Guidelines for the assessment of Master of Logic theses

1. General assessment guidelines.

(1) The research thesis presented by the student serves as a demonstration of thorough knowledge of the selected topics and of a solid grasp of the pertinent research methods. It should prove that the candidate possesses high-level independent learning, written communication and information retrieval skills.

(2) When the official version of the thesis is submitted, the chair of the thesis committee checks the Turnitin plagiarism report in DataNose. In case plagiarism is suspected, the thesis committee chair always consults with the chair of the Examinations Board. Pertinent measures are then taken, in line with the EB's rules on plagiarism and fraud.

(3) Two weeks after the official version of the thesis was submitted to the committee (at least seven days before the thesis defense), each committee member has to send a *pre-assessment* to the committee chair. This assessment should contain:

(a) An indication of the possible grade interval (typically two or three grades); see § 3 for discussion of how each possible grade is to be interpreted.

(b) Four or five brief statements on the criteria listed in § 2 (one or two sentences each):
  (i) General statement about the thesis (What is the main contribution? What are its strong and weak points?)
  (ii) Brief statement about CORRECTNESS. This can be skipped if the committee members did not find any issues with CORRECTNESS.
  (iii) Assessment of WRITING.
  (iv) Assessment of DIFFICULTY.
  (v) Assessment of RESEARCH CONTRIBUTION.

(c) The supervisor(s) should add a paragraph (vi) on the criterion INDEPENDENCE.

(4) In case at least one committee member has doubts about the acceptability of the thesis, the committee chair will open a discussion about whether the thesis defense has to be cancelled. After hearing from all committee members, the thesis committee chair will cancel the defense if there is a possibility that the thesis will not be accepted by the committee. The student shall receive the grade NAV. The student shall get detailed feedback from the committee to revise the thesis in order to pass in a second attempt.

(5) As soon as all pre-assessments have been received by the committee chair, she or he will make all pre-assessments available to the entire committee. The grade ranges of the pre-assessments will indicate likely grades for the theses that should be considered later.

(6) The committee chair will send a draft evaluation text (based on the pre-assessments) to all committee members before the defense.

(7) In the committee discussion after the defense, the committee chair decides on the grade based on the arguments of the committee members.

(8) After that, the committee will create the consensus assessment text. The text discusses the assessment criteria and reflects the committee discussion and decision, as well as the final grade. The text can, but does not have to contain a sentence about the presentation and the questions asked during the defense. The text does not mention any grades.

(9) The committee chair announces the grade and reads the assessment text to the student in private.

(10) The student and the committee return to the audience and the committee chair announces that the degree was granted: no grades or indication of grades are given in public, including in the personal words of the supervisor.

(11) After the defense, the committee chair enters the evaluation text and the grade in DataNose.

2. Description of Criteria

Correctness. Errors in a thesis can be mathematical or technical errors, historical mis-attributions, improper use of experimental or other empirical techniques, faulty arguments, improper bibliographical work, or, in general, any lack of skill that will be expected of a researcher in the field of the thesis.

Writing. The criterion of writing covers both the technical writing style of the field of the thesis as well as the communication to a wider academic audience, highlighting the achievements of the thesis for a non-specialist readership. The length of a thesis should be related to its scientific content: a thesis that is too long for its content is an indicator for substandard writing.

Difficulty. The criterion of difficulty encompasses aspects such as the mathematical subtlety of the topic, the problems encountered during the work on the thesis, the amount of reading that was required, and in general scholarly and scientific skills that were required for writing the thesis, depending on the area the thesis is written in. The usual time period for writing a Master's thesis is four to six months; having considerably more time than that affects the difficulty of the project and needs to be taken into account when assessing the thesis.

Research contribution. An original contribution to research is not a requirement for M.Sc. theses, but is one of the main criteria for excellence. Contributions are results that go beyond the published literature, possibly even including results that are strong enough to be published in a good journal or a proceedings volume of a selective conference of the field.

Independence. A student can show independence by developing their own research topic, or by taking a topic given by the supervisor and developing it in a novel direction, or by working on a given problem and coming up with new ideas independently. Independence is not a requirement for M.Sc. theses; in fact, in the spirit of scientific collaboration, we strongly encourage close cooperation between supervisors and students in their research projects.

3. The grading system.

3.1. **General framework.** For acceptable M.Sc. theses, we give one of eight grades: **6**, **6½**, **7**, **7½**, **8**, **8½**, **9**, **9½**, **10**. Of these, the grades **6½**, **7**, and **7½** are considered *standard* grades and the other five grades are considered *non-standard*; we refer to the grade **8** as the *threshold of distinction*.

3.2. **The standard grades.** The grade of **7** is the grade for an average Master's thesis that achieves what is expected of an average research Master's student at the level of competence expected of a Master's student. The grades of **7½** and **6½** are for theses that are clearly above or below that average performance, but neither excellent nor seriously problematic (cf. § 3.3). The phrase "expected of an average research Master's student" does not refer to the average student in the M.Sc. Logic: as the M.Sc. Logic only admits students who have shown academic excellence in their undergraduate studies, its student population is not representative of the "average research Master's student".

3.3. **The non-standard grades.** In the following, we give verbal descriptions of the various non-standard grades. As a rule, we do not use "publishability" as a necessary or sufficient criterion for above-standard grades since the publication cultures in different fields vary so much.

6. The grade of six is reserved for theses with major problems, typically factual errors in proofs or arguments. The grade of six is very rare in the M.Sc. Logic.

8. The grade of eight is the *threshold of distinction*. A thesis cannot be graded with an eight if there is major criticism of any aspect of the thesis or if there are sustained objections by the independent experts to giving an above-standard grade. In order to be graded with an eight, only minor and easily fixable errors may be contained in the thesis, the research content of the thesis needs to be a contribution of the candidate to the field, and it should be rated as above the expectations for a Master's thesis in the criteria Writing, Difficulty, and Research

CONTRIBUTION. In particular, the candidate must exhibit a firm command of writing for the expert reader and of writing for the wider academic readership, the committee must judge the work done for the thesis as difficult, and there should be an element of academic INDEPENDENCE.

$8\frac{1}{2}$. Theses that meet the requirement for a grade of eight can be considered for even higher grades if the thesis goes considerably beyond what is expected for an eight in terms of the research results (DIFFICULTY and RESEARCH CONTRIBUTION). In order to be given an eight-and-a-half, the results of a thesis should be a significant contribution to the field. The grade of eight-and-a-half can only be given if there is hardly any criticism from any committee member, and the remaining criticism must be minor. The grade of eight-and-a-half requires essential consensus of the committee members.

9. The grade of nine typically marks the best theses in a given academic year. The research results for a nine need to be a major contribution to the field (something that could conceivably be cited ten years later) and there should not be any remaining criticism in the committee. The grade of nine requires consensus of the committee members.

$9\frac{1}{2}$. The grade of nine-and-a-half is occasionally given for a thesis that meets the requirements for a nine, but is considerably stronger than other nines in direct comparison. A typical example of a thesis that might receive this exalted grade is one that consists of several chapters each of which would have been a thesis graded with a nine, if submitted independently as a M.Sc. thesis.

10. The grade of ten is very rarely given for a thesis that excels in terms of RESEARCH CONTRIBUTION and DIFFICULTY. The thesis should present ground-breaking results. This can mean, for instance, that it solves an important and extremely complex open problem in a certain field, or that it lays the groundwork for a completely novel line of research. There should be a high level of INDEPENDENCE and the WRITING should be impeccable. This grade requires consensus among all committee members.