Master ‘s program Informatics

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http://www.in.tum.de
Contact Persons

• Infopoint - first contact center

• Academic Affairs Office
  – Maria Probst: surname O-Z
  – Anja Douglas: surname A-N

• Secretary of the Examination Board
  – N. N.

• Academic Counseling
  – Dr. Angelika Reiser
  – Vivija Simić

• Consecutive Recognition
  – complete application at Infopoint

• International Affairs
  – Christine Müller (international degree students)
  – Martina von Imhoff (study abroad)
Master ‘s program Informatics

• Goals of the program:
  – qualifying for entry into professional practice or research
  – provide comprehensive view of the discipline’s interrelated issues
  – learn to work independently according to academic principles

• Content of the program:
  – Examinations: 90 Credits (ECTS)
  – Master ‘s Thesis: 30 Credits
  – Possibly additional bridging courses: max. 30 Credits

• Duration:
  – Regular time of Studies: 4 Semester
  – At the latest in 7th Semester

• Academic title:
  – Master of Science or Master of Science (TUM)
Curriculum Master Informatics

4 Credits
Master-Seminar

10 Credits
Advanced Practical Course

52 Credits
Elective courses in Informatics

18 Credits
Area of Specialization

8 Credits
2nd area

8 Credits
3rd area

Orientation
8 Credits
From all areas
10 Credits
Free choice

16 Credits
Interdisciplinary Project

30 Credits
Master’s Thesis

Will be done in 6 months

16 Credits

8 Credits

Soft Skills (Support Electives)

8 Credits

One of these areas has to be “Formal Methods and Applications” or “Algorithms and Scientific Computing”

Free choice

From all areas

Orientation

10 Credits

Soft Skills (Support Electives)

Area of Specialization

8 Credits

2nd area

3rd area

Orientation

10 Credits

Soft Skills (Support Electives)
Curriculum Master Informatics

- **Master-Seminar**: 4 Credits
- **Advanced Practical Course**: 10 Credits

**Elective courses in Informatics**
- **Area of Specialization**: 18 Credits
  - 8 Credits: 2nd area
  - 8 Credits: 3rd area

**Orientation:** practice
- 8 Credits: From all areas
- 10 Credits: 2nd Advanced Practical Course

**Other Courses**
- **Interdisciplinary Project**: 16 Credits
- **Master’s Thesis**: 30 Credits
  Will be done in 6 months

**Soft Skills (Support Electives)**: 8 Credits

One of these areas has to be „Formal Methods and Applications“ or „Algorithms and Scientific Computing“.

From all areas

Attention: The 2nd Advanced Practical Course is mandatory.

Support Electives

Master’s Thesis

Will be done in 6 months
**Curriculum Master Informatics**

- **4 Credits**
  - Master-Seminar

- **10 Credits**
  - Advanced Practical Course

- **18 Credits**
  - Area of Specialization

- **8 Credits**
  - 2nd area

- **8 Credits**
  - 3rd area

- **52 Credits**
  - Elective courses in Informatics
  - One of these areas has to be "Formal Methods and Applications" or "Algorithms and Scientific Computing"

- **8 Credits**
  - From all areas

- **10 Credits**
  - Continuing Advanced Practical Course

- **16 Credits**
  - Interdisciplinary Project

- **30 Credits**
  - Master’s Thesis

**Orientation: advanced practice**

**Soft Skills** (Support Electives)

Will be done in 6 months
Curriculum Master Informatics

4 Credits
Master-Seminar

10 Credits
Advanced Practical Course

52 Credits
Elective courses in Informatics

18 Credits
Area of Specialization

8 Credits
2nd area

8 Credits
3rd area

One of these areas has to be „Formal Methods and Applications“ or „Algorithms and Scientific Computing“

8 Credits
Orientation: basics

10 Credits
Free choice from all areas

8 Credits
2nd area

8 Credits
3rd area

Soft Skills (Support Electives)

16 Credits
Interdisciplinary Project

30 Credits
Master’s Thesis

Will be done in 6 months
Curriculum Master Informatics

- **4 Credits**
  - Master-Seminar

- **10 Credits**
  - Advanced Practical Course

- **52 Credits**
  - Elective courses in Informatics
  - 18 Credits
    - Area of Specialization
  - One of these areas has to be “Formal Methods and Applications” or “Algorithms and Scientific Computing”

- **16 Credits**
  - Interdisciplinary Project

- **30 Credits**
  - Master’s Thesis

- **30 Credits**
  - Will be done in 6 months

- **8 Credits**
  - From all areas

- **10 Credits**
  - Guided research

Orientation: research

- Soft Skills (Support Electives)
Guided Research

Goals:
• Scientific literature research
• Development of an own (narrowly confined) result by means of scientific methods
• Structuring and writing of own scientific texts in English
• Presentation of the results in a short talk

Content:
• Student and advisor establish the topic and specify incrementally the task
• Self-depended (guided) scientific literature research
• Scientific elaboration of an own (narrowly confined) result with main focus on intensive literature research and writing scientific texts
• Student receives feedback on the results, suggestions for improvement opportunities and for further proceeding
• Creation of a short scientific report based on the experiences in English
• If meaningful and possible: submission of a article at a conference
• If meaningful and possible: participation at a conference
Curriculum Master Informatics

**4 Credits**  
Master-Seminar

**10 Credits**  
Advanced Practical Course

**52 Credits**  
Elective courses in Informatics

- **18 Credits**  
  Area of Specialization

- **8 Credits**  
  2nd area

- **8 Credits**  
  3rd area

**Orientation:** international

- **8 Credits**  
  Study abroad

- **10 Credits**  
  Soft Skills (Support Electives)

**16 Credits**  
Interdisciplinary Project

**30 Credits**  
Master ‘s Thesis

Will be done in 6 months

One of these areas has to be „Formal Methods and Applications“ or „Algorithms and Scientific Computing“.
Curriculum Master Informatics

4 Credits  Master-Seminar

10 Credits Advanced Practical Course

52 Credits

18 Credits Area of Specialization

16 Credits  Interdisciplinary Project

30 Credits Master’s Thesis

One of these areas has to be „Formal Methods and Applications“ or „Algorithms and Scientific Computing“

8 Credits  2nd area

8 Credits  3rd area

8 Credits  From all areas

10 Credits Free choice

8 Credits Soft Skills (Support Electives)

Will be done in 6 months
Interdisciplinary Project (IDP)

• Goal: Bridging the gap between Informatics and its application
• Standard application areas
  – Mathematics
  – Electrical engineering
  – Medicine
  – Mechanical Engineering
  – Economics
• On special request the IDP can also be taken in another area
• 16 Credits
• Examination results include:
  – Grades from lectures
  – Practical work
  – Documentation and Presentation
• How-To for an IDP
# Study Plan - Structure of the four Terms

<table>
<thead>
<tr>
<th>Sem</th>
<th>Informatics Methodology and Knowledge</th>
<th>Informatics Practice</th>
<th>Informatics Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Elective Courses (22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Elective Courses (12)</td>
<td>APC(10)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Elective Courses (8) Master’s Seminar (4)</td>
<td>or 2\textsuperscript{nd} or continuing APC(10)</td>
<td>or Guided Research (10)</td>
</tr>
<tr>
<td>4</td>
<td>Master’s Thesis (30)</td>
<td></td>
<td></td>
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</tbody>
</table>

- Additionally in the 1st to 3rd semester: Support Electives (8) and IDP(16)
- Students are not bound to follow this plan, it is a recommendation
  - lectures can be heard according to the individual needs …
Continuous Assessment Procedure

• Module examinations will be taken concurrently with the program
• Types: written, oral, project, ...
• Mandatory registration of examinations
  – always in TUMonline (https://campus.tum.de)
  – MyTUM-login necessary
  – information on registration of examinations see
    http://www.in.tum.de/en/current-students/administrative-matters/exams.html

• Withdrawal
  – withdrawal due to illness (or other conclusive reasons)
  – early withdrawal without indication of reasons possible
  – information on withdrawal see http://www.in.tum.de/en/current-students/administrative-matters/exams.html
Repitition of Examiniations (§ 44 FPSO together with § 23 und § 24 APSO)

- Failed examinations of required modules have to be repeated at the next offered examination date
  - for required modules each semester a repeat examination is offered
  - in most cases until first week of lecture period of the following semester
- Repitition for the purpose of improving grades is not possible
- The number of repeat examinations is only restricted by the examination deadlines of § 10 APSO

Don‘t forget to register!
Examination Time Limits (APSO § 10)

- 2nd semester: no examination passed → ir
- 3rd semester: less than 30 credits → ir
- 4th semester: less than 60 credits → ir
- 5th semester: less than 90 credits → ir
- 6th semester: examinations not yet taken → np
- 7th semester: examinations not yet taken → ir

ir: irreversibly failed np: not passed

Please note: ECTS of bridging courses are NOT included!!!
Fundamentals Examinations - Bridging courses

- Fundamentals Examinations are listed in the letter of admission.
- They have to be taken in the first academic year.
- If a student fails to register for those Fundamentals Examinations early enough to be able to take them during the first academic year, they shall be deemed as taken for the first time and not passed.
- Failed Fundamentals Examinations may be repeated only once and at the next examination date.
- Pursuant to § 46 (3) FPSO admission to the Master’s Thesis is only possible after passing Fundamentals Examinations.
- Bridging courses are not part of the Master’s examination.
- Examination results are not being taken into consideration for the overall grade.
Certificate of the Final Examination

- lists grade and topic of the final thesis and the overall grade
- overall grade
  - calculated as the weighted grade average of the modules and the Master’s thesis
  - the grade weights of the individual modules correspond to the credits assigned to each module
- date on final certificate
  - day when all examination requirements have been fulfilled
  - number of semesters is not printed
- in addition the student will receive a Transcript of Records that lists all passed modules with credits and grades
Questions?
Successful Studies!