Study programme: Applied Mathematics (MB)

Level: Master

ECTS: 30

Prerequisites: Minimum of 90 ECTS acquired and all the compulsory courses in the study programme passed.

Goals of Graduation Thesis:

To demonstrate the ability of research and professional work in the field of applied mathematics by nontrivial application of advanced mathematical knowledge to the relevant real world problems.

Expected outcomes:

Minimal: Successful students are expected to demonstrate a) minimal application of principles and theoretical foundations acquired during studies, b) minimal progress in knowledge, and c) minimal knowledge of the research situation in the field of the graduation thesis.

Desirable: Successful students are expected to demonstrate a) appropriate application of principles and theoretical foundations acquired during studies, b) significant improvement in knowledge and c) in-depth knowledge of the research situation in the field of graduation thesis.

General contents:

Individual work of the candidate on the topic he/she chose from the list of available topics. Graduation thesis describes the final project on which a student works during a predefined timeframe. Attention should be paid to the following:

a) Graduation thesis should deal with a problem that is relevant in non-academic world;

b) Graduation thesis should contain the description of the development of the project, obtained results, and description of the applied methods;

c) Graduation thesis has to obey the scientific writing style. The literature has to contain refereed texts (papers and books) and must not contain only references from the Internet which are not reviewed;

d) Graduation thesis, apart from the main results connected with the topic, should also contain the overview of the basic results from the narrow field to which a graduation thesis belong. In this way a student demonstrates knowledge of the research situation in the field;

e) Input from industry is desirable.

Methods:

a) Time frame for the completion of the project is defined in advance, but can be extended under some circumstances and followed by appropriate elaboration (by the defined procedure).

b) With the approval of the advisor, the candidate can fill in the application form for the topic of the thesis and submit it to the Board of the Department of Mathematics and Informatics.

c) The progress on the project has to be officially conducted by the mentor. The mentor gives a critical note of the process, considers reasons for a potential delay, and provides advice.

d) The advisor is available to the candidate for all other discussions and advice.

e) The mentor is obliged to read the final project and the written thesis at least once and, based on this, to provide the candidate with opinion about it.

f) The candidate is fully responsible for the final project and the graduation thesis.

g) No later than the expiration of deadline, candidate hands in the project and the written thesis to the responsible authorities of the Faculty / University. After that, the final project and the thesis are distributed to the members of the Evaluation Board. The Evaluation Board write the report on the thesis.

h) The report and the thesis are placed on the web site at least 15 days before the public defence. After that, a candidate schedules the defence date of the graduation thesis.

i) Student presents the basic results of his/her research and answers the questions of the committee in public.
Grade
Approved or not approved.