Standardized assessment form

Assessment of	Sub-criteria: *Comments*	S/E[i]	Max score[ii]	Pre-assessment	Final score	Comments
Introduction and theory **(20 points)**	Technical grounding:	E	5			
	Theoretical insight:	E	5			
	Description of goals:	E	5			
	Own contribution:	S	5			
Methods and working practice **(25 points)**	Skills level:	E+S	5			
	Working methods:	S	5			
	Efforts:	S	5			
	Degree of independence:	S	10			
Results and discussion **(35 points)**	Project result:	E+S	10			
	Analysis and discussion:	E	10			
	Critical reflection	E	5			
	Own contribution / goal attainment	E	10			
Presentation **(15 points)**	Structure:	E	5			
	Language:	E	5			
	Form:	E	5			
Oral presentation[iii] **(5 points)**	Presentation during final examination:	E	5			
		SUM	**100**			

Using the assessment form

Total scores:
Each criterion has been allocated a maximum number of points so that the maximum total score is 100. Each faculty/department/academic environment may adjust the allocation of points between the various sub-criteria within each criterion.

Note that since there are only 16 sub-criteria, and a total of at least 40 points is required to gain a pass, one (1) point will rarely indicate an acceptable level of attainment (pass). The general rule is that the lower limit for acceptable achievement is 40% of the maximum score for that (sub)criterion. In other words, if a sub-criterion, such as "Technical grounding", has a maximum score of five (5) points, the following scale will apply:
5 points – near perfect
4 points – very good, only minimal improvement possible
3 points – good, but clear improvement possible
2 points – just acceptable for Master's degree standard
1 point – some value, but insufficient for Master's degree standard
0 points – negligible value

Assessment:
The examiner and supervisor carry out a pre-assessment and assign provisional scores according to the different criteria (marked E and S). After the oral examination and the assessment meeting, all scores may be adjusted apart from "Presentation" and "Oral presentation". Criteria are marked E (examiner) or S (supervisor) according to who has overall responsibility for the assignment of points. Two criteria are marked E+S meaning that the examiner and supervisor have joint responsibility for the assignment of points.

At UiT the Arctic University of Norway, footnote 1 of the assessment form defines precisely how the supervisor shall be involved in these criteria.

Grade table:

Grade	**Point interval**
A	90 - 100
B	80 - 89
C	60 - 79
D	50 - 59
E	40 - 49
F	0 - 39

[i] E=Examiner(s) and S=Supervisor. Sub-criteria marked with E/E+S shall be jointly assessed by the examination committee and supervisor in the meeting between the examination committee and supervisor *before* the examination committee has its assessment meeting.

[ii] A maximum number of points have been proposed for each of the sub-criteria so that collectively these are equivalent to the number of points for the criterion. This may be adjusted by the examination committee for each individual thesis. In cases where 10 has been proposed as the maximum score, it is envisaged that the scale of points from 1-5 shall be doubled.

[iii] In this context, oral means an oral presentation of the thesis, not an oral examination. In the event that an oral presentation shall not be held, the points from this sub-criterion shall be allocated between the other criteria so that the total possible score is still 100. In such cases, the points shall be allocated as follows: 1 point to introduction and theory; 1 point to methods and working practice; 2 points to results and discussion; and 1 point to presentation. An oral examination (if any) shall be held after the oral presentation of the thesis and after the total score has been calculated. The final score may be adjusted after the oral examination.

UNIVERSITETS- OG HØGSKOLERÅDET
The Norwegian Association of Higher Education Institutions

Descriptions of grades for master's theses in mathematics, natural sciences and technology

The grading of master's theses in mathematics, natural sciences and technology is governed by the following descriptions of grades for students admitted to master's studies in the autumn semester 2012 or later.

Each description covers these areas: general comments; theoretical overview, insight and choice of methods; manner of completion – level, technical skills; extent, research and development; presentation.

Grade / level	Description
A Excellent	• An outstanding thesis which clearly demonstrates a talent for research and/or originality, in a national perspective. • The candidate has very good insight into the scientific theory and methods in his/her field and has demonstrated scientific knowledge at a very high level. The objectives of the thesis are well defined and easy to understand. • The candidate is able to select and apply relevant scientific methods convincingly, has all the technical skills required for the work, can plan and conduct very advanced experiments or computations without help, and works very independently. • The thesis is considered very extensive and/or innovative. The analysis and discussion have an extremely good scientific foundation and justification, and are clearly linked to the topic that is addressed. The candidate demonstrates extremely good critical reflection and distinguishes clearly between his/her contributions and the contributions from others. • The form, structure and language in the thesis are at an extremely high level.
B Very good	• A very good thesis that is clearly and positively distinguishable. • The candidate has very good scientific knowledge and insight into the scientific theory and methods in his/her field. The objectives of the thesis are well defined and easy to understand. • The candidate is able to select and apply relevant scientific methods soundly, has almost all the technical skills required for the work, can plan and conduct advanced experiments or computations without help, and works very independently. • The thesis is considered extensive and/or innovative. The analysis and discussion have a very good scientific foundation and justification, and are clearly linked to the topic that is addressed. The candidate demonstrates very good critical reflection and distinguishes clearly between his/her contributions and the contributions from others. • The form, structure and language in the thesis are at a very high level.
C Good	• A good thesis. • The candidate has good scientific knowledge and insight into the scientific theory and methods in his/her field. The objectives of the thesis are generally well defined, but may contain some inexact formulations. • The candidate uses the relevant scientific methods satisfactorily, has most of the technical skills required for the work, can plan and conduct quite advanced experiments or computations without help, and works independently. • The thesis is considered good with elements that are creative. The analysis and discussion have a good scientific foundation and justification, and are linked to the topic that is addressed. The candidate demonstrates good critical reflection and usually distinguishes clearly between his/her contributions and the contributions from others. • The form, structure and language in the thesis are at a good level.

D Satisfactory	• A satisfactory thesis. • The candidate has quite good scientific knowledge and insight into the scientific theory and methods in his/her field. The objectives of the thesis are defined, but may contain some inexact formulations. • The candidate is generally able to apply relevant scientific methods, has the main technical skills required for the work, and can plan and conduct experiments or computations without help. The candidate works independently to some extent, but needs quite close supervision to achieve satisfactory scientific progress. The candidate may have problems utilizing the research group's expertise in his/her own work. • The thesis is considered satisfactory. The analysis and discussion have a satisfactory scientific foundation and justification, and are linked to the topic that is addressed, but there is room for improvement. The candidate demonstrates his/her ability for critical reflection, but has problems distinguishing clearly between his/her contributions and the contributions from others. • The form, structure and language in the thesis are at an acceptable level.
E Sufficient	• A thesis that is acceptable and satisfies the minimum criteria. • The candidate has sufficient scientific knowledge and insight into the scientific theory and methods in his/her field. The objectives of the thesis are described, but are vague and imprecise. • The candidate is able to apply some relevant scientific methods, has a minimum of technical skills required for the work, and can plan and conduct simple experiments or computations without help. The candidate achieves limited scientific progress without close supervision, and has problems utilizing the research group's expertise in his/her own work. • The thesis is considered limited and somewhat fragmented. The analysis and discussion have an adequate scientific foundation and justification, but ought to have had a better link to the topic that is discussed. The candidate demonstrates sufficient critical reflection, but may have problems distinguishing between his/her contributions and the contributions from others. • The thesis is mostly acceptable, but has definite shortcomings with respect to form, structure and language.
F Fail	• A thesis that does not satisfy the minimum requirements. • The candidate does not have sufficient scientific knowledge and insight into the scientific theory and methods in his/her field. The objectives of the thesis are not clearly defined or are lacking. • The candidate demonstrates a lack of competence in the use of scientific methods, does not have the required technical skills and independence for the work, and has scarcely utilized the research group's expertise in his/her own work. • The thesis is considered very limited and fragmented. The analysis and discussion do not have an adequate scientific foundation and justification, and are loosely linked to the topic that is discussed. The candidate does not demonstrate sufficient critical reflection, and does not clearly distinguish between his/her contributions and the contributions from others. • The thesis has major shortcomings with respect to form, structure, and language.

UiT
NORGES
ARKTISKE
UNIVERSITET

PROCEDURE/GUIDELINES FOR GRADING OF MASTER'S THESES IN MATHEMATICS, NATURAL SCIENCES AND TECHNOLOGY • Faculty of Biosciences, Fisheries and Economics • Faculty of Health Sciences • Faculty of Science and Technology	
Approved by: Academic Affairs Committee at the Faculty of Science and Technology. The section dealing with diploma insertion and note was updated in November 2014. The Academic Affairs Committee was informed in a meeting the 2nd of December 2014.	Date: February 27, 2014

Objective: Stipulate guidelines for grading of Master's theses in mathematics, natural sciences and technology in accordance with the Regulations for examinations at UiT – the Arctic University of Norway. The guidelines shall be common for the Faculty of Biosciences, Fisheries and Economics (BFE-fak), Faculty of Health Sciences (Helsefak) and Faculty of Science and Technology (NT-fak). The guidelines shall ensure equal treatment in the grading at the three faculties and serve as an aid for the supervisors and examiners.

More information about the background for establishing the new guidelines for grading of Master's theses is available on the following website: http://uit.no/om/enhet/artikkel?p_dimension_id=88200&p_document_id=324334

Scope: These guidelines apply to all Master's theses in mathematics, natural sciences and technology at BFE-fak, Helsefak and NT-fak. The guidelines are applicable for students who started in the autumn semester in 2012 on a two-year Master's degree programme or the fourth year of a five-year Master's degree programme.

Responsibility: The faculties are responsible for ensuring that all the affected parties (students, supervisors, examiners and administrative staff) are made aware of the guidelines for grading of Master's theses so that equal treatment is ensured in the grading. Owing to different practices concerning the administration of examinations at the faculties, the routines will vary to some extent. It is up to each faculty to clarify the internal distribution of responsibility.

Description:

Dealing with delayed students

These guidelines are applicable for students who started in the autumn semester in 2012 on a two-year Master's degree programme or the fourth year of a five-year Master's degree programme, regardless of whether they started on a Master's thesis immediately or in a later semester.
The new guidelines for grading **do not** apply to students who started **before** the autumn semester in 2012 and who are delayed in relation to the submission deadline. These students shall be assessed in accordance with the old arrangements.

It is important that the faculties send out the correct information to the examination committees and supervisors regarding which guidelines apply for the student in question.

Information to examiners

The faculties are responsible for sending out information pertaining to the new guidelines for grading of Master's theses. The faculties have different administrative practices concerning information in connection with grading of Master's theses. It is up to the faculty to decide who should send out information to the examination committee/academic supervisors, but the following information should be common for all:

- ✓ Procedure/guidelines for grading of Master's theses in mathematics, natural sciences and technology
- ✓ Generic description of grades
- ✓ Examiner's assessment
- ✓ Assessment form

The role of the supervisor in connection with the form and grading (in accordance with Section 40 of the Regulations for examinations)

The role of the supervisor in connection with grading of Master's theses is defined in Section 40 of the Regulations for examinations at UiT – the Arctic University of Norway.

§ 40. Sensur på avsluttende mastergradseksamener
Kandidatens veileder skal ikke være sensor men fakultetsstyret kan i spesielle tilfeller gjøre unntak fra denne bestemmelsen. Eksamenskommisjonen kan konferere med veileder før sensurmøte. Veileder skal ikke delta i sensurmøtet, og heller ikke være med på å fastsette karakteren. Ved behov kan eksamenskommisjonen be veileder om en skriftlig redegjørelse for veiledningsprosessen.

Section 40. Assessment of final Master's examination
The candidate's academic supervisor shall not be an examiner, but the Faculty Board may in special circumstances make an exception to this rule. The examination commission may confer with the academic supervisor prior to the assessment meeting. The academic supervisor shall not participate in the assessment meeting and not participate in determining the grade. If

deemed necessary, the examination commission may request that the academic supervision submit a written explanation of the academic supervision process.

The new assessment form defines which parts of the Master's thesis shall be assessed by the supervisor and/or examiner.

To avoid a conflict with the Regulation for examinations, the supervisor shall not be involved in determining the grade. This means that the role of the supervisor is limited to giving the examiners information/feedback on the categories marked with S+E (supervisor and examiner) and S (supervisor) on the assessment form.

The examiner(s) shall have a meeting with the supervisor prior to the meeting to discuss the grading so that the examiner(s) are in a position to give a score in all categories.

This shall be agreed in advance between the examiner(s) and supervisor.

The assessment form shall be a work document for the examination committee and will not be suitable as an explanation or feedback to the students. Further, it shall not function as an examination protocol. A separate examination protocol shall be sent to the examination committees.

The standardized assessment form is used for all types of Master's degree examinations and any adaptations in relation to a Master's degree examination without an oral component are specified in a footnote on the form.

Diploma insertion and note

All candidates assessed based on the new guidelines shall receive a diploma with an addition (insertion) with generic description of grades as well as a note referring to the insertion and when the new system was adopted.
The faculties have agreed on a common note for the diploma and diploma supplement:

Bokmål	*Kandidatens mastergradsoppgave er vurdert i henhold til generiske karakterbeskrivelser for matematisk-naturvitenskapelige og teknologiske fag, implementert våren 2014. Se innstikk.*
Nynorsk	*Kandidaten si mastergradsoppgåve er vurdert i samsvar med generiske karakterbeskrivingar for matematisk-naturvitskaplege og teknologiske fag, implementert våren 2014. Sjå innstikk.*
Engelsk	*The candidate's Master's thesis has been assessed in accordance with the generic description of grades for Master's theses in mathematics, natural sciences and technology*

	implemented in the spring semester in 2014. See insertion.

Enforcement of nominal length of study

The faculties shall investigate guidelines for enforcement of the nominal length of study, and consider whether it is necessary to establish a procedure with common guidelines to ensure all students are treated equally and to prevent subjective differential treatment of students at the various faculties.

Regulations, course descriptions and programme descriptions

Each of the faculties shall make provisions for updating their own regulations (e.g. supplementary regulations), course descriptions and programme descriptions, so that they include precise information about grading of Master's theses in mathematics, natural sciences and technology.

References and appendix: Regulations for examinations at UiT – the Arctic University of Norway (Norwegian/English).

Assessor's assessment of master's theses - Attachment to *Descriptions of grades for master's theses in mathematics, natural sciences and technology*

For each criterion, the Assessor is to assess the candidate's attainment of the following:

Technical grounding:
Is the theoretical and technical foundation clearly described, enabling the work to be placed in the context of relevant international research?

Theoretical insight:
Does the work, in particular the introduction, demonstrate that the candidate has advanced knowledge of relevant theory and methods, and particular in-depth insight into a specific field that is applicable to the thesis?

Goal description:
Are the goals and/or hypotheses for the thesis presented in a clear and comprehensible manner?

Skill level:
Does the candidate master relevant methods and use these in the thesis in an applicable and integrated manner?

Project result:
Does the work demonstrate creativity and/or contribute to new thinking/creativity? Does the work appear to be particularly extensive or comprehensive? How do you rate the quality and value of the new knowledge/results generated by this work?

Critical reflection:
Does the candidate demonstrate a reasonable understanding of the value of the results? Does the candidate approach sources of information in a critical manner? Does the candidate consider and evaluate factors of uncertainty such as methodological errors, data errors, etc.? Does the candidate analyse relevant ethical questions related to technical, professional and research matters? Does the candidate make and justify reasonable suggestions for further developments or discuss the potential for such?

Structure:
Does the work demonstrate an organized structure (normally IMRaD: Introduction, Methods, Results and Discussion)? Is the work generally clear?

Language:
Is the candidate able to present issues and results with the necessary technical precision? Is the work easily comprehended and does it demonstrate a good command of the language used?

Form:
Is the style used for references, figures and tables consistent? Is the quality of figures and tables acceptable? Does the candidate have a good command of relevant specialist terminology?

Supervisor's assessment of master's theses- Attachment to *Descriptions of grades for master's theses in mathematics, natural sciences and technology*

For each criterion, the Supervisor is to assess the candidate's attainment of the following:

Own contribution
Has the candidate generated important elements/issues relevant to the thesis? Does the candidate use relevant resources (databases, etc.) to acquire current and applicable literature and background material for the work?

Skill level:
Does the candidate master relevant methods and use these in the thesis in an applicable and integrated manner?

Working methods:
Does the candidate demonstrate the ability to work in a planned and methodical manner?

Effort:
Does the candidate demonstrate a high degree of effort and motivation?

Degree of independence:
Is the candidate able to work and use relevant methods in an independent manner, and conduct an independent piece of research or development under supervision? Does the candidate show personal initiative? What type of help and supervision has the candidate received during the different phases of the work? Is the candidate able to draw on the expertise of the research group and apply this to his/her own work?

Project result:
Does the work demonstrate creativity and/or contribute to new thinking/creativity? Does the work appear to be particularly extensive or comprehensive?

Deadlines:
A pre-requisite for assessment is that the work is submitted within the defined deadline.