Wageningen University - Social Sciences

MSc Thesis Protocol

Rules and Regulations

For the
MSc Communication, Health and Life Sciences (MCH)
MSc Development and Rural Innovation (MDR)
MSc International Development Studies (MID)
MSc Management, Economics and Consumer Studies (MME)

December 2017

MSc programmes

WAGENINGEN
UNIVERSITY & RESEARCH

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APENDICES

The Protocol and all the annexes can be downloaded from the OWI reference site: MSc Thesis Protocol Social Sciences.

Appendices II and III can also be downloaded from the OWI reference site (under 'formulieren').

Forms and rubrics can also be found on the pages of the Examining Board: Thesis Assessment Forms (UK and NL).

1. Introduction

This protocol describes the rules and procedures for the thesis writing and supervision process of the MSc Social Sciences MSc programmes of Wageningen University. The protocol is meant for students and staff and is part of the internal quality assurance system of the MSc programs involved.

The protocol applies in the first place to the final thesis of the MSc programs and will, with the exception of the admission requirements, also be used for second theses. It includes information on the goal of the thesis, the role of the thesis agreement, the admission requirements, the responsibilities of the key actors, the assessment procedure, plagiarism and the submission requirements of the final thesis. The appendices contain an example of the MSc thesis agreement, the MSc thesis assessment form, a rubric for assessment of the MSc thesis and a format for the cover page of the thesis.

This MSc thesis protocol replaces the version of December 2013. The current version is a product of close collaboration between the Examining Board Social Sciences and the involved Program Directors.

Updated December 2017

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2. Goal of the thesis

The overall goal of the MSc thesis is the development of research skills and the ability to analyse and present research results in a systematic and clear way. The thesis is the culmination of the MSc study program in which the student will have to show that he/she is able to design and conduct social science research at an academic level and is able to theoretically reflect on a particular field of research relevant to the MSc program at hand.

The thesis process, in which a student independently addresses a topic approved by the relevant chair group, is an individual learning process that can be started and finished at any time during the academic year in consultation with the supervising chair group, provided that the admission requirements have been met. Upon completion of the MSc thesis, the master student is expected to be capable to independently conduct social science research. Hence, the main responsibility for a successful thesis process rests with the student, who is expected to take an active role and to display growing independence and maturity during the thesis trajectory, but has to consult regularly with the assigned supervisor(s) regarding progress.

After successful completion of the thesis the student is expected to be able to:

- Carry out the different phases of research in an independent manner within a previously agreed time span;
- Evaluate theories and apply these theories to a relevant scientific issue in a particular domain relevant to the MSc program of the student;
- Apply a work ethic appropriate to the performance of scientific research, the development of scientific understanding and its application;
- Write and edit a well-structured thesis.

The acquisition process of specific research skills generally relates to proposal writing, data collection and data analysis and the writing of the thesis. In detail, the following aspects can be distinguished:

Proposal writing

- The selection and justification of a scientifically and, if desired, socially relevant research problem**,** possibly but not necessarily with the potential for further research;
- The formulation of the research objective and clearly defined research questions;
- The identification and selection of appropriate research methods;
- The selection and review of appropriate literature relevant to the specific research problem (‘state of the art’);
- The explication of the underlying theoretical assumptions of the research approach and/or the establishment of an adequate analytical or conceptual framework;
- Clear delineation of the results;
- The written presentation of a clear research proposal, including time schedule.

Data collection[1]

- The collection of data (the required information) by applying appropriate research methods and techniques according to good academic practice;
- Interim review of the collected data.

Data analysis and the writing of the thesis

- The processing, analysis and interpretation of the collected data in relation to the theory used;
- The selection and review of additional literature as new insights emerge;
- The oral presentation of (final) findings (colloquium);
- The writing of a well-structured and scientifically sound report: the thesis.

It has to be emphasized that in reality the research phases may not be so clear-cut.
The size of the major thesis varies between 30 and 39 credits. The actual size depends on the student’s study program and is agreed upon between student and study adviser. The scope of the research is to be aligned with the number of credits.

[1] This may be empirical data collection and/or literature research.

3. Supervision and thesis agreement

The thesis process is to be supervised by a specific chair group (depending on the student's specialization and the subject) and the main supervisor will be a qualified staff member of this chair group. All scientific staff with a PhD degree or with other relevant research experience qualify for thesis supervision. A PhD student may be involved in the supervision, but not as the main supervisor. Qualified experts from other WUR units than the University and other universities can be involved in thesis supervision, but the final responsibility for supervision and marking remains with the supervising chair group. The role of external and other (co-)supervisors and chair groups has to be specified under item 5 of the Thesis Agreement in appendix II, for example in the case of Double Degrees.

The thesis agreement sets out the agreements made between the student and the thesis supervisor of a chair group (expected date of completion, frequency of meetings, absences, co-supervision, etc.). It registers the rights and duties of both parties and is a further supplement and elaboration of the Higher Education and Research Act (WHW), the Education and Exam Regulations of Wageningen University and the Student Charter. It is strongly recommended to regularly assess progress and check the agreement and, in discussion between the supervisor and the student, make adjustments in the agreement if needed. The establishment and signing of the agreement involves the student, the supervisor and the study adviser:

- Before a student can actually start the thesis process and before the thesis agreement can be prepared, the intended supervisor has to check with the study adviser whether the student has permission to start the thesis;
- It is the student's responsibility to ensure that the study adviser receives a copy of the signed thesis agreement within one week of signing the agreement;
- Without a signed thesis agreement and a research proposal approved by the supervisor, students are not allowed to start data collection.

In case of a jointly supervised thesis as part of a double degree program, this Protocol is leading as far as WU is concerned. Special arrangements between the two involved institutions have to be specified under item 8 of this agreement.

4. Prerequisites for admission to major thesis

With respect to the starting of the thesis, the Examining Board Social Sciences has decided that the individual student must satisfy the following requirements in order to obtain definite admission to the thesis (cf. article 30 of the Education and Examination Regulations)[2]:

- Successful completion of 12 credits mandatory prior knowledge (according to the study program and described in the Study Handbook);
- Satisfactory overall study progress, including possible supporting courses.

The Examining Board has delegated the implementation of the admission procedures to the study advisers.

5. Responsibilities of key actors

The MSc thesis project involves several key actors who will work according to the Code of Conduct for Academic Practice (see annex I). The code contains principles that all members of the academic community should observe both individually and vis-a-vis each other and society. The distribution of responsibilities in the thesis process is as follows:

- **Student's responsibilities:** The student is owner of his/her own thesis project and thus responsible for its successful completion. These responsibilities include proper planning of the thesis within his/her study program, finding a thesis topic, place for fieldwork, etc. The student is also responsible for the establishment of the thesis agreement in which, amongst others, agreements regarding the intensity and nature of supervision are specified. It is the student's responsibility to inform the supervisor and the study adviser of deviations from the agreement and of any delays in the thesis process, and for determining the consequences of any such delay (informing the sponsor of the scholarship, the student dean, adjusting the thesis agreement in discussion with the supervisor etc.).

[2] URL: https://www.wur.nl/upload_mm/e/4/8/ea67d1a7-7061-467c-93f8-3d2b37d8647b_2017-2018%20OER%20BAMA%20ENG_1.0def.pdf (Education and Examination Regulations Wageningen University 2017-2018 program).

Pending on the number of staff involved, and to be determined by the supervisor, the student must submit a sufficient number of clean hard copies of the thesis to the supervisor for the final assessment. After the oral defence the student has to make a digital version of the final thesis (pdf-file) available to the supervisor for filing purposes. The student is requested to submit a pdf-file version of the thesis to the study advisor.
Finally, the student always has to verify that the correct course code is used.
It is also strongly recommended that the student carefully completes the electronic evaluation form that will be sent to him/her once the thesis has been finalized and the mark put into the administrative system; feedback on the thesis process and its supervision is vital in maintaining standards and indispensable for making required improvements.

- **Study adviser's responsibilities:** The study adviser is responsible for monitoring the overall study progress of the individual student. The study adviser must determine whether or not the student meets the requirements for starting the master thesis project under supervision and inform the thesis supervisor upon his/her request. During the establishment of the student's study package and pending on the student's interests and study program, the study adviser can assist in identifying an appropriate chair group and supervisor.
- **Thesis coordinator's responsibilities:** The thesis coordinator of the chair group where the student does his/her thesis is responsible for finding a suitable thesis supervisor, for filing the thesis agreement and for informing the student regarding the chair group's specific procedures for thesis supervision. The thesis coordinator is responsible for keeping proper records of the theses conducted under supervision of the chair group and can, on behalf of the examiner, be charged with tasks like filing the final assessment forms and keeping clean copies of the final thesis.
- **Thesis supervisor's responsibilities**: The thesis supervisor is responsible for providing adequate supervision of the thesis for a student assigned to him or her. The (main) supervisor must be from the chair group that corresponds with the thesis code and thesis title as stated in the approved study program. In addition, another supervisor either from within or outside the university may be involved in the supervision, but the responsibility for primary supervision rests with the main supervisor. In the case of the specialization Communication and Innovation of MCH a co-supervisor from a life science chair group, relevant to the student's domain of choice, is mandatory.
  Before accepting to supervise a student, the supervisor has to check with the study adviser of the MSc program if the student has met all the requirements and if the subject of the thesis is related to the domain of the program. Based on an approved research proposal, the supervisor has to give explicit permission to the student to start the data collection (fieldwork).
  The supervisor and examiner(s) have the obligation to ascertain that the sources in the thesis are properly referenced preferably by screening it through Turnitin.
  Pending on the nature of the MSc thesis research, the supervisor has, in agreement with the examiner and within the indicated ranges, the right to adjust the relative weights of relevant clusters of the assessment form for individual students (see chapter 7). Such particularities have to be specified in the thesis agreement (section 9).
  The supervisor determines how many clean hard copies of the final thesis are required. In view of, amongst other things, the accreditation processes, the supervisor has to make sure that at least one electronic copy *and* the completed final assessment form are made available to the persons in charge of filing tasks, the ultimate responsibility remaining with the examiner.
- **Examiner's responsibilities**. The formally appointed examiner is responsible for the final assessment of the thesis and passing the grade for the correct course code. An examination involves at least two persons, the examiner or his/her delegate, and the supervisor, if relevant completed by other (co-)supervisors. According to the Rules and Regulations of the Examining Boards Wageningen University 2017-2018, "The Examiner is responsible for ensuring that the theses (BSc and MSc) are permanently stored with the corresponding signed assessment forms and corresponding materials, if any. For the MSc thesis, this is done by uploading theses to the Thesis Online depot of the Wageningen University central library." (Source: Rules and Regulations of the Examining Boards Wageningen University; Article 11, sub 3). It is up to the involved chair group and student to decide whether the thesis will be made public or not in the Digital Library. This task can be delegated to the thesis coordinator or other qualified staff members of the responsible chair group.

6. Stages of the thesis process

The following table summarizes the different stages of the thesis process.

When?	What?	Who?	How?	Conclusion?
Proposal writing and admission to the thesis	Topic and Supervisor identification First draft research proposal	Thesis coordinator Potential supervisor Study adviser (advise and permission) Supervisor and Student	Informal contacts Sufficient study progress Signing of the Thesis Agreement	Continue with the agreed supervisor on the identified topic
Permission to start data collection	Final research proposal	Student Supervisor	Progress meetings and approval of proposal	Green light for data collection or adjust proposal
Data Collection: Conducting the study (implementation phase) Mid-term review	Interim reports (monthly) to supervisor on progress of research Progress assessment	Student Supervisor	By e-mail or regular face-to-face progress discussions	Continue or adjust No formal decision-making Adjustment of Thesis Agreement
Data analysis and thesis writing	Preliminary findings reports and provisional Table of Contents Chapters Draft of Thesis	Supervisor Student	Feedback and Progress meeting Presentation (colloquium)	Continue or adjust weak/strong points
Final Assessment	Thesis	Head of chair group/ Examiner Supervisor(s) Student	Final assessment and oral defence	Grading
Submission of thesis	Upload thesis to the Wageningen UR Digital Library	Examiner (chair group)	Upload thesis through the AIR and decide if the thesis should be public	Thesis available at the Wageningen UR Digital Library
Evaluation	Evaluation of the thesis process and its supervision	Student Supervisor(s)	Evaluation course form (electronically)	Feedback to staff and program directors

7. Assessment procedure

Grading

The head of the supervising chair group (chair holder) is responsible for the examination of the thesis. The chair holder may delegate this task to another knowledgeable staff member. A PhD student cannot be a formal examiner. The final assessment including the oral defence has to be conducted by the examiner together with the supervisor. In the case of co-supervision, all supervisors should be present at the final evaluation. When the supervisor is the same person as the examiner specified in the Study Handbook, an independent examiner has to be nominated.

The final assessment, or oral defence, typically lasts one hour to discuss the quality of the thesis. The student is given the opportunity to answer specific questions raised by the examiner(s) and supervisor(s) in order to show to what extent he/she masters the research topic and to what extent he/she is able to participate in academic debate.

The examiner and the supervisor(s) jointly agree on the final mark using the criteria specified below and by filling in the MSc Thesis Assessment Form contained in Appendix III. If no agreement is reached, the formally appointed examiner casts the last vote. Appeal procedures exist via the Examination Board for all involved.

Assessment criteria
The final assessment of the thesis is done with the help of the MSc Thesis Assessment Form used throughout the university thus serving as a general quality maintenance device for external evaluation and accreditation purposes. To make grading as transparent and objective as possible a more extensive instrument called 'Rubric for assessment of MSc thesis' (see appendix IV a) has been developed for use in combination with the MSc Thesis Assessment Form. The Rubric is a scoring scale containing, per item of the assessment form, criteria for the measurement of the level of performance for each single criterion. Appendix IV b contains a short manual for use of the thesis assessment form in combination with the Rubric. The general orientation of the clusters on the MSc Thesis Assessment Form is as follows:

I. Research competence (30-60%)
This part assesses the research competences of the student. So it is an evaluation of the student as a researcher. This evaluation is based on the experience of the supervisor(s) with the student during the process of doing research and writing the thesis report. The learning process and the degree of manifested professionalism as a prospective independent researcher will be taken into consideration, just as the attitude of the student in terms of enthusiasm, commitment, effort and initiative, independency, originality and creativity. Other aspects relate to the student's responsiveness to supervisors' comments and the ability to work according to plan.

II. The thesis report (30-60%)
The product of the scientific work of the student is the thesis report. This is a piece of scientific work that can be evaluated in the same way as any other written scientific work (like a journal article or a report). Based on the classical contents of a scientific report (Summary - Introduction-Materials and Methods-Results-Discussion-Conclusions) the aspects in this cluster assess the level of these different parts of the report. It is important that the person who evaluates the thesis report is not biased by positive or negative experiences with the student as the thesis report should be evaluated as a piece of work as such. This means that the examiner is the most important person to evaluate the thesis report.

III. Colloquium (5-10%)
During the colloquium the student presents the work to an audience consisting of fellow students and staff members. Next to the visual and verbal quality of the presentation, the student's responses to (critical) questions from the audience are evaluated.

IV. Oral Defence (5-10%)
During the oral defence that concludes the thesis process, the student has to defend the thesis against critical comments of the examiner and the supervisor(s). In defending the thesis, the student should show that he/she has knowledge of the study domain. This means that the student should not only defend what he/she did, but also why it was done in this particular way and not in another way, and thus show that he/she is able to academically reflect on one's own work.

To allow for the special character or nature of the research conducted, the relative weight of the 4 clusters can vary within the indicated limits and as long as the weights sum up to 100. The first two clusters (research competence and thesis report) form the core of the assessment and must total at least 80%. The Examining Board Social Sciences has set the standard for research competence on 30% and for the final thesis report on 60%, chair groups having the freedom to adjust the standard percentages between the indicated ranges to better suit the particularities of the kind of research conducted by the chair group in general or the student in particular. Individual exceptions remain possible, values not matching the standards or ranges require permission from the Examining Board. For the colloquium and the oral defence the standard percentage is 5%. Adjustments to these standards have to be specified in the MSc Thesis Agreement under item 9.

Final assessment and special considerations
At the end of the oral defence, the final thesis assessment is made with the help of the MSc Thesis Assessment Form contained in Appendix III. The form is an Excel-spreadsheet that automatically generates the grades per cluster as well as the final result.
To conclude the thesis process successfully, the following restrictions exist:

- Each single cluster must be at least 5.5; if one cluster scores lower than 5.5 the final result will be a "fail", regardless of the total score.
- The final grade must be at least 5.5, rounding off taking place in line with the general WU procedures.

The meaning of the final grades is shown in the following table:

		Definition
10	**Excellent**	Outstanding performance in all respects without any errors. The highest proficiency in ability and application. The thesis is of PhD quality and has the potential of at least one publishable article. The thesis has a solid theoretical basis and contributes to the advancement of theory.
9	**Very Good**	Outstanding, exceptional and extraordinary performance with just some minor errors. Slightly less than the highest proficiency in ability and application. Superior mastery of subject matter, with evidence of independence and originality of thought. The thesis has a solid theoretical basis and contributes to the advancement of theory. The thesis may result in a publishable article.
8	**Good**	Generally sound work with a limited number of minor errors. Outstanding proficiency of research competencies and clear above-average mastery of subject matter. No major weaknesses.
7	**Satisfactory**	Thesis fair, acceptable and adequate. Acceptable mastery of research skills, but with some significant shortcomings. Satisfactory ability and achievement of a high but second order.
6	**Sufficient**	Performance meets the minimum criteria but below average. Limited mastery of subject matter.
5	**Fail**	Some more work required to be sufficient; poor but with pass potential.
<5	**Fail**	Considerable further work is required; unacceptable.

To conclude the assessment it is strongly advised, to add written comments in the boxes on the assessment form to provide the student with additional feedback.
The assessment form should be stored, in line with the responsibility of the examiner, at the level of the involved chair group.
In case of a jointly supervised thesis in the context of a Double Degree, the here described assessment procedure applies. The main supervisor can come from the partner institute, but the final assessment has to be done according to the protocol described procedure, the final responsibility for the marking remaining with the examiner of the WU chair group. Grades will not be automatically converted from the other institute to the WU system. Like WU has its own grading procedure, partner institutes are free to use their own and do have the option to convert the WU mark into their system.
The colloquium remains a compulsory part of the assessment procedure.

8. Plagiarism

All research is directly or indirectly based on and related to the intellectual work of others (their theories, their models or their research findings), making scientific writing a risky process, especially in an era in which 'cut and paste' possibilities are overwhelming. Using the work of someone else without properly acknowledging it, in short plagiarism, is considered theft of intellectual property.
Wageningen University heavily insists on properly documenting sources. In order to avoid plagiarism, staff is expected to screen all writings carefully and the University has made scanning software available for this purpose (Turnitin).

Students are expected to be familiar with proper referencing techniques. The WUR library has developed a number of online tutorials for Information Literacy (https://www.wur.nl/en/Expertise-Services/Facilities/Library/Students/IL.htm).

Additionally, students should have consulted at least one of the following sites before they start writing the thesis:

- Writing Tutorial Services http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml
- Citing and references http://www.monash.edu/rlo/research-writing-assignments/referencing-and-academic-integrity/citing-and-referencing

A valuable resource regarding referencing and plagiarism is Cite Them Right: The Essential Referencing Guide, by Richard Pears and Graham Shields (9th edition; ISBN-13: 978-1137273116; published by Palgrave Macmillan), which is recommended by Dr. Curtis Barrett, the lecturer of the MOS module Scientific Writing Skills (ECS 65600)."

A charge of plagiarism can have severe consequences; see for this purpose the Rules and Regulations of the Examining Boards, article 11 Article 11 Fraud and misconduct: sanctions and procedure p.6.

9. Submission requirements and procedures

A (hard)copy of the thesis, which must contain an English summary, must be available for each person who takes part in the final assessment (Oral Defence). The (hard)copies must be submitted to these persons at least one week before the date of the final assessment (oral defence). The student needs to submit making sure that the filing obligations as specified in the Rules and Regulations are satisfied.

The expenses for printing and copying a maximum of three copies of the final thesis can be submitted for reimbursement to the relevant chair group (see also the Student Charter: Regulation Wageningen University; payment of student's expenses, Regulations for expenses paid by Wageningen University, implementation, Copying and printing expenses, p2.). If the student decides to spend more than is absolutely necessary, for example to improve the appearance of the report, the student must pay these additional expenses.

The thesis is public and can be used by third parties. A study can be carried out for a third party and the results may be undisclosed and treated as confidential for a maximum period of 7 years. However a review committee must have access even to the confidential reports. This has to be specified in a special agreement (Appendix to the thesis agreement). Even if data have to be treated confidentially, the oral presentation (colloquium) remains mandatory. In the case of a confidential study the oral presentation can be given at the company's place (in presence of the supervisor(s). The Wageningen UR Digital Library to which the theses have to be uploaded (through the AIR; Administration Enrolment data and Results) contains an option to keep a thesis confidential, the default being public.

No standard index for the thesis is available since the index depends on the character of the research done. Each final thesis has to contain a proper summary in English. Appendix V contains the standard format for the cover page of the thesis. A thesis must contain a summary in English.

The study adviser would like to receive a pdf-file version of the thesis. The thesis can be used for illustrative purposes for prospective and current students of the program.

The Netherlands Code of Conduct for Academic Practice

Principles of good academic teaching and research

This text is an English translation of the Dutch original. In case of any divergence of interpretation, the Dutch text shall prevail.

The Hague, 2004
Revised 2012
Revised 2014; translation by Metamorfose Vertalingen BV

Association of Universities in the Netherlands (VSNU)

Contents

Preamble

This Netherlands Code of Conduct for Academic Practice was drawn up at the request of the Association of Universities in the Netherlands (Vereniging van Universiteiten, VSNU) in 2004. The wish for a Code of Conduct stems from the generally shared conviction that staff members[3] at institutions that fulfil a societal role are held to a proper exercise of their duties. Rules governing that correct exercise of duties should be established in writing to provide a shared frame of reference and, if necessary, a basis for calling each other to account.

1. The Code applies to academic practice, which is understood to include scientific and scholarly teaching and research at all universities[4] that have declared to uphold this Code. More precisely, the Code is intended for the individual academic practitioner, this being any person who is involved in academic research and teaching under the auspices of a university; this includes students. The Code also applies to those who bear administrative responsibility for academic practice.

2. The Code presumes the autonomous setting in which universities operate, which is a fundamental aspect of academic freedom. It is a university's responsibility to promote this freedom within the framework of its curricula and research programmes.

3. At the same time, the Code presumes that a university is a collaborative venture of diverse parties. This includes academic staff and academic practitioners in training, such as students and PhD students, as well as bodies that commission research and valorisation, such as the government, civil society organisations, businesses, research-funding organisations and users. The integrity of each academic practitioner is an essential condition for maintaining these stakeholders' faith in science and scholarship. Integrity is the foundation of good and reliable academic practice.

4. The Code contains principles that all members of the academic community should observe both individually and vis-à-vis each other and society. These principles can be read as general notions of good academic practice and as a self-regulatory instrument. The overarching principle is that every academic practitioner is bound by the frameworks established by Dutch and international legislation. These legal frameworks are not discussed in this Code of Conduct. A second overarching principle is transparency; every academic practitioner must (be able to) demonstrate how they put these principles into practice.

5. The principles defined in this Code are detailed further in the respective "Elaboration" sections. These elaborations, which provide a set of standards for the conduct of teachers, researchers, students and administrators, reflect the national and international best practices of good academic teaching and research. Under particular circumstances, deviation may be justified.

   The applicability of the provisions depends on the concrete circumstances under which the academic practitioner operates. Moreover, the circumstances under which the university operates are also subject to change. Nonetheless, every academic practitioner must be able to explain and motivate if – and if so, to what extent and why – they are at variance with the elaborations of the Code of Conduct (the rule of 'apply or explain').

6. The Code contains this preamble, the principles and their associated elaborations, violations of academic integrity, and the universities' prevention policy. It sets out six principles of proper academic practice:
   Honesty and scrupulousness
   Verifiability
   Impartiality

[3] Under the Code, a staff member is defined as a person who is or was employed by the university or who works or has worked under the university's responsibility pursuant to the Collective Labour Agreement of the Dutch Universities (*Collectieve Arbeidsovereenkomst Nederlandse Universiteiten*, CAO-NU).
[4] For the purposes of this Code, a university is understood to include the research organisations and other organisations that have declared to uphold this Code.

Independency
Responsibility

7. All universities and their academic staff will make the necessary efforts to familiarise themselves with the content of this Code. In addition, they will ensure that the Code is discussed within the academic community in order to enhance awareness of what good academic teaching and research entails.

8. Academic practitioners must comply with the Code of Conduct and have a duty to promote the best practices amongst their peers. University administrative bodies are under an obligation to promote and enforce compliance with the Code. Universities have public and binding regulations governing the independent resolution of complaints regarding violations of academic integrity.

9. The authors of this Code of Conduct are well aware that the Code does not address all problems. There are conceivable 'grey areas' and dilemmas in science and scholarship to which this Code is not directly applicable. Researchers are urged to put such cases forward for discussion within the academic community.

10. As the focus of the Code is on describing the conduct expected of academic practitioners, it does not contain complaints procedures. Such procedures are described in institutions' own academic integrity complaints regulations. The institutional complaints regulations and the *Landelijk Model Klachtenregeling Wetenschappelijke Integriteit* all include an appendix clarifying to which violations of academic integrity the complaints regulations in any case apply. It should be emphasised that a deviation from one of the rules in this Code of Conduct does not necessarily constitute a violation of academic integrity.

11. The Netherlands Code of Conduct for Academic Practice was adopted by the General Board of the Association of Universities (*Algemeen Bestuur van de Vereniging van Universiteiten*) on 17 December 2004, and came into force as from 1 January 2005. The Code was revised on 25 May 2012, and again on 31 October 2014 in consultation with the Royal Netherlands Academy of Arts and Sciences (KNAW).

Principles and elaborations

1. Honesty and scrupulousness

Principle
Academic practitioners are honest and forthright about their research and its applications. Scientific and scholarly activities are performed scrupulously and should remain unaffected by the pressure to achieve.

Definition
Researchers are called upon to be open and nuanced about margins of uncertainty and other limits on the interpretation and applicability of their own research and that of their fellow practitioners. Communication regarding research results should be dispassionate and realistic. The actions of an academic practitioner are scrupulous when they are performed with the dedication and precision that a proper exercise of the profession requires.

Elaboration

1.1. Academic practitioners know that the ultimate aim of science is to establish facts and they therefore must present the nature and scope of their results with the greatest possible precision. Accordingly, they do not prevaricate about their findings or about attendant uncertainties. Scrupulousness also entails the presentation of doubts and contraindications.

1.2. Every academic practitioner demonstrates respect for the people and animals involved in scientific teaching and research. Research on human subjects is exclusively permitted if the persons concerned have freely given informed consent, the risks are minimal and their privacy is sufficiently safeguarded. Research involving animals is only permitted if the statutory permits have been granted and in conformity with the relevant legislation.

1.3. Accurate source references provide a clear indication of the intellectual provenance of cited and paraphrased text. This also applies to information gathered from the Internet and from anonymous sources. The texts and research results of others are never reproduced without a reference.

1.4. Authorship is acknowledged. Rules common to the academic discipline are observed.

1.5. Academic practitioners do not republish their own previously published work or parts thereof as though it constituted a new contribution to the academic literature. When republishing previously published findings, they indicate this with a correct reference to the source or by another means accepted within the discipline. In many disciplines it is permissible and even customary to reprint short texts from works published with or without co-authors without a source reference when it concerns brief passages of introductory, theoretical or methodological explanation.

1.6. Scrupulousness is expressed through precision and nuance in academic instruction and research, in publishing research results and in other forms of knowledge transfer.

1.7. Scrupulousness is not restricted to academic research or to reporting on research activities, but also applies to relationships among scientific practitioners, between supervisors and PhD students, between teaching staff and students and with society.

1.8. Good mentorship is essential: students, PhD students and junior staff members occupy hierarchically subordinate positions. The responsibilities of persons involved in teaching and research at the institution are clearly defined and observed at all times.

1.9. Academic practitioners avoid personal relationships that may give rise to reasonable doubts concerning the objectivity of their decisions, or that may result in any form of coercion or exploitation of a hierarchically subordinate person.

1.10. Academic practitioners ensure that they maintain the level of expertise required to exercise their duties. They do not accept duties for which they lack the necessary expertise. If necessary, they actively indicate the limits of their competence.

1.11. Academic practitioners are co-responsible for the quality of the curricula they teach and for the scientific or scholarly and societal value of the research programmes in which they participate. They act according to their own preferences only insofar as these are reconcilable with this responsibility.

2. Reliability

Principle

Every academic practitioner supports and strengthens the fundamental reliability of science and scholarship through their own conduct. Academic practitioners conduct and report on their research and transfer their knowledge through teaching and publishing in a reliable manner.

Definition

Academic practitioners act reliably when they perform their research in a conscientious manner and provide a full account of the research conducted. This ensures that scientific and scholarly research can be traced, verified and re-tested. Reliability applies both to the conduct of academic practitioners and to their written work. Research publications should make mention of the statistical uncertainty of research results and the margins of error.

Elaboration

2.1. Research data have indeed been collected. The statistical methods used are in accordance with the methodological standards for the type of data used. The selective omission of research results is reported and justified.

2.2. Speculation spurred by results of academic research is recognisably presented as such in reports. Conclusions on the basis of the presented results are not speculative in nature.

2.3. Peer and other reviewers do not misuse an author's ideas as formulated in the article under review.

2.4. Academic practitioners provide a complete and honest overview of their skills whenever a decision concerning their career or duties is pending.

2.5. When transferring information to students, the selective representation of available knowledge is either avoided or justified. A clear distinction is made between transferred academic knowledge and personal opinion or related speculation.

3. Verifiability

Principle
Presented information is verifiable. Whenever research results are published, it is made clear what the data and conclusions are based on, from where they originate and how they can be verified.

Definition
Conduct is verifiable when it is possible for others to assess whether it complies with relevant standards (for instance of quality or reliability).

Elaboration

3.1. Research must be replicable in order to verify its accuracy. The choice of research question, the research set-up, the choice of method and the references to sources used are accurately documented in a form that allows for verification of all steps in the research process.

3.2. The quality of data collection, data input, data storage and data processing is closely guarded. All steps taken must be properly reported and their execution must be properly monitored (lab journals, progress reports, documentation of arrangements and decisions, etc.).

3.3. Raw research data are stored for at least ten years. These data are made available to other academic practitioners upon request, unless legal provisions dictate otherwise.

3.4. Raw research data are archived in such a way that they can be consulted at all times and with a minimum expense of time and effort.

3.5. The source of all educational material, written as well as oral, is stated.

4. Impartiality

Principle
In their scientific or scholarly activities, academic practitioners are led by no other interest than academic interest, and they are always prepared to account for their actions.

Definition
Academic practitioners are impartial and objective when they do not let personal interest, preference, affections, prejudice or the interests of the commissioning or funding body affect their judgement and decisions.

Elaboration

4.1. Academic practitioners allow others to take an independent intellectual position on topics. This applies particularly in the case of hierarchical relationships such as the relationship between a teacher and a student or a supervisor and a PhD candidate.

4.2. The choice of methods and criteria is made solely to establish facts, and is not led by external goals such as commercial success or political influence.

4.3. A reviewer carefully reflects whether they can offer an impartial assessment of a manuscript, for instance when it concerns a competing research group.

4.4. In assessing the performance of others (peer review of research and manuscripts), academic practitioners are led by scientific or scholarly arguments, and they refrain from assessing a manuscript if there could be any doubt about the impartiality of their opinion.

4.5. Academic practitioners only take up and defend a certain scientific or scholarly viewpoint when there are sufficient grounds to support that viewpoint. Competing viewpoints must be mentioned and explained.

4.6. Academic practitioners avoid exclusively using their own textbooks for courses, in any case at undergraduate level.

4.7. Every academic practitioner affiliated with a university provides an up-to-date and complete list of their relevant ancillary activities on the university website.

4.8. In its annual report or on its website, every university explains its procedures for reporting the ancillary activities of staff.

5. Independence

Principle
Academic practitioners operate in a context of academic freedom and independence. Where restriction of that freedom cannot be avoided, this is clearly stated.

Definition
When presenting insights as correct and relevant, academic practitioners are independent when they only allow themselves to be influenced by others' judgements to the degree that such judgements are based on scientific or scholarly authority. They do not allow themselves to be influenced on other grounds.

Elaboration

5.1. Whenever third parties engage an academic practitioner to teach or conduct research, the practitioner is allowed to perform the assignment – within the parameters defined – without interference by the commissioning party. The research question is of a scientific or scholarly interest and should go beyond the commissioner's particular concern. The method employed is scientifically valid. The commissioning party has no influence on the research results.

5.2. Assignments carried out with third-party funding demonstrably contribute to academic teaching and/or research.

5.3. The relationship between the commissioning party and the performing party is always made explicit, for instance where there is a consultancy assignment or other connection. Any possible appearance of a conflict of interest is always avoided, or mentioned in publications.

5.4. The option to publish academic research results is assured. Arrangements with external research funders always stipulate that the academic practitioner is at liberty to publish the results within a specified, reasonable period.

5.5. External funders of scientific and scholarly activities are identified by name. In the case of research activities, this can mean their names are stated in publications or in conference papers presenting the results of sponsored research; in the case of teaching activities this can mean they are referred to in the course announcement and teaching material.

6. Responsibility

Principle
Academic practitioners acknowledge their responsibility for the societal implications of their work. They are willing to discuss and explain their choice of research themes.

Definition
Academic practitioners are cognisant of the fact that they receive funds and facilities to conduct academic research and that they are free to make their own research choices, which they explain to the best of their ability.

Elaboration

6.1. Researchers are willing and able to justify their choice of research themes both in advance and in retrospect. Researchers provide a clear and full account of how research funds were used and which choices this involved.

6.2. Academic practitioners allow themselves to be judged on the quality of their output in an honest and loyal fashion, and they cooperate in internal and external assessments of their research.

Wageningen University Master Thesis Agreement

This Wageningen University (WU) master thesis agreement serves to lay down agreements between a master student and a chair group. The agreement registers rights and duties of both parties and is a further supplementation and elaboration of the Higher Education and Research Act (WHW), Education and Examining Regulations and the Student Charter.

The form has to be completed for each master thesis by the student and a representative of the chair group before the start of the study activities.

Student and representative sign three copies of the form. Both receive a copy. A third one is sent to a representative of the program: the study advisor mentioned below.

When the agreement is modified the student will receive a copy of the adjusted form.

For complaints on the supervision or assessment the student can appeal to:
- The study advisor for advice and support
- The Examining Board for advice on procedures or an official complaint.
- The Examination Appeals Board.
- A dean or a Confidential advisor for students

For additional information see the **Explanation** on page 4.

1. Information on student and chair group

Student: .....
Study program: .....
Registration number: .....
Study advisor: .....

Chair group: .....
Course code: .....
Supervisor(s): .....
Examiner a[5]: .....
Examiner b[6]: .....

The student is informed upon the (written) guidelines and rules of the chair group for thesis students: yes/no

2. Prerequisite course(s)

Course code:	.....	Passed:	yes/no
Course code:	.....	Passed:	yes/no

3. Admission to the thesis

Study advisor ..... has stated that the student has met all requirements for starting with this master thesis and that the specified thesis is part of the program of the student.

[5] This can be the supervisor.
[6] This name can be entered later.

4. Title and planning

Title of the thesis project: .....

Date of completion parts of thesis: .....

Date of start: .....

Date of finish: .....

Special arrangements for planning: .....

5. Arrangements on supervision including mid-term evaluation

(Arrangements on the type and intensity of meetings of student and supervisor on role and responsibilities when more supervisors or more chair groups are involved)

6. Arrangements on facilities

(Work place (office/lab), access to buildings and locations. Availability and use of equipment, materials and facilities)

7. Arrangements on report

(Language and lay out, time and format of transfer of results and data, agreements on secrecy of results and publicity of the thesis report)

8. Arrangements for individual situations.

(Circumstances beyond one's control, disability, absence for special reasons, additional double degree arrangements)

9. Assessment

The MSc Thesis assessment form[7] for theses of WU has to be used.

The percentages in the assessment form that will be used are:

Learning outcomes (assessment criteria)	**percentage**
A. Research competence	
B. Thesis report	
C. Colloquium	
D. Examination	

The assessment will be done in week (on) ----------

10. Signature

The student agrees to report any relevant change in circumstances which may affect the results of the project to the supervisor.
The student declares to be acquainted with rules and procedures of the chair group and with the assessment form. The chair group declares to have provided the student with all relevant information (including rules, regulations, safety issues).

Wageningen,

	Name	Date	Signature
Student:	----------	----------	----------
Supervisor(s):	----------	----------	----------
Examiner a:	----------	----------	----------
Examiner b:	----------	----------	----------

[7] Click “Yes” > “edit” > “OK” and save to your own location.

Explanation[8]

1. Information student and chair group
The study advisor has to be asked for advice on the progress of the student and qualification for a master thesis. The study program (study advisor) has to be informed about the arrangements students want to make for thesis projects in order to establish whether the program allows the student to take this thesis and to keep record of the student's progress.
The examiner will be the chair holder being responsible for the thesis. The supervisor takes care of daily supervision. A supervisor from an external organization cannot have a formal role, and cannot be involved in the marking because he is not a qualified lecturer. If more supervisors and chair groups are involved each role should be explained under item 5. WUR employees outside the university section (e.g. researchers) can be regarded as supervisor like a WU lecturer.

2. Prerequisites
Chairs can require a maximum of two prerequisite courses (in total 12 credits) for starting a thesis. These prerequisites have to be published in the study handbook. The student has to pass the exam(s) to gain access to the thesis.

3. Admission to the thesis
The chair group (supervisor, coordinator education) should contact the study advisor personally to be informed about the student being qualified for starting with the master thesis.

4. Description and planning
In general reference can be made to a previously described project proposal of the chair group with subject and type of activities. It is considered very important that the student writes a detailed project description and is aware of all consequences with respect to type of activities, intensity and planning of work. If the student intends to interrupt the project for exams or leave the supervisor should agree in advance.

5. Arrangements on supervision
A supervisor will have his own rules for planning meetings with students, for involvement of co-workers. Especially when more supervisors and chair groups are involved it should be avoided that the student is confronted with conflicting rules and opinions. Only one supervisor should be the focal point for the student. It is strongly recommended to include a (mid-term) moment of evaluation to discuss progress and adjust the agreement if needed.

6. Arrangements on facilities
The chair group takes care of the facilities the student needs. In general it should be assumed that the student is not familiar with the policy concerning priorities for use of equipment and facilities, and is not aware who is in charge of them. It should be explained to the student that arrangements can never be a guarantee for availability and that because of unpredictable circumstances the thesis project may have to be adapted with respect to time planning and/or content. Chair group and student have to find solutions together.

7. Arrangements on report
Specific rules on the lay-out of a report, the transfer of data sets and processed results have to be agreed.
The thesis project can be part of a larger project in which external partners are involved, or in which results may be generated that require confidentially. The university has rules on protection and embargo of scientific results. Thesis reports can be registered with a restriction on disclosure of contents. The examiners and supervisor(s), however, always need a full copy to assess the student.
From October 2009 all master theses have to be uploaded to the Wageningen UR Digital Library through the AIR (Administration Enrolment data and Results). It is up to the involved chair group and student to decide whether the thesis will be made public or not in the Digital Library.

8. Arrangement for individual situations

[8] This Master Thesis Agreement form is established by the Board of the Education Institute in September 2009 and was updated in December 2012: it is a revision of the Thesis Contract used at WU since January 1996. Please note Department of Social Sciences has a MSc Protocol with Specific Rules and Regulations and the other three Departments a MSc Thesis Guide (final draft as per December 2013).

Students can ask for specific facilities e.g. to work with a disability. Student and chair group can ask study advisor or dean for students for advice. Additional arrangements for Double Degree students can be included here if needed.

9. Assessment procedure

Examining Boards and Board of the Education Institute have decided[9] in 2006 that all chair groups of WU have to use the standard assessment form for theses and two examiners. The chair group can adjust the weight (percentages) of the assessment criteria on the excel-form. The student should be informed on this (item 9 of this agreement).
The completed assessment form for the thesis has to be uploaded to the AIR.

[9] https://portal2.wur.nl/sites/owi/kwaliteitszorg/Policy Documents and Forms/thesis-letter-061102.pdf

Appendix III MSc Thesis Assessment Form

Assessment Form MSc Thesis Wageningen University

Complete the green fields boxed with a single line. Use a point as decimal sign; the default language is English (UK)

Name chair group		
Name student		
Registration number		
Study programme		
Specialisation		
Code thesis		
Short title thesis		
Country (of fieldwork)		
Date examination		**Signature**
Supervisor chair group		
Supervisor outside chair group (if any)		
Second reviewer/examiner		

	Grading Mark 1-10	Relative weight *	Check
Research competence (30-60%) *		30%	
1 Commitment and perseverance			
2 Initiative and creativity			
3 Independence		0.00	Fail
4 Efficiency in working with data			
5 Handling supervisor's comments and development of research skills			
6 Keeping to the time schedule			
Thesis report (30-60%) *		60%	
1 Relevance research, clearness goals, delineation research			
2 Theoretical underpinning, use of literature			
3 Use of methods and data		0.00	Fail
4 Critical reflection on the research performed (discussion)			
5 Clarity of conclusions and recommendations			
6 Writing skills			
Colloquium (5-10%) *		5%	
1 Graphical presentation			
2 Verbal presentation and defence		0.00	Fail
Oral Defence (5-10%) *		5%	
1 Defence of the thesis			
2 Knowledge of study domain		0.00	Fail

**** please choose weights such that their sum is 100.***

TOTAL	0.00	
FINAL GRADE	**FAIL! (partially completed)**	**Fail**

Extensive comments by supervisor and 2nd reviewer/examiner on next page
NOTE: this form, including the signatures, needs to be archived for 7 years for visitation purposes

Comment by supervisor

Comment by 2nd reviewer/examiner

Appendix IV a **Rubric for the Assessment of MSc Thesis**

Rubric for assessment of MSc-thesis

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

Version: 1.1 (December 15, 2010)

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
1. Research competence (30-60%) *						
1.1. Commitment and perseverance	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.
1.2. Initiative and creativity	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.
1.3. Independence	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.
1.4. Efficiency in working with data Note: depending on the characteristics of the thesis work, not all three aspects	**Experimental work** Student is not able to setup and/or execute an experiment.	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.

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						Execution of the experiment is flawless.
	Data analysis 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 analyse 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.
	Model development 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.
1.5. Handling supervisor's comments and development of research skills	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.
1.6. Keeping to the time schedule	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%) *						
2.1. Relevance research, clearness goals, delineation research	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.
2.2. Theoretical underpinning, use of literature	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.
2.3. Use of methods and data	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.
2.4. Critical reflection on the research performed (discussion)	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.
	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	Minor and major conflicts and correspondences with literature are shown. The added value of the research	Results are critically confronted with existing literature. In case of conflicts, the relative weight

Item	Mark for item					
	2-3	4-5	6	7	8	9-10
				study is described, but it is not related to existing research.	relative to existing literature is identified.	of own results and existing literature is assessed. The contribution of his work to the development of scientific concepts is identified.
2.5. Clarity of conclusions and recommendations	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.
2.6. Writing skills	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.	*Textual* 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%) *						
3.1. Graphical presentation	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.
3.2. Verbal presentation and defence	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%) *						
4.1. Defence of the thesis	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.
4.2. Knowledge of study domain	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.

Appendix IV b **Manual for use of the thesis assessment form and the MSc-thesis assessment rubric (Social Sciences version) of Wageningen University (December 2017)**

- 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

- 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.
- Each single cluster should have an assessment of 'sufficient' (i.e. ≥ 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.
- 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

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 December 23, 2013).

URL2: http://en.wikipedia.org/wiki/Rubric_(academic) (last visited December 23, 2013).

Appendix V **Format for the MSc Thesis Cover Page**

Wageningen University - Social Sciences

MSc Thesis Chair Group …

Title

Subtitle

Month + year:

MSc program	**Name of student**
(if applicable) Specialisation	**Name of Supervisor(s)**
Thesis code:	