3. Conclusion**

*Bachelor programme in Landschapsarchitectuur en ruimtelijke planning:* the committee assesses Standard 2 as **good**.

*Master programme in Landscape Architecture and Planning*: the committee assesses Standard 2 as **good**.



### **Standard 3: Assessment and achieved learning outcomes**

The programme has an adequate assessment system in place and demonstrates that the intended learning outcomes are achieved.

**Explanation:**

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes. The tests and assessments are valid, reliable and transparent to the students.

### **3.1. Findings**

#### **Assessment system**

For each course the lecturers have to formulate five to eight intended learning outcomes, which are published in the Study Handbook and course guides. The course guide is obligatory for each course and explains what a course is about, how it is organized, and how students are expected to participate. Part of the course guide covers the assessment strategy, for which requirements have recently been introduced. The assessment strategy clarifies how and when a learning outcome is assessed, who is involved in assessing students, and how the final mark will be determined. It also shows the transparency and validity of the assessment. To enhance the reliability of the assessment, examiners need to explain which elements in the student's answers lead to a certain mark. For multiple choice questions this is embodied in the answer key, and for open answer questions this is shown by model answers, assessment criteria or rubrics (for an example, see Appendix 9). The previous practice was similar to the new theory, but had a less formalized manner. Currently, all Wageningen programmes are in the transition phase from the previous practice to the new situation.

The learning outcomes of the Landscape Architecture and Planning programmes are judged by formal assessment strategies of individual course learning outcomes and thesis results. The course coordinators, under the supervision of the Examining Board, develop assessment strategies for each course and define criteria for each assessment. The programme director has an overall view of the courses and assessments. The programme committee is currently in the process of collating all course assessment strategies to evaluate the total of courses and assessments to produce an optimally balanced programme.

With the changes in the Higher Education and Research Act, the position of the Examining Boards has changed. They are currently in the process of strengthening their role in assuring the quality assessment, both via interim course exams and the evaluation of internships and theses. The new role of the Examining Boards has two elements. The first is that each examiner will be made explicitly responsible for ensuring that an assessment of a course is valid, reliable and transparent. This was made a regular part of the University Teaching Qualification. Wageningen University produced documents to help examiners and lecturers achieve this, and meetings between the Examining Boards and examiners were held in the spring of 2011. The second element is that the Examining Boards will visit chair groups on a regular basis to verify the quality of assessment of courses provided by the groups. Additional visits will take place when required, for example when indicated by the results of course evaluations.

The committee learned during the site visit that students can do many resits for each course if they don't pass the first time. Each year three exam possibilities are offered for each course and students can retake the exam as often as needed to pass.

### *Bachelor programme*

The critical reflection provides an example of an assessment strategy in the bachelor programme for *Studio Site Design*. This shows that the assessments cover all intended learning outcomes of the course. The course coordinator arranges the alignment of learning outcomes, educational activities and assessments. For each assessment a rubric is provided to ensure the reliability of the assessment. The course guide includes the assessment strategy and rubrics at the start of the course.

Academic skills like research skills, information literacy, writing skills, English language skills and presentation skills are taught in several courses. The critical reflection provides an overview of the most important general academic skills and the courses in which they are assessed. For presentation skills a special assessment arrangement was developed: each student is obliged to give three individual presentations, including the final presentation of the thesis. Feedback on the first two presentations is provided by the course supervisor and two fellow students. The final presentation is graded by the thesis supervisor and examiner and is part of the final thesis grade. The feedback is registered in a personal presentation portfolio, which also contains a personal reflection report. This portfolio is assessed as part of the thesis.

### *Master programme*

The critical reflection also provides an example of an assessment strategy in the master programme for *Atelier Landscape Architecture and Planning*. The validity of the assessment strategy is ensured by a combination of four components:

- an oral presentation, poster and report in which a multidisciplinary group of students presents a sound academic project proposal;
- an oral presentation, poster and report in which the group presents and evaluates alternative intermediate planning and design proposals on the basis of state of the art scientific knowledge;
- an oral presentation, poster (in case of a design) and report in which individual students present an elaboration of the planning or design proposal or an analysis that substantiates or reflects on a planning or design proposal;
- assessment of the personal functioning of a student in a multidisciplinary team and the functioning of the team in relation to the client through written self-assessments by the students, process observations and peer assessments.

The reliability of the assessment strategy is ensured by providing clear criteria for each assessment. A rubric is currently being developed. Transparency is guaranteed by offering students a course guide with the assessment strategy, criteria and rubrics at the start of each course.

The assessment of the internship is based on a report detailing the results of the internship and a report reflecting on the student's personal development. Learning outcomes for the internship are agreed with and partially determined by the student prior to the internship, and the performance is assessed by a local supervisor.

### **Quality and assessment of the thesis work**

The thesis work is always graded by two assessors: the supervisor and the examiner. Both are present during the presentation and final discussion of the thesis. In the study year 2011-2012 the assessment procedure for the thesis will be further improved by developing a rubric. A rubric is an assessment tool based on a set of criteria and standards linked to learning

outcomes that is used to assess or communicate about product, process and performance. The rubric provides guidelines for the thesis evaluation. In Appendix 9 an example of a rubric is provided.

#### *Bachelor programme*

In 2010-2011 the inclusion of a thesis as the final part of the bachelor programme was initiated. The thesis has a total of 12 credits and is considered the final stage of the bachelor programme. Students from the Landscape Architecture major produce a research-based design under supervision: defining a research/project problem, writing a research/project proposal, performing a literature review from which design principles are derived, developing design solutions, reflecting critically on the entire research/design process, and presenting the results in graphics and text. Students from the Spatial Planning major do a research project under supervision, deliver a contribution to a strategic plan or give planning advice: they define a research project/problem, write a research/project proposal, perform a literature review, work on a small research project (based on the literature and/or interviews) or develop alternative plans or formulate a substantiated planning advice, reflect critically on the entire research/planning process, and present the results in a written report. During the interview some students stated that prior to the writing of their thesis, it was not entirely clear what was expected from them. Other students were familiar with the expectations and stated that the type of the information provided depended on the chair group.

For the assessment of a thesis, a standard form is used throughout Wageningen University. Criteria for the assessment are: research competencies (10-40%), design qualification (10-40%), report (40%), presentation (5%) and final discussion (5%). The weight of each criterion is determined after approval of the research/project proposal. The thesis work is always graded by two assessors: the supervisor and the examiner. Both are present during the presentation and final discussion of the thesis. In the study year 2011-2012 the assessment procedure for the thesis will be further improved by developing a rubric.

Prior to the site visit, the committee members received a total of 14 recent theses, selected from a list in the critical reflection of all theses that were completed during the last two years. The selection was done by the secretary on behalf of the chairman of the committee. When selecting the theses, the grading and the graduation date were considered. Student numbers of the selected theses are provided in Appendix 7. For all theses the committee read the thesis report; several of these theses were accompanied by a reflection report and/or posters with a presentation of the design. The use of the assessment form filled out by the supervisor has only recently been introduced, therefore not all theses had one.

#### *Master programme*

For master programmes, the thesis, internship and Academic Master Cluster (AMC) form important parts of the learning outcomes. The master's programme in Landscape Architecture and Planning has an alternative to the AMC, the Atelier Landscape Architecture and Planning. There is an extensive assessment format for the AMC to evaluate each student's individual contribution to the final product and collaborative process. It aims at securing grading reliability across the large number of teams participating each year. For the internship an assessment form is used which is common to all programmes. An external and an internal supervisor are appointed for the internship: the external supervisor advises on the quality of the student's performance, the internal supervisor grades the internship.

The weighting of the criteria for the assessment of the master's thesis differs slightly from that for the bachelor's thesis: research competencies (20-50%), thesis report (20-50%), design

competences (20-50%), colloquium (5%) and examination (5%). The critical reflection includes the rubric with the design competence assessment criterion. The thesis is always assessed by at least two assessors: the supervisor and the examiner. Each thesis process involves at least five aspects: a thesis proposal, a final draft report, the thesis report, a colloquium and an examination.

Prior to the site visit, the committee members received a total of 13 recent theses, selected from a list in the critical reflection of all theses that were completed during the last two years. This selection was done by the secretary on behalf of the chairman of the committee. When selecting the theses, grading (the same number of high, middle and low scores were selected) and graduation date were considered. Student numbers of the selected theses are provided in Appendix 7. The use of the assessment form filled out by the supervisor has only recently been introduced, therefore not all theses had one.

## **Success rates and performance of graduates**

### *Bachelor programme*

Dropout rates for the bachelor programme are relatively low, but the study delay is high in comparison with other Dutch bachelor programmes. Data on success rates for both the bachelor and the master programmes are provided in Appendix 5. In 2010 the programme investigated reasons for avoidable dropout and study delay. Regarding the former, primarily students with a pre-university profile in Nature & Engineering and Culture & Society dropped out. These students had in common that they took mathematics A instead of B. Mathematics levels also seem to be involved in the latter case. Many of the students with study delay generally have difficulties with the natural science courses and mathematics in year 1. These students also had low grades for mathematics in their pre-university education.

Almost all graduates continued their educational career by joining a master programme, 83% with the master in Landscape Architecture and Planning. According to the critical reflection, employers in the field are in general not interested in bachelor's graduates. Graduates who want to work as a registered landscape architect in conformance with the Dutch Architects Title Act (WAT) are required to have a master degree in Landscape Architecture in combination with two years of postgraduate professional training.

A letter from the programme management after the site visit provided an explanation of the history of the thesis project. The bachelor thesis was introduced in 2007/2008 to shift from a mere guided application of methods in group work to an individual, independent, research oriented project. During supervision of the first generation of bachelor theses it became apparent that some of the new competences were not sufficiently addressed in the curriculum. In 2010/2011 modules on problem delineation, scientific writing and literature retrieval and referencing have been included in the curriculum in three different courses. This makes the programme better balanced.

### *Master programme*

More than 80% of the graduates found a job in the domain of landscape architecture and spatial planning according to the National University Education Monitor 2007. Only 6% was unemployed after one year. However, the situation on the labour market has deteriorated since 2010.

An alumni survey from September 2011 reveals that most graduates are employed by a design bureau (25%), a governmental organization (22%), a consultancy agency (18%), a research

institute (16%) or an education institute (13%). Of the alumni 12% holds a PhD, while 23% are in the process of getting a PhD degree, reflecting the transformation into a more academic and research-based programme.

During the interviews the committee discussed the study success of all students, specifically of the international students. Approximately 30% of the master students are foreigners. It was mentioned that although a thorough selection procedure is done, some students have inadequate qualifications when they arrive in the Netherlands. Also, these students often have to get used to the Dutch situation and culture. Staff members stated that it sometimes takes more time and investment to supervise these students in the thesis project.

### **3.2. Considerations**

The committee is very positive with regard to the initiatives Wageningen University is currently implementing in the bachelor and master programmes. The Examining Boards are in the process of strengthening their role in ensuring the quality of assessment and seem committed to formalizing the assessment system. The committee agrees that having only four Examining Boards is stimulating the consistency and equality of the procedures. However, these four Examining Boards are responsible for a total of 49 programmes. The committee is worried that the limited number of Examining Boards leads to a certain distance from the programmes, making it difficult for the Examining Boards to really be in control at the programme level.

The programmes in Landscape Architecture and Planning are on schedule to implement the new initiatives. The use of course guides makes the assessment procedures very clear and transparent, and they are very useful to the students. The committee especially values the use of the rubric for the master thesis, which was adapted to include the assessment of design competences. Despite the many positive developments, the committee warns not to make the assessments too rigid at the same time. Formalizing too much might not do justice to the individualized programmes or to the differences in cultural backgrounds and prior education of the students, both of which are assets of Wageningen University. The programmes – and the university – will have to find the right balance.

The programme director appears to be sufficiently in control of the assessments. Currently, the assessment strategies of the different courses are collected and combined to an assessment strategy at the programme level. Once it is finished and any overlap and/or lacunas are worked out, the committee is convinced that the programmes will have a good assessment system. Since it is a work in progress, the present situation is satisfactory.

The committee is of the opinion that with the current pressure on graduating in time in the Netherlands, the number of possible resits at Wageningen University is outdated. If students don't feel the need to pass an exam, they might not take the exam seriously. Chances are that this will lead to study delays. The success rates of students in the bachelor in Landscape Architecture and Planning is below the Wageningen average. The success rates of students in the master programme in Landscape Architecture and Planning is at the Wageningen average. Since students are still allowed to enter a master programme before graduating from the bachelor programme, the committee is not able to give a valid opinion on the success rates.

#### *Quality and assessment of the thesis work of the bachelor programme*

After reading the bachelor theses, the committee found itself in a difficult situation. Overall, the grading by the supervisors was considered rather optimistic. The committee feels that most theses lack a critical appraisal of the literature, have little or a lack of citing of sources,

and do not fulfil the definition of a research thesis. In addition, many of the theses were written in poor Dutch. Four were considered unsatisfactory for a thesis of 12 credits. However, the committee realised that the thesis is only part of the total thesis project and in itself is not worth all of the 12 credits. This became even clearer during the interviews with students and staff. Therefore, the programme was requested to provide all associated components for the selected 15 thesis projects, to assess the total of the products.

The theses that were inadequate in the opinion of the committee were all among the first products of the curriculum that included a bachelor thesis (2007/2008). Based upon these theses and others, the programme decided to include the changes in the curriculum as mentioned in the 'findings' of this chapter to allow a complete evaluation.

After reading and assessing the reflection reports, posters and assessments by the supervisors, and learning the changes made in the curriculum to prepare students for writing a thesis, the committee is of the opinion that in the present curriculum the combination of products fulfils the requirements that can be expected from bachelor graduates in Landscape Architecture and Planning. Nevertheless, the committee feels that the citing of sources and the quality of use of language should consequently be specifically checked by the supervisor.

Since the bachelor thesis is relatively new, the committee assumes that the programme has not yet clearly determined its objective and position in the curriculum. The committee advises rethinking the role, function and position of the bachelor thesis and making clear to the students what is expected of them.

The committee noticed that several of the selected theses were joint projects by two students. The thesis reports of these projects were also jointly written, and the contribution of the individual students could not be distinguished. The committee understands that joint projects might have advantages but strongly insists that the individual contributions should be visible and assessable.

#### *Quality and assessment of the thesis work of the master programme*

In contrast to the bachelor theses, the committee overall agrees with the assessments of the master theses. It appears that the use of the rubric is having a positive effect on the verification of the grades. Furthermore, the committee considers the master theses to be of high quality in general. Especially those from the landscape architecture specialization are of very high quality; one could be submitted for publication. The theses from the other specializations were satisfactory to good. The committee noticed in its assessment that the scale of the rubric was more difficult to apply to the theses of two foreign students. Although one of these theses was chaotic from a Dutch (or European) point of view, it was considered to be very creative. The score of 7.5 was therefore justified, but not according to the rubric scale.

One thesis was written by two students, and it was not clear to the committee which student was responsible for which part of the thesis. For a bachelor thesis the committee might allow joint thesis projects, but for a master thesis this is unacceptable. The committee learnt that it is Wageningen University policy not to allow joint theses in the master programmes and advises the programme to make sure students write their own thesis.

Overall, the committee was impressed by the level of the master theses. Although differences existed between the specializations, no thesis was considered unsatisfactory. Some theses were even considered to be excellent.

### 3.3. Conclusion

*Bachelor programme in Landschapsarchitectuur en ruimtelijke planning*: the committee assesses Standard 3 as **satisfactory**.

*Master programme in Landscape Architecture and Planning*: the committee assesses Standard 3 as **good**.

### General conclusion

The committee assesses the *bachelor programme in Landschapsarchitectuur en ruimtelijke planning* as **satisfactory**.

The committee assesses the *master programme in Landscape Architecture and Planning* as **good**.





## APPENDICES



## **Appendix 1: Curricula vitae of the members of the assessment committee**

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**Professor Frans Zwarts** was Rector Magnificus of the University of Groningen between 2002 and 2011. He studied linguistics at the University of Amsterdam (1967-1973) and at the Massachusetts Institute of Technology (1974), and wrote a doctoral dissertation on Categorical Grammar and Algebraic Semantics (cum laude). He was appointed lecturer at the University of Groningen in 1975 and became Professor of Linguistics in 1987. He was the initiator of the European Summer School in Logic, Language and Information (ESSLLI) in 1989. In 1992, Zwarts was a visiting scholar at UCLA (University of California, Los Angeles). Between 1995 and 2002, he was chair of the Netherlands Steering Committee for Research on Developmental Dyslexia, initiated by the NWO as part of a multidisciplinary national research programme. In 1999, he became academic director of the Graduate School of Behavioural and Cognitive Neurosciences of the University of Groningen. In 2003, he and the Rector Magnificus of Uppsala University established a close partnership between Groningen and Uppsala. This was extended in 2006, when the Universities of Ghent, Göttingen, Groningen, and Uppsala decided to form the U4. In 2011 he was appointed professor and manager to realise the University Campus Fryslân. Zwarts was a member on several NQA assessment committees. He has been a Fellow of the Royal Netherlands Academy of Arts and Sciences (KNAW) since 1999.

**Mrs. Renate Prenen, MSc** is educational advisor and independent entrepreneur educational advice. She studied Applied Educational Sciences at Twente University. She worked at Randstad employment agency as advisor and programme manager. Later, she worked at the Academic Medical Centre (AMC) of the University of Amsterdam, where she was educational advisor for the Board of the AMC. In September 2009 she started as an independent educational advisor. She has been a committee member on other QANU assessment committees.

**Professor Diedrich Bruns** has been professor for Landscape Planning at Kassel University since 1996. He obtained his MA degree in Landscape Planning in 1978 at Hannover University and did his PhD at Stuttgart University. He has worked at many universities, like the University of Toronto, University of Stuttgart, and the University of California. He completed over 400 planning and design projects in urban and other cultural landscapes, wetlands, mainly for urban development, transportation, mining and flood risk management. He is involved in landscape and environmental planning and management, strategic environmental assessment and landscape and habitat restoration schemes. His research, teaching and practice focus on 1) cultural landscapes, including urban regions, in relation to local identity, values and human well-being, 2) regional landscape dynamics, in relation to land use, visual values, ecosystem and human health, and 3) landscape planning and management methods, integrated and participatory approaches.

**Professor Gert de Roo** is full professor in Physical Planning, Head of the Department of Spatial Planning and Environment at the Faculty of Spatial Sciences, University of Groningen, and President-elect of AESOP. He is responsible for various fields of research, all of which are related to decision-making concerning interventions within the physical environment. Most of his research and publications focus on decentralization processes, in particular those concerning physical and environmental planning. Another part of his research focuses on the development of decision-making models that support choices concerning interventions within the physical environment. He participates in various national and international associations and organizations, all of them having in common the physical environment, quality of life, sustainability and urban development. He was elected President

of the Association for European Schools of Planning (AESOP) from 2011 until 2015. He is editor of the Ashgate Publishing Series on Urban Planning and the Environment, the Ashgate Publishing Series on Planning Theory (founded in 2010), and is on the editorial board of the Sdu series on spatial planning. He also participated on the editorial board of Planning Theory & Practice.

**Dennis Jansen, BSc** is a master student in Planning at Utrecht University and expects to graduate in 2012. He did his bachelor in Human Geography and Planning at Utrecht University, specializing in Economic Geography and Planning. In addition to his studies, Jansen works as a planner for a taxi company. He is member of the student association FRESH.

## Appendix 2: Domain-specific framework of reference

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### 1 Introduction

As a subject benchmark for a programme in Landscape Architecture and Planning four national and international sources can be taken into consideration:

- The document *Tuning Landscape Architecture Education in Europe (2010)*, which is the work of academics in the field of landscape architecture as organized in LE:NOTRE Steering Committee of the European Council of Landscape Architecture Schools (ECLAS). This document is the most recent document on terms and reference for teaching and learning at institutes of higher education in the field of landscape architecture in Europe. The ECLAS education guidance is still in the process to receive official recognition by responsible EU bodies.
- The *Guidance Document for Recognition or Accreditation (2009)* of professional education programmes in Landscape Architecture of the International Federation of Landscape Architects (IFLA).
- The *Core Requirements for a high quality European Planning Education (1995)* as agreed by the Association of European Schools of Planning (AESOP) in close cooperation with European Council of Town Planning (ECTP). AESOP is the only representational body which brings together the planning schools in Europe.
- The *Entry Requirements for the Architects Register* as laid down in the *Nadere Regeling*, belonging to the Dutch Architects Title Act (WAT). In the Netherlands landscape architecture is a registered profession. The *landscape architecture* title is legally protected by the Architects Title Act and monitored by the Foundation Bureau Architects Register (SBA). Planning is not a regulated profession in the Netherlands and in Europe.

### 2 The core of landscape architecture and spatial planning

Landscape architecture as a field of professional activity, and an academic discipline, is concerned with the shaping of landscapes at various scales. Core competencies of landscape architecture graduates centre on the process of intervention in landscapes to create new or revitalized places, by means of landscape planning, design and management, as well as by project implementation. Aims are to create, enhance, maintain, and protect places so as to be functional, aesthetically pleasing, meaningful and sustainable and appropriate to diverse human needs and goals. The multifaceted nature of landscapes and mankind's interaction with them makes this subject area one of great scope. Hence, in developing its field, landscape architecture draws on and integrates concepts and approaches, not only from both sides of the traditional divide between the creative arts and the natural sciences, but also incorporates many aspects of the humanities and a wide range of technologies (ECLAS, 2010).

Core competences of landscape architecture graduates centre on the process of intervention in landscapes to create new or revitalized places, by means of landscape planning, design and management, as well as by project implementation. Two interdependent core competences are:

- Knowledge, skills and understanding of planning, design and management, to create new or conserve existing landscape situations, closely integrated with an
- Holistic knowledge and understanding of the nature of landscapes and the ways in which it is perceived in time and space, and the pressures and driving forces to which landscapes are subjected.

The interdependent nature of these two core competences means that the teaching and learning of both of them should be tightly integrated with one another (ECLAS, 2010). Spatial planning education involves the scientific study of and training in creative conceptual and practical thinking on the relation between society and environment at various territorial levels and in the search, development and advancement of opportunities for purposeful intervention in that relation to ensure sustainable development (AESOP, 1995).

Planning in Europe has developed in a great variety of institutional settings and involves many disciplinary backgrounds. Spatial planning is the work of researchers, of practitioners, of proposers of policies and programmes for action, of designers of projects and of implementers. But whatever these varieties and whatever the differences in purpose, style, content and methods of planning in real life circumstances, planning as a generic activity is concerned with the advancement of optimal physical conditions for the needs of society giving due account to both the long-term socio-economic developments and environmental conditions. Spatial planning's ultimate goal is to ensure sustainable development of society and environment (AESOP, 1995).

### **3 Core curriculum requirements**

A comparison of the documents mentioned in the Introduction leads to 13 requirements for the curriculum. The first 7 requirements apply to both landscape architecture and spatial planning. Three requirements are specific for landscape architecture programmes and three requirements are specific for spatial planning programmes.

#### *Requirements that apply to both landscape architecture and spatial planning*

1. Graduates should have disciplinary knowledge from a variety of disciplines from the social and natural sciences and the humanities that explain developments in the natural and man-made environment and men's exploitation. Theory from the natural sciences can help to explain the bio-physical aspects of landscape, social sciences focus on its use, while the humanities focus on, among other things, its historical development and interpretation, as well as its associated cultural meanings and values both to individuals and groups.
2. Graduates should have the skills to describe, analyse and assess landscapes and value the built and natural environment.
3. Graduates should have the ability to define goals for landscape quality objectives. They should be able to anticipate future needs of society, including the appreciation of new trends and emerging issues in landscape architecture and planning.
4. Graduates should have the skills to devise designs and plans. They should have the creativity to find good solutions for landscape development and to guide implementation policies. They should be able to generate scenarios and alternative solutions and have the skills for the graphic representation of these proposals.
5. Graduates should understand planning and design processes in all their components.
6. Graduates should have knowledge of methods for collaborative problem solving in interdisciplinary and multi-disciplinary settings and should have skills to manage public facilitation and stakeholder communication.
7. Graduates should have knowledge of particular fields of landscape architecture or spatial planning and the relationships across and between these fields, e.g. town planning, urban open space planning, conservation/management of cultural landscapes, conservation/management of parks and gardens and planning/design for infrastructure projects.

*Requirements that apply specifically to landscape architecture*

8. Graduates should have knowledge of theory and methodology of landscape architecture and the relationships with the expressive arts and other architectonic principles.
9. Graduates should have knowledge and skills to use and handle planning and design of plant material, horticultural applications and construction materials.
10. Graduates should be familiar with the ethical implications of landscape architecture, the professional practice of landscape architects and their role in society.

*Requirements that apply specifically to spatial planning*

11. Graduates should have knowledge of the nature, purposes, theory and methodology of spatial planning.
12. Graduates should have knowledge of the instruments and performance of instruments for implementing planning policies.
13. Graduates should be familiar with the value dimension of planning. The ethical implications of spatial planning, the history of spatial planning as an institution and a profession, the cultural differences of spatial planning on a European and an international level and the role of spatial planners in society.

#### **4 Criteria for teaching modalities and teaching staff**

A comparison of the documents mentioned in the Introduction leads to the following criteria for teaching modalities and teaching staff:

- Studio learning should be at the centre of landscape architecture and planning education: 40 to 60% of student's workload is reserved for studio based learning. Students work either individually or in small groups to develop design and planning approaches, to train in communication and to gain management skills, to apply a number of different techniques and technologies, etc. Supervision and guidance includes frequent consultations and presentations.
- Schools are responsible for providing resources needed for studio training; this includes sufficient consultation and tutoring capacity, adequate studio rooms, resources to train IT related skills and competences, workshops for model building, and others.
- Around the studio a set of other teaching modes are arranged to support specific learning processes. These consist of lectures, seminars, and field trips. During field trips (excursions) landscape architecture and planning students develop a set of references for their own work. To acquire professional competences internships should be included into landscape architecture and planning programmes. Experience gained during periods of practical training outside of the university should be reflected upon, for example by writing a term paper, or by preparing a report.
- In order to benefit from the wide variety of teaching methods, exchange programmes for teachers, and students at advanced level, will be desirable. Regional and international student design competitions, awards and exhibitions will be supported by schools and the profession.
- During both the bachelor's and the master's degree, regular exposure to and interaction with landscape architecture and planning practice is required. The exposure of students to real life planning problems can take the shape of study trips, intervention of planning professional in course modules, interviews with professionals, training periods and professional workshops.
- An international dimension is present in the curriculum. This can take various forms (student and teaching staff exchanges; field trips; course modules on landscape architecture and planning in other countries).

- At the master's level, the individual realization of an individual dissertation on a landscape architecture or spatial planning issue is required of all graduates.
- The composition of the teaching staff reflects the interdisciplinary character of landscape architecture and planning education: various disciplinary backgrounds or specializations should be represented (policy science, geography, architecture, law, economics, ...)
- Professionals working in the field of landscape architecture and planning are involved in various teaching modules (especially at the master's level) in order to assure the connexion with landscape architecture and planning practice.
- Members of (teaching) staff are involved in research projects and programmes concerning spatial planning or related issues.
- Members of (teaching) staff direct PhD theses and actively involve PhD students in teaching activities.
- Members of (teaching) staff are active in the dissemination of research findings to a wide audience, including students.



## Appendix 3: Intended learning outcomes

### Domain-specific intended learning outcomes for the bachelor programme in Landscape Architecture and Spatial Planning

	After successful completion of the programme, the graduate:	After successful completion of the programme, the graduate:
Planning and design	1. is able to distinguish different design and planning practices, theories, concepts and approaches	1.1 is able to distinguish the most important approaches and theories in landscape architecture and spatial planning
		1.2 is able to define the relationships between landscape architecture and planning and allied fields such as geography, urban design, architecture and art
		1.3 can compare practices of landscape architects and spatial planners in the Netherlands and abroad
	2. has the creativity and power of imagination necessary to represent a future landscape and spatial organization and can distinguish different planning or design methods	2.1 is able to interpret and adjust a project assignment or a design brief
		2.2 is able to apply knowledge of the natural and social sciences for planning and design
		2.3 is able to distinguish and select planning or design methods.
		2.4 is able to identify the legal, political and institutional context of a planning or design project
		2.5 is able to explore relevant reference situations for a planning or design project
		2.6 is able to clarify the role of different sketches, maps or documents in planning and design projects
		2.7 is familiar with different types of planning and design processes, both operational and strategic, urban and rural and on various spatial and temporal scales
		2.8 is able to organize a decision-making process towards the generation of a plan or design, to facilitate this process with adequate knowledge and to communicate with stakeholders in society
	3. is able to present models, alternatives and potential scenarios of past, present and future landscape interventions on interrelating scales and/or research results both visually, orally and in writing	2.9 is able to appraise the consequences of design and planning choices
3.1 has the creativity and power of imagination to represent planning and design processes and situations in graphics and text		
3.2 is able to apply free hand drawing skills		
3.3 is able to apply GIS and computer graphics software such as AutoCAD, Photoshop, Sketchup and ArcView		
3.4 is able to write scientifically and to organize literature references		
Nature of the landscape Notes: 1 Descriptive analysis: inventory, selection and abstraction of existing data 2 Critical analysis: reflection on possibilities for intervention 3 Normative analysis: design and planning solutions by legitimized directives	3.5 is able to prepare and give an oral presentation on a planning or design project	
	4.1 is able to explain the functioning of social, cultural, legal, political and economic processes that determine landscape transformations	
	4.2 is able to explain the functioning of geological, pedological, hydrological, ecological and botanical processes that determine landscape transformations	
	4.3 is able to interpret the genesis, spatial distribution and properties of different landscapes that are the result of the accumulated effect of social, cultural, legal, political, economic, geological, pedological, hydrological, ecological and botanical processes	
	4.4 is able to assess technological possibilities and restrictions for deliberate human interventions in landscapes	
<b>General academic learning outcomes</b>		
Science and research	5. is able to execute landscape research under supervision: the student is able to formulate a research proposal, to extract research questions from design and planning practice, and to conduct a literature review	5.1 is able to write a research proposal including research questions, the societal and scientific relevance, a literature review and methodology
		5.2 is able to collect and process literature and secondary data and draw relevant conclusions
		5.3 is able to use statistical and mathematical knowledge for landscape analysis
		5.4 is able to apply research instruments such as GIS and SPSS in landscape analysis

---

Academic skills and attitudes

- 6. has scientific curiosity and is pro-active
  - 7. is critical, self-reflective and able to express an opinion
  - 8. is able to work according to planning and is reliable, honest and incorruptible both in individual and group work
  - 9. is able to design and plan his/her own learning path (under supervision) based on continuous evaluation upon personal knowledge, skills and performance
-

## Domain-specific intended learning outcomes for the master programme in Landscape Architecture and Planning

Learning outcomes	Core categories	After successful completion of the programme, the graduate:	
Domain-specific learning outcomes	Planning and design	1	is able to compare design and planning theories, concepts and approaches, can distinguish different traditions in design and planning, and is able to place his/her own discipline in a multidisciplinary framework
		2	is able to develop scientifically legitimized designs and plans on interrelating spatial scales and with different temporal horizons and is able to evaluate the consequences of alternative choices
		2a	for landscape architecture: is creative and effective in reorganising data and field research to synthesize a specific design problem and propose potential and alternative consequences of landscape interventions with a compelling degree of detail.
		2b	for spatial planning: can link current and future initiatives, projects and strategies that influence the spatial organization (its use, management, design and lay-out) from different stakeholder activities and perspectives.
		2c	for socio-spatial analysis: is able to evaluate the significance of different types of socio-political discourses on space, recognize and diagnose spatial and urban-rural conflicts, propose solutions for these conflicts and improve socio-spatial quality
		3	is able to present scientific views, designs, plans and research to members of the scientific and non-scientific communities visually, orally and in writing and is able to express him/herself in English
Domain-specific learning outcomes	Nature of the landscape	4	is able to carry out a critical and normative landscape analysis on interrelated scales (regional – local – site) or a socio-spatial analysis by interpreting multidimensional data with the use of consistent theoretical concepts in order to define a clear (potential) problem and judge the opportunities and limitations for design and planning.
General academic learning outcomes	Science and research	5	is able to independently formulate and execute scientifically based landscape research, planning research, socio-spatial research, design research or research-by-design
	Academic skills and attitude	6	has an independent and critical attitude, is able to reason logically and distinguishes matters of primary and secondary importance
		7	is able to reflect on personal action and thinking, is able to reframe, extend and apply knowledge, has skills to learn contextually, has an open attitude to discussion and is conscious of ethical matters
		8	is able to plan his/her work processes independently and is honest, incorruptible, efficient, goal-directed, loyal and flexible
General academic learning outcomes	Academic skills and attitude	9	is able to design and plan his/her own learning processes based on continuous reflection upon personal knowledge, skills, attitudes and performance



## Appendix 4: Overview of the curricula

### Curriculum of the bachelor programme in Landscape Architecture and Spatial Planning

Year 1	EC	EC
<b>First Semester</b>		<b>Second semester</b>
Introduction to Landscape Architecture and Planning: Experiences	3	Introduction to Geo-Information Sciences and Graphics
Ecology 1	3	Landscape Geography
Introduction to Environmental Sciences	6	Integrated Studio: The Metropolitan Landscape
Mathematics 1 (RO)	3	Studio: Planning Basics
Statistics 1 (RO)	3	Studio: Design Basics
Introduction to Landscape Architecture and Planning: Theory	3	
Human Geography	6	
Soil and Water 1	6	
<b>Year 2</b>		
<b>Third semester</b>		<b>Fourth semester</b>
Landscape Architecture and Aesthetics	6	Landscape Economics and Politics
Spatial Planning Theory and Methodology	6	Cultural and Historical Geography (RO)
Mathematics 2	3	Environmental Psychology (RO)
Statistics 2	3	
Landscape Engineering	6	
<b>Landscape Architecture Major</b>		
Free-Hand and Digital Visualization 1	3	Free-Hand and Digital Visualization 2
Planting and Construction	3	Studio: Urban Design
Studio: Site Design	6	
<b>Spatial Planning Major</b>		
Methods for Operational Planning	6	Studio: Operational Planning
		Methods for Strategic Planning
		Studio: Strategic Planning
<b>Year 3</b>		
<b>Fifth semester</b>		<b>Sixth semester</b>
Research Methodology for Human Environment	6	Minor or elective courses
<b>Landscape Architecture Major</b>		
Garden and Landscape Architecture: a Design and Cultural History	6	
Studio Regional Design	6	
Thesis Landscape Architecture	12	
<b>Spatial Planning Major</b>		
Public Administration and Environmental Law	6	
Transport, Traffic and Infrastructure	6	
Thesis Spatial Planning	12	

## Curriculum of the master programme in Landscape Architecture and Planning

Common Part	EC		EC
<b>Year 1</b>		<b>Year 2</b>	
Philosophy of Science for Landscape Architects and Planning	3	-	
Modular Skills Training	3		
Atelier Landscape Architecture and Planning	18		
<b>Elective</b>			
Elective or refresher courses	18		
<b>Landscape Architecture Specialization</b>			
<b>Year 1</b>		<b>Year 2</b>	
Reflections on Landscape Architecture Practices	6	Thesis Landscape Architecture	36
Design Theory	6	Internship Landscape Architecture	
Advanced Design Research Methods	6	or Thesis Landscape Architecture	24
<b>Socio-spatial analysis Specialization</b>			
<b>Year 1</b>		<b>Year 2</b>	
Space, Place and Society	6	Thesis Socio-spatial Analysis	36
Cultural Geography	4	Internship Socio-spatial Analysis	
Advanced Socio-spatial Research Methodology	6	or Thesis Socio-spatial Analysis	24
<b>Spatial Planning Specialization</b>			
<b>Year 1</b>		<b>Year 2</b>	
Reflections on Spatial Planning Practices	6	Thesis Land Use Planning	36
Planning Theory	6	Internship Land Use Planning	
Advanced Planning and Research Methods	6	or Thesis Land Use Planning	24

## Appendix 5: Quantitative data regarding the programmes

### Data on intake, transfers and graduation

Success rates for the bachelor programme in Landschapsarchitectuur en Ruimtelijke Planning

Cohort	2003	2004	2005	2006	2007	2008	2009	2010
Size at the outset	29	27	42	40	51	46	50	58
Size of re-enrolment T+1	23	23	30	35	47	37	44	
Diploma after 3 years (%)	22	0	3	9	15			
Diploma after 4 years (%)	35	26	33	31				
Diploma after 5 years (%)	52	48	50					
Diploma after 6 years (%)	78	78						
Diploma after 7 years (%)	83							
Diploma after 8 years (%)								
Drop-outs 1 October 2010 (%)	9	13	17	20	6	8		

Success rates for the master programme in Landscape Architecture and Planning

Cohort	2003	2004	2005	2006	2007	2008	2009	2010
Size at the outset	56	47	43	41	33	36	52	61
Diploma after 2 years (%)	48	49	56	56	48	50		
Diploma after 3 years (%)	73	66	77	85	85			
Diploma after 4 years (%)	80	89	88	93				
Diploma after 5 years (%)	82	94	93					
Diploma after 6 years (%)	82	94						
Diploma after 7 years (%)	86							
Drop-outs 1 October 2010 (%)	13	4	7	0	0	3	2	

### Teacher-student ratio achieved

For Wageningen University the average student/staff ratio lies between 5.5 and 12.5 for bachelor programmes, and between 5.5 and 10 for master programmes.

For the bachelor programme in Landschapsarchitectuur en Ruimtelijke Planning the student/staff ratio is 6.73. For the master programme in Landscape Architecture and Planning the student/staff ratio is 6.9.

### Average amount of face-to-face instruction per stage of the study programme

#### Number of programmed contact hours

Year	Contact Hours	Contact hours (% of 1680)
B1	820	49%
B2	709	42%
B3	606	36%
M1	708	42%
M2	30	2%





## Appendix 6: Programme of the site visit

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### Site visit for Landscape Architecture and Planning

22 March 2012

11:30 – 13:15	<b>Preparatory meeting of committee</b>
13:15 – 14:15	<b>Management</b> Prof. A. (Adri) van den Brink (Chairman of Programme Committee) J.F.B. (Jan) Philipsen (Programme Director) Prof. C. (Claudio) Minca (Chair holder in Cultural Geography)
14:15 – 14:30	break
14:30 – 15:30	<b>Students, BLP and MLP</b> W.F.P. (Willeke) Geurts (1st year BLP) R. (Rosanne) Weijers (2nd year BLP: landscape architecture) L. (Lian) Kasper (1st year MLP: landscape architecture) R. (Ruth) Dobbelsteen (3rd year MLP: landscape architecture) L. (Lisa) Verbon (2nd year MLP: landscape architecture) K. (Kai) Wang (1st year MLP: spatial planning) H.G. (Hubert) Maljaars (1st year MLP: spatial planning) D.R. (Darius) Reznik (2nd year MLP: landscape architecture)
15:30 – 16:30	<b>Lecturers, BLP and MLP</b> P.A. (Paul) Roncken (Assistant Professor of Landscape Architecture) Dr. I. (Ingrid) Duchhart (Assistant Professor of Landscape Architecture) R. (Raoul) Beunen (Assistant Professor of Spatial Planning) Dr. M. Martijn Duineveld (Assistant Professor of Human Geography) Prof. K.V. (Karlè) Sykora (Associate Professor of Landscape Ecology) R. (Rudi) van Etteger (Assistant Professor of Landscape Architecture) Dr. G.J. (Gerrit-Jan) Carsjens, PhD (Assistant Professor of Spatial Planning) Dr. H.J. (Henk) de Haan (Associate Professor of Cultural Geography)
16:30 – 16:45	break
16:45 – 17:15	<b>Students, Programme Committee, BLP and MLP</b> T. (Tijs) van den Brink (Member, Programme Committee 2011 – now) M. (Marlinda) Maris (Member, Programme Committee 2010 – 2011) E. (Eline) van Bommel (Member, Programme Committee 2011 – now)
17:15 – 18:00	Preparatory meeting for final meeting (committee)
19:00	Dinner for committee
<b>22 March 2012</b>	
9:00 – 9:45	<b>Final meeting with management (final responsibility for programme)</b> Prof. A. (Adri) van den Brink (Chairman of Programme Committee) J.F.B. (Jan) Philipsen (Programme Director) Prof. C. (Claudio) Minca (Chair holder in Cultural Geography)
9:45 – 11:00	Drafting of preliminary findings by committee
11:00 – 11:15	Presentation of the preliminary findings by committee chair

## Programme for Kick-off meeting, 21 February: Common part of critical reflections

09.00-09.15	<b>Welcome by the Rector and the Director of the EI<sup>1</sup></b>
09.15-11.00	<b>Preparatory meeting of assessment panel</b>
11.00-12.15	<b>General management programmes:</b> P. (Paulien) Poelarends (member, Board of the EI) R.A. (Rosella) Koning (member, Board of the EI) Prof. T.W.M. (Thom) Kuyper (member, Board of the EI) Prof. L.E. (Leontine) Visser (member, Board of the EI) Prof. E.W. (Pim)Brascamp (Director of the EI) J.J. (Jan) Steen (Quality assurance and enhancement officer)
12.15-12.45	Lunch
12.45-13.30	<b>Study Advisers:</b> Dr. A.E.M. (Anja) Janssen (BSc and MSc Food Technology, Food Safety, Food Quality Management) C.M. (Neeltje) van Hulten (BSc and MSc Agriculture and Bioresource Engineering) C.Q.J.M. (Stijn) Heukels (BSc and MSc Landscape Architecture and Planning) W.T. (Willy) ten Haaf (MSc Geo-Information Science) Dr. W. (Wouter) Hazeleger (MSc Animal Sciences) [not present] R.N.M. (Gineke) Boven (BSc Management and Consumer Studies)
13.30-14.30	<b>Examining boards:</b> Dr. P.B.M. (Paul) Berentsen (secretary, EB <sup>2</sup> Social Sciences) Dr. M.C.R. (Maurice) Franssen (secretary, EB Technology and Nutrition) C.P.G.M. (Lisette) de Groot (chair, EB Technology and Nutrition) Dr. D. (Dick) van der Hoek (secretary, EB Environment and Landscape) Dr. K. (Klaas) Swart (secretary, EB Life Sciences) Prof. W (Willem) Takken (chair, EB Life Sciences)
14.30-14.45	Break
14.45-15.45	<b>Lecturers of Programme Committees:</b> Dr. A.J.B. (Ton) van Boxtel (Biotechnology and Bioinformatics) Dr. J. (Jan) den Ouden (Forest and Nature Conservation) Dr. K.B.M. (Karin) Peters (Leisure, Tourism and Environment) Dr. W.A.H. (Walter) Rossing (Organic Agriculture) Dr. R. (Rico) Lie (International Development Studies) Dr. W.T. (Wilma) Steegenga (Nutrition and Health)
15.45-17.15	<b>Meeting of assessment panel:</b> evaluation and first findings
17.15-18.00	<b>Graduates:</b> Francesco Cecchi, MSc (MSc International Development Studies) Prof. Charlotte de Fraiture (MSc International Land and Water Management) Dr. Dinand Ekkel (MSc Animal Sciences) Loes Mertens (MSc Organic Agriculture) M. Visser (MSc Forest and Nature Conservation)

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<sup>1</sup> EI = Education Institute

<sup>2</sup> EB = Examining Board

## Appendix 7: Theses and documents studied by the committee

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Prior to the site visit, the committee studied the theses of the students with the following student numbers:

### **Bachelor programme (BLP)**

871108731090	890920233060
890328048090	890811054120
880912846060	890611063030
900913732030	890517892030
880203314120	870210957070
890829127110	890411401100
890628838060	810712249100

### **Master Programme (MLP)**

720905346070	851218173130
870724996050	790622771120
820806026040	810807156120
830101515100	840511616100
830914015100	831027675010
840214548030	860916115020
840224302060	

During the site visit, the committee studied the following documents (partly as hard copies, partly via the institute's electronic learning environment):

- Reports of consultations with relevant committees / organs (programme committee and examinations committee, relevant ad-hoc committees);
- Examination tasks with associated evaluation criteria and standard (answer keys) and a representative selection of completed examinations (presentations, internship and/or research reports, portfolios, etc.) and their evaluations;
- List of required literature;
- Summary and analysis of recent evaluation results and relevant management information;
- Thesis regulations and guidelines for preparing projects;
- Internship regulations/handbooks;
- Course, staff and curriculum evaluations, student satisfaction survey(s), etc.;
- Alumni/exit questionnaires;
- Material about the student associations;
- Documentation on teaching staff satisfaction.



# Appendix 8: Declarations of independence



## DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: FRANS ZWARTS

HOME ADDRESS: PETRUS CAMPERSINGEL 259  
9713 AP GORINGEN

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

LIFE SCIENCES, SEE ATTACHMENT

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

WAGENINGEN UNIVERSITY

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE:

Bijlage bij onafhankelijkheidsverklaring

Visitebezoek	Opleiding (CROHO nummer)	Variant
A. Food Technology	B Levensmiddelenwetenschap (BLT; 56973)	Volgt
	M Food Safety (MFS; 60112)	Volgt
	M Food Technology (ALT; 66593)	Volgt
B. Biotechnology en Bio-informatica	M Food Quality Management (MQ; 60106)	Volgt
	B Biotechnologie (BBT; 56841)	Volgt
	M Biotechnologie (MT; 66841)	Volgt
C. Agricultural and Bioscience Engineering	M Bioinformatics (MBF; 60106)	Volgt
	B Agrotechnologie (BAT; 56831)	Volgt
	M Agricultural and Bioscience Engineering (MAB; 66831)	Volgt
D. Forest and Nature conservation	B Bio- en Natuurbeheer (BBN; 56219)	Volgt
	M Forest and Nature Conservation (MFN; 66219)	Volgt
E. International Land and Water Management	B International Land- en Waterbeheer (BIL; 60100)	Volgt
	M International Land and Water Management (ML; 60104)	Volgt
F. Landscape, Architecture and Planning	B Landschapsarchitectuur en ruim. Planning (BLP; 56848)	Volgt
	M Landscape, Architecture and Planning (MLP; 66848)	Volgt
G. Leisure, Tourism and Environment	M Leisure, Tourism and Environment (MLE; 60111)	Volgt
	M Geo-Information Science (MG; 60108)	Volgt
H. Geo-Information Science	B Plantenwetenschappen (BPLW; 56835)	Volgt
	M Plant Sciences (MPS; 66835)	Volgt
	M Organic Agriculture (MOA; 60300)	Volgt
I. Plant Sciences	M Plant Biotechnology (MPB; 60105)	Volgt
	R Dierwetenschappen (RTW; 56845)	Volgt
	M Animal Sciences (MAS; 66849)	Volgt
J. Animal Sciences	M Climate Studies (MCL; 60107)	Volgt
	B Internationale Ontwikkelingsstudies (BIN; 56837)	Volgt
K. Climate Studies	M International Development Studies (MID; 66837)	Volgt
	M Development and Rural Innovation (MRI; 60103)	Volgt
	B Biofys. en Consumentwetenschappen (BBS; 66836)	Volgt
L. International Development Studies	M Management, Economics and Consumer Studies (ME; 66839)	Volgt
	B Voeding en Gezondheid (BVG; 56868)	Volgt
M. Management, Economics and Consumer Studies	M Nutrition and Health (MNH; 66868)	Volgt
	N. Nutrition and Health	



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS:

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INsofar AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Nageningen DATE: March 30, 2012

SIGNATURE:

**DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY**  
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: RENATE PREVEN

HOME ADDRESS: Simon Stevinweg 21  
1401 TB Buijsum

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SPECIALIST:

LIFE SCIENCES - SEE ATTACHMENT

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

WAGENINGEN UNIVERSITY

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

Bijlage bij onafhankelijkheidsverklaring

Visitebezoek	Opleiding (CROHO-nummer):	Variant:
A. Food Technology	B Levensmiddelen technologie (BLT; 56973)	Volgt
	M Food Safety (MFS; 60112)	Volgt
	M Food Technology (MFT; 66073)	Volgt
	M Food Quality Management (MQ; 60109)	Volgt
B. Biotechnology en Bio-informatics	B Biotechnologie (BBT; 56841)	Volgt
	M Biotechnologie (MBT; 66841)	Volgt
C. Agricultural and Bioresource Engineering	M Bioinformatics (MBF; 60108)	Volgt
	B Agrotechnologie (BAT; 56831)	Volgt
D. Forest and Nature conservation	M Agricultural and Bioresource Engineering (MAB; 66831)	Volgt
	B Bos- en Natuurbeheer (BBN; 56210)	Volgt
E. International Land and Water Management	M Forest and Nature Conservation (MFN; 66219)	Volgt
	B International Land- en Watersbeheer (BIL; 60100)	Volgt
F. Landscape, Architecture and Planning	M International Land and Water Management (MIL; 60104)	Volgt
	B Landschapsarchitectuur en ruim. Planning (BLP; 56848)	Volgt
G. Leisure, Tourism and Environment	M Landscape, Architecture and Planning (MLP; 66848)	Volgt
	M Leisure, Tourism and Environment (MLE; 60111)	Volgt
H. Geo-Information Science	M Geo-Information Science (MGS; 60108)	Volgt
	B Plantenwetenschappen (BPW; 56835)	Volgt
I. Plant Sciences	M Plant Sciences (MPS; 66835)	Volgt
	M Organic Agriculture (MOA; 66300)	Volgt
	M Plant Biotechnology (MPB; 60105)	Volgt
J. Animal Sciences	B Dierwetenschappen (BZW; 56846)	Volgt
	M Animal Sciences (MAS; 66846)	Volgt
K. Climate Studies	M Climate Studies (MCL; 60107)	Volgt
	B Internationale Ontwikkelingsstudies (BIN; 56837)	Volgt
L. International Development Studies	M International Development Studies (MID; 66837)	Volgt
	M Development and Rural Innovation (MDR; 60103)	Volgt
M. Management, Economics and Consumer Studies	B Bedrijfs- en Consumentenwetenschappen (BBC; 56836)	Volgt
	M Management, Economics and Consumer Studies (MME; 66836)	Volgt
N. Nutrition and Health	B Voeding en Gezondheid (BVG; 56868)	Volgt
	M Nutrition and Health (MNH; 66868)	Volgt

HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INsofar AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO.

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: wageningen DATE: 29-03-12

SIGNATURE:





**DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY**  
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Prof. Dr.-Ing. Diedrich Bruns

HOME ADDRESS: Uhlandstraße 6  
34119 Kassel  
Germany

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

Landscape Architecture and Planning

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

University of Kassel, Mönchebergstraße 19, 34109 Kassel  
Germany

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

1



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, IN SO FAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Kassel DATE: 29.03.2012

SIGNATURE:

2



**DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY**  
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Geus de Roo

HOME ADDRESS: Grouwseweg 6, 9766 TD  
Eelderwolde

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

Landscape Architecture & Planning  
Wageningen University

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

Wageningen University

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

1



HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, IN SO FAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Groning DATE: 11. mei 2012

SIGNATURE:

2

**DECLARATION OF INDEPENDENCE AND CONFIDENTIALITY**  
TO BE SUBMITTED PRIOR TO THE ASSESSMENT OF THE PROGRAMME

THE UNDERSIGNED

NAME: Dennis Jansen  
HOME ADDRESS: Maarten Sabbeijerlaan 6  
3525 XW Utrecht

HAS BEEN ASKED TO ASSESS THE FOLLOWING PROGRAMME AS AN EXPERT / SECRETARY:

Landscape, Architecture and Planning

APPLICATION SUBMITTED BY THE FOLLOWING INSTITUTION:

Wageningen University

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION, WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;

HEREBY CERTIFIES TO NOT HAVING MAINTAINED SUCH CONNECTIONS OR TIES WITH THE INSTITUTION DURING THE PAST FIVE YEARS;

CERTIFIES TO OBSERVING STRICT CONFIDENTIALITY WITH REGARD TO ALL THAT HAS COME AND WILL COME TO HIS/HER NOTICE IN CONNECTION WITH THE ASSESSMENT, INSOFAR AS SUCH CONFIDENTIALITY CAN REASONABLY BE CLAIMED BY THE PROGRAMME, THE INSTITUTION OR NVAO;

HEREBY CERTIFIES TO BEING ACQUAINTED WITH THE NVAO CODE OF CONDUCT.

PLACE: Utrecht DATE: 31-03-2012

SIGNATURE: [Signature]

HEREBY CERTIFIES TO NOT MAINTAINING ANY (FAMILY) CONNECTIONS OR TIES OF A PERSONAL NATURE OR AS A RESEARCHER / TEACHER, PROFESSIONAL OR CONSULTANT WITH THE ABOVE INSTITUTION WHICH COULD AFFECT A FULLY INDEPENDENT JUDGEMENT REGARDING THE QUALITY OF THE PROGRAMME IN EITHER A POSITIVE OR A NEGATIVE SENSE;



## Appendix 9: Rubric for the assessment of a MSc-thesis

Author: Arnold F. Moene, Meteorology and Air Quality Group, Wageningen University

Version: 1.1 (December 15, 2010)

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Item	Mark for item					
	2-3	4-5	6	7	8	9-10
1. Research competence (30-60%) *						
<b>1.1. Commitment and perseverance</b>	Student is not motivated. Student escapes work and gives up regularly	Student has little motivation. Tends to be distracted easily. Has given up once or twice	Student is motivated at times, but often, sees the work as a compulsory task. Is distracted from thesis work now and then.	The student is motivated. Overcomes an occasional setback with help of the supervisor.	The student is motivated and/or overcomes an occasional setback on his own and considers the work as his "own" project.	The student is very motivated, goes at length to get the most out of the project. Takes complete control of his own project. Considers setbacks as an extra motivation.
<b>1.2. Initiative and creativity</b>	Student shows no initiative or new ideas at all.	Student picks up some initiatives and/or new ideas suggested by others (e.g. supervisor), but the selection is not motivated.	Student shows some initiative and/or together with the supervisor develops one or two new ideas on minor parts of the research.	Student initiates discussions on new ideas with supervisor and develops one or two own ideas on minor parts of the research.	Student has his own creative ideas on hypothesis formulation, design or data processing.	Innovative research methods and/or data-analysis methods developed. Possibly the scientific problem has been formulated by the student.
<b>1.3. Independence</b>	The student can only perform the project properly after repeated detailed instructions and with direct help from the supervisor.	The student needs frequent instructions and well-defined tasks from the supervisor and the supervisor needs careful checks to see if all tasks have been performed.	The supervisor is the main responsible for setting out the tasks, but the student is able to perform them mostly independently	Student selects and plans the tasks together with the supervisor and performs these tasks on his own	Student plans and performs tasks mostly independently, asks for help from the supervisor when needed.	Student plans and performs tasks independently and organizes his sources of help independently.
	No critical self-reflection at all.	No critical self-reflection at all.	Student is able to reflect on his functioning with the help of the supervisor only.	The student occasionally shows critical self-reflection.	Student actively performs critical self-reflection on some aspects of his functioning	Student actively performs critical self-reflection on various aspects of his own functioning and performance.
<b>1.4. Efficiency in working with data</b> Note: depending on the characteristics of the thesis work, not all three aspects	<b>Experimental work</b>	Student is able to execute detailed instructions to some extent, but errors are made often, invalidating (part of) the experiment.	Student is able to execute an experiment that has been designed by someone else (without critical assessment of sources of error and uncertainty).	Student is able to execute an experiment that has been designed by someone else. Takes sources of error and uncertainty into account in a qualitative sense.	Student is able to judge the setup of an existing experiment and to include modifications if needed. Takes into account sources of error and uncertainty quantitatively.	Student is able to setup or modify an experiment exactly tailored to answering the research questions. Quantitative consideration of sources of error and uncertainty. Execution of the experiment is flawless.
	Student is not able to setup and/or execute an experiment.					

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
(experimental work, data analysis and model development) may be relevant and some may be omitted	<b>Data analysis</b> Student is lost when using data. Is not able to use a spreadsheet program or any other appropriate data-processing program.	Student is able to organize the data, but is not able to perform checks and/or simple analyses	Student is able to organize data and perform some simple checks; but the way the data are used does not clearly contribute to answering of the research questions and/or he is unable to analyze the data independently.	Student is able to organize the data, perform some basic checks and perform basic analyses that contribute to the research question	Student is able to organize the data, perform commonly used checks and perform some advanced analyses on the data	Student is able to organize the data, perform thorough checks and perform advanced and original analyses on the data.
	<b>Model development</b> Student is not able to make any modification/addition to an existing model.	Student modifies an existing model, but errors occur and persist. No validation.	Student is able to make minor modifications (say a single formula) to an existing model. Superficial validation or no validation at all.	Student is able to make major modifications to an existing model, based on literature. Validation using some basic measures of quality.	Student is able to make major modifications to an existing model, based on literature or own analyses. Validation using appropriate statistical measures.	Student is able to develop a model from scratch, or add an important new part to an existing model. Excellent theoretical basis for modelling as well as use of advanced validation methods.
<b>1.5. Handling supervisor's comments and development of research skills</b>	Student does not pick up suggestions and ideas of the supervisor	The supervisor needs to act as an instructor and/or supervisor needs to suggest solutions for problems	Student incorporates some of the comments of the supervisor, but ignores others without arguments	Student incorporates most or all of the supervisor's comments.	Supervisor's comments are weighed by the student and asked for when needed.	Supervisor's comments are critically weighed by the student and asked for when needed, also from other staff members or students.
	Knowledge and insight of the student (in relation to the prerequisites) is insufficient and the student is not able to take appropriate action to remedy this	There is some progress in the research skills of the student, but suggestions of the supervisor are also ignored occasionally.	The student is able to adopt some skills as they are presented during supervision	The student is able to adopt skills as they are presented during supervision and develops some skills independently as well	The student is able to adopt new skills mostly independently, and asks for assistance from the supervisor if needed.	The student has knowledge and insight on a scientific level, i.e. he explores solutions on his own, increases skills and knowledge where necessary.
<b>1.6. Keeping to the time schedule</b>	Final version of thesis or colloquium more than 50% of the nominal period overdue without a valid reason (force majeure)	Final version of thesis or colloquium at most 50% of the nominal period overdue (without a valid reason).	Final version of thesis or colloquium at most 25% of nominal period overdue (without valid reason)	Final version of thesis or colloquium at most 10% of nominal period overdue (without valid reasons)	Final version of thesis or colloquium at most 5% of nominal period overdue (without good reasons)	Final version of thesis and colloquium finished within planned period (or overdue but with good reason).
	No time schedule made.	No realistic time schedule.	Mostly realistic time schedule, but no timely adjustment of time schedule.	Realistic time schedule, with some adjustments (but not enough or not all in time) in times only.	Realistic time schedule, with timely adjustments. of times only.	Realistic time schedule, with timely adjustments of both time and tasks.

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
2. Thesis report (30-60%) *						
<b>2.1. Relevance research, clearness goals, delineation research</b>	No link is made to existing research on the topic. No research context is described.	The context of the topic at hand is described in broad terms but there is no link between what is known and what will be researched.	The link between the thesis research and existing research does not go beyond the information provided by the supervisor.	Context of the research is defined well, with input from the student. There is a link between the context and research questions.	Context of the research is defined sharply and to-the-point. Research questions emerge directly from the described context.	Thesis research is positioned sharply in the relevant scientific field. Novelty and innovation of the research are indicated.
	There is no researchable research question and the delineation of the research is absent	Most research questions are unclear, or not researchable and the delineation of the research is weak	At least either the research questions or the delineation of the research are clear	The research questions and the delineation are mostly clear but could have been defined sharper at some points	The research questions are clear and researchable and the delineation is clear.	The research questions are clear and formulated to-the-point and limits of the research are well-defined.
<b>2.2. Theoretical underpinning, use of literature</b>	No discussion of underlying theory.	There is some discussion of underlying theory, but the description shows serious errors.	The relevant theory is used, but the description has not been tailored to the research at hand or shows occasional errors.	The relevant theory is used, and the description has been tailored partially successful to the research at hand. Few errors occur.	The relevant theory is used, it is nicely synthesized, and it is successfully tailored to the research at hand.	Clear, complete and coherent overview of relevant theory on the level of an up-to-date review paper. Exactly tailored to the research at hand.
	No peer-reviewed/primary scientific papers in reference list except for those already suggested by the supervisor	Only a couple of peer-reviewed papers in reference list.	Some peer-reviewed papers in reference list but also a significant body of grey literature.	Relevant peer-reviewed papers in reference list but also some grey literature or text books. Some included references less relevant.	Mostly peer-reviewed papers or specialized monographs in reference list. An occasional reference may be less relevant.	Almost exclusively peer-reviewed papers in reference list or specialized monographs (not text books). All papers included are relevant.
<b>2.3. Use of methods and data</b>	No description of methods and/or data.	Research is not reproducible due to insufficient information on data (collection and/or treatment) and analysis methods	Some aspects of the research regarding data-collection, data-treatment, models or the analysis methods are described insufficiently so that that particular aspect of the research is not reproducible.	Description of the data (collection, treatment) or models as well as the analysis methods used is lacking in a number of places so that at most a more or less similar research could be performed.	Description of the data (collection, treatment) or models as well as the analysis methods used is mostly complete, but exact reproduction of the research is not possible due to lack of some details.	Description of the data (collection, treatment) or models as well as the analysis methods is complete and clear so that exact reproduction of the research is possible.
<b>2.4. Critical reflection on the research performed (discussion)</b>	No discussion and/or reflection on the research. Discussion only touches trivial or very general points of criticism.	Only some possible weaknesses and/or weaknesses which are in reality irrelevant or non-existent have been identified.	Most weaknesses in the research are indicated, but impacts on the main results are not weighed relative to each other.	Most weaknesses in the research are indicated and impacts on the main results are weighed relative to each other.	All weaknesses in the research are indicated and weighed relative to each other. Furthermore, (better) alternatives for the methods used are indicated.	Not only all possible weaknesses in the research are indicated, but also it is indicated which weaknesses affect the conclusions most.

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
	No confrontation with existing literature.	Confrontation with irrelevant existing literature.	Only trivial reflection vis-a-vis existing literature.	Only most obvious conflicts and correspondences with existing literature are identified. The value of the study is described, but it is not related to existing research.	Minor and major conflicts and correspondences with literature are shown. The added value of the research relative to existing literature is identified.	Results are critically confronted with existing literature. In case of conflicts, the relative weight of own results and existing literature is assessed. The contribution of his work to the development of scientific concepts is identified.
<b>2.5. Clarity of conclusions and recommendations</b>	No link between research questions, results and conclusions.	Conclusions are drawn, but in many cases these are only partial answers to the research question. Conclusions merely repeat results.	Conclusions are linked to the research questions, but not all questions are addressed. Some conclusions are not substantiated by results or merely repeat results.	Most conclusions well-linked to research questions and substantiated by results. Conclusions are mostly formulated clearly but with some vagueness in wording.	Clear link between research questions and conclusions. All conclusions substantiated by results. Conclusions are formulated exact.	Clear link between research questions and conclusions. Conclusions substantiated by results. Conclusions are formulated exact and concise. Conclusions are grouped/ordered in a logical way.
	No recommendations given.	Recommendations are absent or trivial.	Some recommendations are given, but the link of those to the conclusions is not always clear.	Recommendations are well-linked to the conclusions.	Recommendations are to-the-point, well-linked to the conclusions and original.	Recommendations are to-the-point, well-linked to the conclusions, original and are extensive enough to serve as project description for a new thesis project.
<b>2.6. Writing skills</b>	Thesis is badly structured. In many cases information appears in wrong locations. Level of detail is inappropriate throughout.	Main structure incorrect in some places, and placement of material in different chapters illogical in many places. Level of detail varies widely (information missing, or irrelevant information given).	Main structure is correct, but lower level hierarchy of sections is not logical in places. Some sections have overlapping functions leading to ambiguity in placement of information. Level of detail varies widely (information missing, or irrelevant information given).	Main structure correct, but placement of material in different chapters illogical in places. Level of detail inappropriate in a number of places (irrelevant information given).	Most sections have a clear and unique function. Hierarchy of sections is mostly correct. Ordering of sections is mostly logical. All information occurs at the correct place, with few exceptions. In most places level of detail is appropriate.	Well-structured: each section has a clear and unique function. Hierarchy of sections is correct. Ordering of sections is logical. All information occurs at the correct place. Level of detail is appropriate throughout.
	Formulations in the text are often incorrect/inexact inhibiting a correct interpretation of the text.	Vagueness and/or inexactness in wording occur regularly and it affects the interpretation of the text.	The text is ambiguous in some places but this does not always inhibit a correct interpretation of the text.	Formulations in text are predominantly clear and exact. Thesis could have been written more concisely.	Formulations in text are clear and exact, as well as concise.	<i>Textual</i> quality of thesis (or manuscript in the form of a journal paper) is such that it could be acceptable for a peer-reviewed journal.

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
3. Colloquium (5%) *						
<b>3.1. Graphical presentation</b>	Presentation has no structure.	Presentation has unclear structure.	Presentation is structured, though the audience gets lost in some places.	Presentation has a clear structure with only few exceptions.	Presentation has a clear structure. Mostly a good separation between the main message and side-steps.	Presentation clearly structured, concise and to-the-point. Good separation between the main message and side-steps.
	Unclear lay-out. Unbalanced use of text, graphs, tables or graphics throughout. Too small font size, too many or too few slides.	Lay-out in many places insufficient: too much text and too few graphics (or graphs, tables) or vice versa.	Quality of the layout of the slides is mixed. Inappropriate use of text, tables, graphs and graphics in some places.	Lay-out is mostly clear, with unbalanced use of text, tables, graphs and graphics in few places only.	Lay-out is clear. Appropriate use of text, tables, graphs and graphics.	Lay-out is functional and clear. Clever use of graphs and graphics.
<b>3.2. Verbal presentation and defense</b>	Spoken in such a way that majority of audience could not follow the presentation.	Presentation is uninspired and/or monotonous and/or student reads from slides: attention of audience not captured	Quality of presentation is mixed: sometimes clear, sometimes hard to follow.	Mostly clearly spoken. Perhaps monotonous in some places.	Clearly spoken.	Relaxed and lively though concentrated presentation. Clearly spoken.
	Level of audience not taken into consideration at all.	Level of audience hardly taken into consideration.	Presentation not at appropriate level of audience.	Level of presentation mostly targeted at audience.	Level of presentation well-targeted at audience. Student is able to adjust to some extent to signals from audience that certain parts are not understood.	Clear take-home message. Level well-targeted at audience. Student is able to adjust to signals from audience that certain parts are not understood.
	Bad timing (way too short or too long).	Timing not well kept (at most 30% deviation from planned time).	Timing not well kept (at most 20% deviation from planned time).	Timing is OK (at most 10% deviation from planned time).	Timing is OK.	Presentation finished well in time.
	Student is not able to answer questions.	Student is able to answer only the simplest questions	Student answers at least half of the questions appropriately.	Student is able to answer nearly all questions in an appropriate way.	Student is able to answer all questions in an appropriate way, although not to-the-point in some cases.	Student is able to give appropriate, clear and to-the-point answers to all questions.

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
4. Examination (5%) *						
<b>4.1. Defense of the thesis</b>	Student is not able to defend/discuss his thesis. He does not master the contents	The student has difficulty to explain the subject matter of the thesis.	Student is able to defend his thesis. He mostly masters the contents of what he wrote, but for a limited number of items he is not able to explain what he did, or why.	Student is able to defend his thesis. He masters the contents of what he wrote, but not beyond that. Is not able to place thesis in scientific or practical context.	Student is able to defend his thesis, including indications where the work could have been done better. Student is able to place thesis in either scientific or practical context.	Student is able to freely discuss the contents of the thesis and to place the thesis in the context of current scientific literature and practical contexts.
<b>4.2. Knowledge of study domain</b>	Student does not master the most basic knowledge (even below the starting level for the thesis).	The student does not understand all of the subject matter discussed in the thesis.	The student understands the subject matter of the thesis on a textbook level.	The student understands the subject matter of the thesis including the literature used in the thesis.	Student is well on top of subjects discussed in thesis: not only does he understand but he is also aware of current discussions in the literature related to the thesis topic.	Student is well on top of subjects discussed in thesis: not only does he understand but he is also aware of discussions in the literature beyond the topic (but related to) of the thesis.

## Manual for use of the thesis evaluation form and the MSc-thesis assessment rubric (version 1.1) of Wageningen University

### User instructions

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- Grading the thesis work is generally done by two persons, the daily supervisor and the second reviewer/examiner. For the sake of grading uniformity, it is highly recommended by the Exam Boards that the second reviewer within a chair group is always the same person. Preferably it is the head of the group.
- The thesis evaluation form has four categories. The research competence category can only be filled in by the daily supervisor as this person has worked with the student. The Thesis report category can most objectively be filled in by the second reviewer who was not involved in the thesis process, as grading the thesis report should not be biased by positive or negative experiences with the student. The daily supervisor who has these experiences can take these into account when grading the research competence.
- Use of the comment fields on the thesis evaluation form is highly recommended. It is an extra feedback for the student.
- The assessment rubric has the form of an analytic rubric (see e.g. Andrade (2005), Reynolds *et al.* (2009), URL1, URL2). Each line discusses one **criterion** for assessment. Each column gives a **level** for the grading. Each cell contains the **descriptor** of the level for that criterion.
- The criteria in the rubric exactly follow the items presented in the Excel worksheet “Thesis evaluation Wageningen University” constructed by the Exam Boards. In a few cases the criteria in the original thesis evaluation document were split into two or more parts because the description of the criteria clearly covered different subjects.
- Since the final mark is composed of so many criteria, the scores on individual criteria should be discriminative. Not all levels are equally broad in marks. Since the final marks of theses usually range between 6 and 9, in the rubric individual levels have been established for the marks of 6, 7 and 8. When performance is at the 9-10 level, decide whether the student is on the low edge (9) or high edge (10) of this level. Descriptions at the 9-10 level tend to describe the ultimate performance (10). Hence, if a student performs well above 8, but below the description at the 9-10 level, a 9 would be the appropriate mark.
- Keep in mind that each line in the rubric should be read independently: it could be that a student scores a 2-3 on one criterion and a 9-10 on another.
- Always start at the lowest mark in the rubric, and test if the student should be awarded the next higher mark. In some cases achievements of a next lower level are not repeated at the higher level (i.e. the lower level achievements are implicit in the higher levels). Furthermore, if a level has a range of marks, choose the most appropriate one (consider the description of the level of performance as a continuum, rather than a discrete description).
- Wherever the student is indicated as ‘he’, one can also read ‘she’.

### Remarks

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- This rubric has been validated by a number of supervisors by comparing the original grade of a number of theses to the grade resulting from this rubric.

- The main intention of using a rubric is enhance homogeneity of assessments and the ability to communicate about assessments both with students and with colleagues. Furthermore, it clarifies to students the expectations of the supervisor and helps the supervisor to structure feedback during the process of thesis research. Although the intention is to homogenize the process of assessment, it should be noted that even with the use of a rubric some arbitrariness will remain.
- The two main categories on the thesis evaluation form (research competence and thesis report) should have an assessment of 'sufficient' (i.e.  $\geq 5.5$ ) before the total thesis work can be considered as sufficient. So, no compensation between these main categories is possible to obtain the lowest final mark of 6.0.
- Please report any positive or negative experiences with and suggestions for the rubric to [arnold.moene@wur.nl](mailto:arnold.moene@wur.nl).
- Author of the rubric: Arnold F. Moene (Meteorology and Air Quality Group, Wageningen University), with valuable contributions from Ellis Hofland, Edwin Peeters, Tamar Nieuwenhuizen, Maarten Holtslag, George Bier, Gerard Ros, Lijbert Brussaard, Judith Gulikers and Paul Berentsen.

## References

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Andrade, H.G, 2005. Teaching With Rubrics: The Good, the Bad, and the Ugly. *College Teaching* **53**, p. 27-31.

Reynolds, J., R. Smith, C. Moskovitz and A. Sayle, 2009. BioTAP: A Systematic Approach to Teaching Scientific Writing and Evaluating Undergraduate Theses. *Bioscience* **59**, p. 896-903.

URL1: <http://jonathan.mueller.faculty.noctrl.edu/toolbox/rubrics.htm> (last visited November 17, 2009).

URL2: [http://en.wikipedia.org/wiki/Rubric\\_\(academic\)](http://en.wikipedia.org/wiki/Rubric_(academic)) (last visited November 17, 2009).



## Appendix 10: Overview and explanation of teaching methods

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### Reflexive learning

The redefinition of the roles of landscape architects and spatial planner in society requires a process of systematic self-reflection of landscape architects and spatial planners and a thorough reflection on their disciplines. Universities – through education and research – are primary sites of rejuvenation. Reflexivity of university graduates is essential to increase their innovative capacity and adaptive potential. Therefore students should be enabled to make planning and design practices object of reflection and to reflect on their own role and position within the field. In the programme they learn that there are no clear cut methods, tools or approaches that can simply be applied to all planning and design contexts. In theory courses they become familiar with a multitude of planning and design approaches and methods. The assignments of design and planning studios and supporting courses are closely connected to *real* planning and design processes in very specific and different planning and design contexts. At all times students are stimulated to reflect critically on the (commissioned) assignment and the context in which it takes place and to consult a wide variety of actors that are involved in the case.

### Experiential learning

Both in individual courses and in the curriculum as a whole, students go through a learning cycle of concrete experiences, reflective observation, abstract conceptualization and active experimentation, whereby the steps may occur in nearly any order. Students get plenty of opportunities to immerse themselves in vivid real world planning and design experiences. During the large number of field excursions they get acquainted with a variety of different landscapes: as a matter of fact the landscape is the laboratory of the programme. In studios and even in some studio-supporting courses, students are confronted with real world cases and projects in which they participate and on which they reflect. From year 1 they are challenged to be creative in devising solutions for planning and design problems. The level of complexity increases throughout the curriculum. A large number of supporting courses (ranging from *Ecology 1* to *Spatial Planning Theory and Methodology*) help students to relate their experiences to more abstract knowledge. By gaining more knowledge in these supporting courses, they learn to develop more legitimate planning and design solutions, but at the same time they learn how to take decisions in uncertainty.

### Studio based learning

Reflexive and experiential learning materialize in studio based learning: students work individually or in small groups on planning and design proposals for landscape interventions. Supervision and guidance include frequent consultations and presentations. The studio supports specific learning processes by offering teaching methods like excursions, lectures, small experiments and consultation hours, during which external practitioners advise on the students' intermediate plans and designs. These are also accommodated in separate supporting courses.