

Assessment Matrix for Master's Theses – Department of Mathematics and Statistics

The criteria are always considered when applicable. The criteria for Very Good (4) and Satisfactory (2) are determined by interpolation.

	Sufficient (1)	Good (3)	Excellent (5)
Assessment item			
Level of complexity of the topic - The scientific standard of the topic - Sources of reference	The topic is rather straightforward and the level of the scientific content is modest. The required prior knowledge for this topic is provided by a single subject study level course. Analysis of the topic is based on 1 or 2 main sources that are easy to take on, e.g. textbooks.	The topic is challenging. The scientific content demands a good knowledge of some advanced level course. The analysis of the topic requires a mastery of multiple sources and the details in these sources also require completion.	The topic is very challenging. The scientific content is based on theories discussed in several advanced study courses and also requires an understanding of new theories. The main sources of the thesis are quality publications or data that has to be completed substantially.
Precision of argumentation - Logical deduction, argumentation and presentation of mathematical results - definitions of concepts and their correct use - the standard presentation of the scientific field	The thesis contains errors in subject matter or inaccuracies. Author is not able to correct these errors pointed out by the supervisor and the correction requires notable effort from the supervisor. Notations, definitions and presentations of results are somewhat wobbly. Only few arguments and reasonings are originally made by the author.	The thesis is mostly flawless and none of its versions contained significant or fundamental errors. The author has independently fixed errors pointed out by the supervisor and understands the main arguments and ideas. Notations, definitions and presentations of results follow the common practices of the discipline. The author demonstrates an ability to complete the arguments and reasonings from the source material.	The thesis is practically flawless. The author takes care of the precision of argumentation independently and understands the used arguments completely. The concepts and results from the literature are used correctly and coherently. The author shows the ability to produce new results independently and explains the challenging arguments of the source material correctly.
Method selection and usage (not compulsory) - data collection and quality - analyzing data and presentation, method selection - programming	The data is insufficient, unreliable, or inapplicable with respect to the research questions. The chosen method is wrong or implemented incorrectly. The programming is flawed or achieved only with significant help from the supervisor.	The data is collected following the practices of the scientific field, and it can be applied to answer the research questions of the topic. The standard method applicable to the research problem is used correctly. The author has programmed the software used in the analysis.	The data is of exceptional quality or the data collection has been exceptionally demanding. The thesis applies a chosen, demanding method correctly or develops further some existing method. The author has programmed the software used in the analysis and the software has wide applications.
Analyzing results (not compulsory) - analyzing and presenting the results - discussions, interpretations - conclusions	The discussion, interpretation or critical evaluation of results is insufficient. The conclusions are missing or they are weakly argued. The significance of the results is over- or underestimated.	The results are analyzed and presented in a systematical way, and they are connected to previous studies. The conclusions and interpretations are well argued.	The results are presented systematically and their reliability is analyzed critically and credibly. The results are linked tightly to previous studies and they are examined thoroughly. There is a lot of well argued discussion.
Thesis structure - coherence, clarity - cohesion, connectivity, fluency - emphasis on the essential	The structure of the thesis is illogical and incoherent to that extend that it is difficult to understand and follow the presentation. Essential parts of the scientific content are not noted. The text contains many illogicalities, e.g. the causal relations are left unclear.	The structure of the thesis is good and whole. The topics are presented clearly and they are in logical order. The student has noted relevant issues and points them out in the text. The text is fluent and easy to follow.	Different parts of the thesis are seamlessly connected and they form a solid and consistent entity. The topics are presented in a very clear, fluent and easily understandable manner. The main points are identified and emphasized with expertise. The whole text is very precise.
Referencing	The literature used as a source is limited and one-sided, or contains a large number of modest sources,	The author demonstrates a good understanding of the literature and has had a role in the selection process	The author uses the essential literature of the field in a comprehensive way following the practices of the

• Examination of literature • the scope, relevance and diversity of references • citations as a part of the text	such as websites or lecture notes. The student has not been involved in the selection of the source material. References to source materials are inconsistent or does not follow the common practices of the discipline. There are defects regarding the information in the bibliography.	of the sources for the thesis. The sources are closely related to the topic of the thesis and are well chosen. There are only a few unreliable sources, for which a more scientific reference would be available. The referencing is mostly logical and follow the common practices of the discipline.	discipline like an expert. References are generally made to high quality publications and the citation is natural, precise and technically correct. The student has self-selected some of the key references for the thesis.
Appearance & finishing touches • typesetting and layout • equations, pictures, images • linguistic flawlessness	Finishing of the work is careless. Mathematical formulae have typos or their inaccuracies has been neglected. Tables and figures are not informative or neat and their layout is confusing. No attention has been paid to the tidiness of the layout. The text contains a large number of grammatical errors and typos.	The layout and visual appearance of the work is neat. The mathematical formulae, tables and figures are mostly correct and clear, and correspond to the standard presentation of the discipline. Overall, the work appears to be representative of the scientific field. The grammar is mostly impeccable and there is only few typos.	The layout of the follows the scientific standards of publications in the field. The mathematical formulae, tables and figures are clear, informative and well-organized. Notation is unambiguous and emphasis is used appropriately. The layout is polished and the language and grammar is flawless.
Independence • participation in the topic selection and outlining • independent problem solving • initiation, self-sufficiency	The choice of topic and its outlining are done by the supervisor. The supervisor is mainly responsible for the progress of the thesis. The thesis would not have been completed or would not have met the minimum requirements without substantial effort from the supervisor.	The author was involved in the selection and outlining of the topic and took responsibility for the progress of the work. The student was able to work and solve problems independently, and needed help mainly at the level of details.	The author had a significant role in the selection of topic and was responsible for outlining. Author worked independently, proactively and made effective use of the guidance provided. The student was able to do demanding problem solving independently.
Staying on the agreed schedule	The thesis was significantly delayed without acceptable reasons or any notification on the delay.	The thesis was slightly delayed without common agreement or notifying the supervisor. The delay had an acceptable reason.	The thesis was finished as planned.