Information Event for students in the first semester of the Bachelor in Management and Technology (TUM-BWL)

TUM School of Management
Christine Geiger
January 15th, 2019
TUM English Courses for School of Management students

Summer Semester 2019

Writing for Business Students
(a “Gateway to Master’s” course)
Tuesdays 9.45-11.15 or 13.15-14.45

Management and Shakespeare
Tuesdays 15-14.30
Writing for Business Students
Tuesdays 9.45-11.15 or 13.15-14.45, Richard-Wagner-Str. 3
- Will Blockchain revolutionize logistics? Is Facebook’s business model at odds with European privacy law? Is there still a case for active fund management? Improve your English grammar and style by writing about subjects of interest to you

- Learn the conventions of both academic and business-world writing

- Meet the language requirement for English master’s programs at the TUM
Are great leaders born or made? Should reason or passion dictate a company's strategy? To whom are managers answerable?

Learn to recognize and analyze key questions in management studies through four Shakespeare plays.

Class presentations and discussions help you understand language and concepts you are sure to encounter in the contemporary business world.

Management and Shakespeare
Tuesdays 15-16.30, Richard-Wagner-Str. 3
- Are great leaders born or made? Should reason or passion dictate a company’s strategy? To whom are managers answerable? Learn to recognize and analyze key questions in management studies through 16th and 17th century masterpieces that remain strikingly relevant today.

- Detailed class presentations and lively discussions help you understand language and concepts you are sure to encounter in the contemporary English-speaking business world.
Questions?

- Writing for Business Students is taught by Rose Jacobs, Karl Hughes, and Jennifer Dozier-Ritter (in Straubing). Please contact Rose (jacobs@zv.tum.de) with any questions.

- Management and Shakespeare is taught by Ruth Shannon and Rose Jacobs. Please contact Ruth (shannon@zv.tum.de) with any questions.

German as a Foreign Language
TUM Sprachenzentrum offers two courses exclusively for international students of TUM School of Management during lecture free period

German for your studies:
German for engineers (B2)

Registration in TUMonline (3 weeks before course start)
Mo, Wed and Thu 11.3.-28.3.2019
from 9.45 am to 12.15 pm
Room 1237, Arcisstraße, main campus
Exam on April 1

German for Internships and for the Job:
Intensive Course German as a Foreign Language (B2+C1)

Registration in TUMonline (3 weeks bevor course start)
2.4./3.4./4.4./8.4./10.4./11.4.
from 9.15 am to 12.15 pm
Room Z532, Luisenstraße, main campus
Exam on April, 12
Agenda

- General information (courses, exams, etc.)
- Most important legal regulations
- Credit Transfer, International Experience & Communications Skills
- Further information & guidance
- Specialization in technology
Agenda

General information (courses, exams, etc.)

- Most important legal regulations
- Credit Transfer, International Experience & Communications Skills
- Further information & guidance
- Specialization in Technology
You can find important information here:

- Course Schedules
- FAQs
- General Academic and Examination Regulations
- Program-Specific Academic and Examination Regulations
- Information sheets

https://www.wi.tum.de/programs/bachelor-in-mt/
Bachelor in Management & Technology: Your options

• 100% English (English Track)
  • Courses in English
  • Computer Engineering
  • Labeled „100% in English“

• Bilingual (German Track)
  • Mixed Track
  • German language skills needed
### Courses in the second semester

<table>
<thead>
<tr>
<th>„German“ Track = Mixed Track</th>
<th>English Track</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basics in Business</strong></td>
<td><strong>Cost Accounting</strong></td>
</tr>
<tr>
<td>Production and Logistics</td>
<td></td>
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<tr>
<td>Kostenrechnung</td>
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<tr>
<td><strong>Basics in Economics</strong></td>
<td><strong>Economics II</strong></td>
</tr>
<tr>
<td>Volkswirtschaftslehre II</td>
<td></td>
</tr>
<tr>
<td><strong>Basics in Mathematics / Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td><strong>Specialization in Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Bilingual</td>
<td><strong>Computer Engineering</strong></td>
</tr>
<tr>
<td>Chemistry/Mechanical Engineering/Informatics/Electrical and Information Technology/Renewable Ressources</td>
<td></td>
</tr>
</tbody>
</table>

*In consecutive courses, it is recommended to continue with the language from the previous course, e.g. Economics I + II.*
To avoid an overlap of lectures and exams it’s recommended to choose the courses as in the course schedules distinct by the two tracks.

If you mix up modules of both tracks, we cannot guarantee that the course schedules won’t overlap!
You can decide whether you want to take a course in German (if available) or in English.

However, in consecutive courses it is recommended to continue with the language from the previous course, e.g. Economics I + II or Law I + II.
If you want to make sure that 100% of the courses will be taught in **English**, you should opt for **Computer Engineering.**

Other specializations in technology are mainly taught in **German.**
Agenda

1. General information (courses, exams, etc.)
2. Most important legal regulations
3. Credit Transfer, International Experience & Communications Skills
4. Further information & guidance
5. Specialization in Technology
Most **important regulations:**

- General Academic and Examination Regulations (**APSO**) – TUM wide general procedural regulations
- Program-Specific Academic and Examination Regulations (**FPSO**) – TUM-BWL specific regulations
- Enrollment, Re-enrollment, Leave of Absence and Withdrawal Regulations – TUM wide procedural regulations

• Only the **German versions are legally binding!**

• **Important terms:**

  - “Änderungssatzung” (Amendment) – not the complete regulations, legally binding
  - “Lesbare Fassung” (Consolidated version) – Regulations + Amendment, not legally binding
  - Legal expression – know the difference (only German version is legally binding)

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>„soll“</td>
<td>is expected to, should</td>
<td>not mandatory</td>
</tr>
<tr>
<td>„kann“</td>
<td>can</td>
<td>not mandatory</td>
</tr>
<tr>
<td>„muss“</td>
<td>must</td>
<td>mandatory</td>
</tr>
<tr>
<td>„ist“</td>
<td>is</td>
<td>mandatory</td>
</tr>
</tbody>
</table>
General Academic and Examination Regulations

Verbindlich ist allein die amtlich veröffentlichte Version

ALLGEMEINE PRÜFUNGS- UND STUDIENORDNUNG
für Bachelor- und Masterstudiengänge
an der Technischen Universität München

Vom 18. März 2011

Lesbare Fassung
in der Fassung der 3. Änderungssatzung vom 27. April 2018

Aufgrund von Art. 13 Abs. 1 Satz 2 in Verbindung mit Art. 58 Abs. 1 Satz 1 und Art. 61 Abs. 2
Satz 1 des Bayerischen Hochschulgesetzes (BayHSchG) erlässt die Technische Universität Mün-
chen folgende Satzung:

Vorbemerkung zum Sprachgebrauch:

1. Nach Art. 3 Abs. 2 des Grundgesetzes sind Frauen und Männer gleichberechtigt. Alle
   Personen- und Funktionsbezeichnungen in dieser Satzung gelten daher für Frauen und
   Männer in gleicher Weise.
2. Der in dieser Satzung verwendete Begriff „Aushang“ (Synonyme: schwarzes Brett, ...) macht
   keine Aussage über das einzusetzende Medium. Medien für Aushänge können sowohl Papier
   als auch Ausgabegeräte von DV-Systemen sein. Rechtsverbindliche Mitteilungen sind über
   Medien zu machen, die allen Adressaten ohne Schwierigkeit zugänglich sind.
3. Der in dieser Satzung verwendete Begriff „Formular“ (Synonyme: Formblatt, ...) macht keine
   Aussage über das einzusetzende Medium. Medien für Formulare können sowohl Papier als
   auch Betrachtmassen von DV-Systemen sein.
4. Die Bezeichnung „Prüfungsamt“ bezieht sich auf die örtlich zuständige Abteilung des
   Prüfungsamtes der TU München.
5. Einzelne, in dieser Satzung verwendete Begriffe werden auch ausführlich im Glossar
   „Verwendung einheitlicher Begriffe und Bezeichnungen für Bachelor- und
   Masterstudiengänge“ definiert und können im Internet im Dienstleistungskompass der TUM
   unter „http://portal.mytum.de/archiv/kompendium_rechtsangelegenheiten/bologna-
   prozess/folder_listing“ nachgelesen werden.

https://www.wi.tum.de/programs/bachelor-in-mt/downloads/
1. Examinations

- A module is usually concluded with a **module exam**.

- In addition to the exam, **further assessments (papers, mid-term etc.)** may be required during a course.

- A module is passed when you have successfully passed the **module exam**.

- Required modules and compulsory elective modules **have to be** passed. (Exception: Elective modules)

- Additional subjects **do not count** towards your degree and the Study Progress Monitoring.

- Please bring your **student card and your identity card to all exams**.

- Students on **leave of absence cannot** participate in examinations taken **for the first time**.

- Chairs usually offer **post-exam reviews**.
General Academic and Examination Regulations

1. Examinations

- In case of illness provide a medical certificate or a certificate issued by an official medical examiner or public health officer ("Amtsarzt"), a list of TUM Partner Physicians can be found here: https://www.tum.de/nc/en/studies/during-your-studies/examinations/withdrawing-from-examinations-medical-certificates/). The certificate must specify the timeframe — beginning and end date — of the illness-related withdrawal and state the reasons for withdrawal.

- If you feel sick **during the exam**, please notify the examiner immediately!

- Please contact for more information/submit the medical certificate to:

  - Ms. Sandra Lütkemeyer
  - 089 / 289 - 25086
  - Room 1564
  - npv_bachelor@wi.tum.de

  - Ms. Dagmar Töpper
  - 089 / 289 - 25073
  - Room 1564
  - npv_bachelor@wi.tum.de
2. Resitting an exam

- If a module examination in a required or required elective module is failed, the module examination must be repeated. The retake exam should be taken within 6 months.
- For every module examination at least one opportunity to resit the exam will be given.

**Attention:** You have to register for the retake exam. The previous registration for the exam is not valid.

- The retake exam will take place either before the beginning or at the end of the lecture period of the following semester.
- An improvement of the grade by resitting the exam is not permitted.
- There is no limitation of retake exams. However, the student’s progress must be adhered.

**Exception:** Bachelor’s Thesis and any attempt of deceit (incl. plagiarism): only one retake exam will be granted.

- In serious cases or repeated attempts of deceit the student can immediately be excluded from taking further examinations in his/her study program and thus will lead to deregistration!!!
3. Student’s Progress

• In order to complete the degree program within the **regular study period**, students must earn **30 Credits per semester**.

• It is **not recommended** to take **less than 22 Credits** per semester.

• Student’s progress will be **monitored** once a semester (Study Progress Monitoring).

• Please get in touch with your Program Manager in charge if you **.**
3. **Student’s Progress**

   - Students **must have earned** at least the following total number of credits by the end of the semester in question:
     - 3rd semester, min. 30 Credits
     - 4th semester, min. 60 Credits
     - 5th semester, min. 90 Credits
     - 6th semester, min. 120 Credits
     - 7th semester, min. 150 Credits
     - 8th semester, min. 180 Credits

**Attention:** If students **do not earn the required number of credits** by the end of the semester in question, they will be considered to have failed the modules and will be **deregistered** from the degree program.
Program-Specific Academic and Examination Regulations (TUM-BWL Bachelor)

• By the **end** of the **second semester**, students must have passed at least **three of the four** following exams: Mathematics I, Management Science, Statistics I, Economics I.

<table>
<thead>
<tr>
<th>Winter term</th>
<th>Summer term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics I (regular and retake exam)</td>
<td>Statistics I (regular and retake exam)</td>
</tr>
<tr>
<td>Management Science (regular exam)</td>
<td>Management Science (retake exam)</td>
</tr>
<tr>
<td>Economics I (regular exam)</td>
<td>Economics I (retake exam)</td>
</tr>
</tbody>
</table>

• Recognition of credits earned at another university is only possible **during the first year of study**.

• **Please note**: If you have **more than 29 credits** transferred during the course of your degree, you will automatically be moved into the **next semester**.
Enrollment, Re-enrollment, Leave of Absence and Withdrawal Regulations

https://portal.mytum.de/kompass/rechts sicherheitswesen/immatrikulationssatzung/document_view?

Immatrikulations-, Rückmelde-, Beurlaubungs- und Exmatrikulationssatzung

Diese Auflistung umfasst die Amtlichen Bekanntmachungen und die Lesbaren Fassungen.

Lesbare Fassung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats) mit 4. Änderungssatzung vom 6. Dezember 2017
(Lesbare Fassung vom 10.03.2018)

Vierte Satzung zu Änderung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation
(Amtliche Bekanntmachung vom 06.12.2017)

Lesbare Fassung der Satzung der technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats) in der Fassung der 3. Änderungssatzung vom 30. Juni 2017
(Lesbare Fassung vom 03.07.2017)

Dritte Satzung zur Änderung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats)
(Amtliche Bekanntmachung vom 20.06.2017)

Lesbare Fassung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats) in der Fassung der 2. Änderungssatzung vom 26. August 2016
(Lesbare Fassung vom 30.06.2016)

Zweite Satzung zur Änderung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats)
(Amtliche Bekanntmachung vom 26.06.2016)

(Lesbare Fassung vom 11.02.2016)

Satzung zur Änderung der Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats)
(Amtliche Bekanntmachung vom 19.01.2016)

Satzung der Technischen Universität München über die Immatrikulation, Rückmeldung, Beurlaubung und Exmatrikulation (Immats)
(Amtliche Bekanntmachung vom 09.01.2014)
Enrollment, Re-enrollment, Leave of Absence and Withdrawal Regulations

• Students have to inform TUM about their change of address or change of name.

• You have to inform the Enrollment Office in case you lose your Student Card.

• If you have not paid your semester fees within the stipulated period, your enrollment will be terminated automatically.

• It is possible to apply for a leave of absence – more information can be found here: https://www.tum.de/nc/en/studies/during-your-studies/leave-of-absence/.
Other TUM / Faculty Internal Regulations

• Registration for exams **always via TUMonline!**
  (Please pay attention to special regulations)

• **Registration period** for exams at the TUM School of Management - WS 2018/19:
  
  November 19th, 2018 – January 15th, 2019

  **Please note**: registration period for courses of the Specializations in Technology may vary – please get informed in advance!

• Please always make sure that your registration was successful! (E-mail!)

• If an exam is **not passed**, you should **resit the exam** at the next possible opportunity. If you need to resit an exam, you have to **register for the retake exam** via TUMonline again.

• **A delayed registration is not possible!!!**
Attention: The Student Council organizes an information event about exam preparation.

When? January 16th, 2019, 4:45 pm
Where? Audimax
Instructions for downloading the exam certificate

To log in, please click on the start page of TUMonline (https://campus.tum.de) on the “Login” button in the upper right corner.

The login page will open. Enter your username and your password here.

Your business card will open. Click on the “Transcripts” button in the “Studies” menu.

A window will open with your exam certificates. Choose the right semester and the right study program and you can print out your exam certificate by clicking on the “printer” button.
Agenda

- General information (courses, exams, etc.)
- Most important legal regulations
- Credit Transfer, International Experience & Communications Skills
- Further information & guidance
- Specialization in Technology
Reminder: Credit Transfer

You have to apply for the recognition of previous examinations until the end of the 2nd semester and before registering for the corresponding exam.

FAQ: https://www.wi.tum.de/programs/bachelor-in-mt/faq/ („Recognition of existing qualifications“)

Download: https://www.wi.tum.de/programs/bachelor-in-mt/downloads/ („Credit Transfer“)
Module “International Experience & Communications Skills”

- International Experience & Communication Skills: 6 ECTS
  - International Experience: 3 ECTS
  - Communication Skills: 3 ECTS
Options for International Experience

Study Abroad
e.g. Exchange Program, Freemover
min. 60 consecutive calendar days

Internship Abroad
min. 60 consecutive calendar days

Other stays abroad
e.g. Au-Pair, Work-and-Travel etc.
no language courses (Communication Skills!)
min. 60 consecutive days
Options for International Experience

Attention: If you have gained any sort of international experience after receiving the higher education entrance qualification and not earlier than three years before the start of your studies, you can also apply for a recognition. Please submit all necessary documents and the recognition form to international-experience@wi.tum.de until the end of the second semester of your studies at the latest. For more information please refer to the information sheet on our website https://www.wi.tum.de/programs/bachelor-in-mt/downloads/.
Scholarship Options for Stays Abroad

TUM without Borders

PROMOS (DAAD)
Study and competition-related travel
Seminar papers and final theses

Scholarship of the Bavarian Ministry of Education and Arts

Study- and competition-related travel
Seminar papers and final theses

Study/work abroad grant (internships and Freemovers)

https://www.international.tum.de/en/scholarships/

ANGELIKA WEINDEL

Scholarships for stays abroad

Augustenstr. 46, Zi. 054
Phone: +49 89 289 25473
Mail: weindel@zv.tum.de

Consultation hours: Thursday 9:30 - 10:30
Working days:
Monday, Tuesday (afternoon), Wednesday, Thursday
Options for „Communication Skills“

- **Business Plan Seminar**
- **Soft Skills Seminar**
  e.g. Presentation Techniques Course, Conflict Management and Conduct of Negotiation Course
- **Language courses (at least 3 ECTS)**
  e.g. language courses offered by TUM Language Center, language courses abroad
- **Other courses/projects**
  e.g. Intercultural Communication (offered by TUM SOM), Project Work in the Students' Union Executive Committee (AStA)
Further information & guidance: Communications Skills & International Experience

Communication Skills

- Ms. Sandra Lütkemeyer
- 089 / 289 - 25086
- Room 1564
- npv_bachelor@wi.tum.de

Communication Skills

- Ms. Dagmar Töpper
- 089 / 289 - 25073
- Room 1564
- npv_bachelor@wi.tum.de

International Experience

- TUM Chair of Forest Economics
- international-experience@wi.tum.de

TUM Chair of Forest Economics
Further information & guidance: Specialization in Technology

Ms. Beate Pommer
089 / 289 25084
Room 1560
beate.pommer@wi.tum.de

Ms. Linda Karger
089 / 289 – 28221
Room 3574
studentexperience@tum-som.com
Summary: Most Important Information

1. Study Progress Monitoring!

2. Please check your exam certificate every semester in TUMonline!

3. Credit Transfer until the end of the 2nd semester!

4. Register to all exams!
Agenda

- General information (courses, exams, etc.)
- Most important legal regulations
- Credit Transfer, International Experience & Communications Skills
- Further information & guidance
- Specialization in Technology
Specialization in Technology

Attention: Before the beginning of the summer semester a trip to Straubing is planned. Further information will follow – if you are interested, please sign in our list.
Specialization in Technology

Renewable Resources
Simon Wendl

Program Coordinator Straubing:
Melanie Neumeier
studieren.straубing@tum.de

Student Council Straubing:
fachschaft@cs.tum.de
Specialization in Technology

Chemistry
Collin Ratzka
collin.ratzka@tum-som.com
Specialization in Technology

Mechanical Engineering
Hanna Scholta
hanna.scholta@tum-som.com
Specialization in Technology

Informatics
Maximiliane Mittermair
maximiliane.mittermair@tum-som.com
Attention: At the beginning of the summer semester an Informatics Pre-Course will be probably held. Further information will follow – please check regularly the event calendar on our website: www.wi.tum.de or contact the Student Council.
Attention: In September an Learning object-oriented programming course (LOOP) will be probably held. Further information will follow – please check regularly the event calender on our website: www.wi.tum.de.
Specialization in Technology

Electrical and Information Technology
Nicolas Gail
nicolas.gail@tum-som.com
Specialization in Technology

Computer Engineering
Asli Akyol
asli.akyol@tum-som.com
Do you have general questions concerning the Technical Specializations or your studies?

Talk to us at our helpdesk:

17.01.2019 at 11:00-13:30
Audimax Foyer

And questions concerning examinations?

Visit our info session:

16.01.2019 at 16:45
Audimax

General questions

Linda Karger
Linda.karger@tum-som.com
Studentexperience@tum-som.com
General information on the specializations in technology

Technical University of Munich
TUM School of Management
Bachelor in Management & Technology
## General information

<table>
<thead>
<tr>
<th>Goal</th>
<th>Basic knowledge in Engineering, Natural and Life Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent</td>
<td>Minimum 42 ECTS</td>
</tr>
<tr>
<td>Start</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; semester</td>
</tr>
<tr>
<td>Place</td>
<td>Downtown: Electrical and Information Technology</td>
</tr>
<tr>
<td></td>
<td>Garching: Chemistry, Informatics, Mechanical Engineering</td>
</tr>
<tr>
<td></td>
<td>Downtown and Garching: Computer Engineering</td>
</tr>
<tr>
<td></td>
<td>Straubing: Renewable Resources</td>
</tr>
<tr>
<td>Fixing</td>
<td>Registration to the first exam</td>
</tr>
</tbody>
</table>
General information

You should opt for one of our specializations in technology in the 2nd semester.

If you are not sure which specialization to choose, you can attend different courses from specializations of your interest to have a look at the content and form your own opinion.

Attention: By registering for a mandatory exam in one of our specializations in technology, you made a binding decision for that specialization. A later switch of specialization might be possible under certain circumstances. For more information please contact npv_bachelor@wi.tum.de.

Important: “Computer Engineering” is the only specialization taught 100% in English. If you choose one of the other specializations, the courses will be taught mainly in German.

If you choose “Renewable Ressources”, you need to move to Straubing. You have the possibility to complete the entire Bachelor’s program there.
General information

You can find the **overview of mandatory/electives modules** of each specialization either in the program-specific academic and examination regulations or in your Curricula Support in TUMonline (see below).

https://www.wi.tum.de/programs/bachelor-in-mt/downloads/
## General information

Curricula Support in TUMonline (e.g. Informatics):

<table>
<thead>
<tr>
<th>Node-Name</th>
<th>Academic achievements, by: 29.11.2018 21</th>
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</thead>
<tbody>
<tr>
<td>[2016] Management and Technology</td>
<td></td>
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<tr>
<td>Basics</td>
<td>90</td>
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<tr>
<td>Specialization in Technology</td>
<td>42</td>
</tr>
<tr>
<td>Specialization in Technology: Chemistry</td>
<td>42</td>
</tr>
<tr>
<td>Specialization in Technology: Informatics</td>
<td>42</td>
</tr>
<tr>
<td>Prüfmodul Informatik</td>
<td></td>
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<tr>
<td>[V0] IN0001 Introduction to Informatics 1</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0006 Introduction to Software Engineering</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0009 Basic Principles: Operating Systems and System Software</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0008 Fundamentals of Databases</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0024 Information Management for Digital Business Models</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0002 Fundamentals of Programming (Exercises &amp; Laboratory)</td>
<td>6</td>
</tr>
<tr>
<td>Wahlfächer Informatik</td>
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<tr>
<td>[V0] IN0009 Algorithms and Data Structures</td>
<td>5</td>
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<tr>
<td>[V0] IN0012 Bachelor Practical Course</td>
<td>10</td>
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<tr>
<td>[V0] IN2119 User Modeling and Recommender Systems</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN2023 Image Understanding I: Machine Vision Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>[V0] IN2359 Data Analysis and Visualization in R</td>
<td>6</td>
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<tr>
<td>[V0] IN2111 3D User Interfaces</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0004 Introduction to Computer Organization and Technology - Computer Architecture</td>
<td>8</td>
</tr>
<tr>
<td>[V0] IN2032 Electronic Publishing / Document Engineering and the World-Wide Web</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN0003 Functional Programming and Verification</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN2009 IT Security</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN2018 Mathematics in Natural and Economic Science 2</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN2161 Networks for Monetary Transactions</td>
<td>3</td>
</tr>
<tr>
<td>[V0] IN2113 Programming Languages</td>
<td>6</td>
</tr>
<tr>
<td>[V0] IN4051 Seminar Informationsmanagement</td>
<td>4</td>
</tr>
<tr>
<td>Specialization in Technology: Electrical Engineering and Information Technology</td>
<td>42</td>
</tr>
<tr>
<td>Specialization in Technology: Mechanical Engineering</td>
<td>42</td>
</tr>
<tr>
<td>Specialization in Technology: Computer Engineering</td>
<td>42</td>
</tr>
<tr>
<td>Specialization in Technology: Renewable Resources</td>
<td>42</td>
</tr>
</tbody>
</table>

Please note: Pflichtfächer = Mandatory modules, Wahlfächer = Elective modules.
Mechanical Engineering

https://www.youtube.com/watch?v=YHWk5SwQAq8
# Mechanical Engineering: modules overview according to ideally study plan

<table>
<thead>
<tr>
<th>Semester</th>
<th>Module</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>Mathematics II</td>
<td>6</td>
</tr>
<tr>
<td>3rd</td>
<td>Technische Mechanik</td>
<td>6</td>
</tr>
<tr>
<td>3rd</td>
<td>Introduction into Computer Science (for non Informatics studies)</td>
<td>5</td>
</tr>
<tr>
<td>4th</td>
<td>Grundlagen der Entwicklung und Produktion</td>
<td>3</td>
</tr>
<tr>
<td>4th</td>
<td>Werkstoffe im Maschinenwesen</td>
<td>5</td>
</tr>
<tr>
<td>5th</td>
<td>Maschinenelemente – Grundlagen, Fertigung, Anwendung</td>
<td>7</td>
</tr>
<tr>
<td>6th</td>
<td>CAD und Maschinenzeichnen 1**</td>
<td>2</td>
</tr>
<tr>
<td>6th</td>
<td>CAD und Maschinenzeichnen 2**</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum Elective Subject: 5

* The relevant catalog of elective modules can be found in the Curricula Support in TUMonline (see above).

** Although the program-specific academic and examination regulations indicate 5th and 6th semester for CAD und Maschinenzeichnen 1 & 2, we recommend to take the courses in the 3rd and 4th semester.
Electrical Engineering and Information Technology

https://www.youtube.com/watch?v=ggpLvX1INvl
**Electrical Engineering and Information Technology: modules overview according to ideally study plan**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd semester</td>
<td>Mathematics II</td>
<td>6</td>
</tr>
<tr>
<td>3rd semester</td>
<td>Principles of Electrotechnology</td>
<td>6</td>
</tr>
<tr>
<td>3rd semester</td>
<td>Grundlagen der Informationstechnik</td>
<td>5</td>
</tr>
<tr>
<td>4th semester</td>
<td>Elektrotechnik</td>
<td>5</td>
</tr>
<tr>
<td>4th semester</td>
<td>Analog Electronics</td>
<td>5</td>
</tr>
<tr>
<td>5th semester</td>
<td>Nachrichtentechnik I - Signaldarstellung</td>
<td>5</td>
</tr>
<tr>
<td>5th semester</td>
<td>Introduction into Computer Science (for non Informatics studies) **</td>
<td>5</td>
</tr>
<tr>
<td>6th semester</td>
<td>Elective Subject *</td>
<td>minimum</td>
</tr>
</tbody>
</table>

* The relevant catalog of elective modules can be found in the Curricula Support in TUMonline (see above).

** Although the program-specific academic and examination regulations indicate 5th semester for Introduction into Computer Science (for non Informatics studies), we recommend to take the course in the 3rd semester.
Chemistry

https://www.youtube.com/watch?v=2KQi7L3ImBY
## Chemistry: modules overview according to ideally study plan

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>Allgemeine und anorganische Chemie 6</td>
</tr>
<tr>
<td>3rd</td>
<td>Grundlagen der Physikalischen Chemie 1 6</td>
</tr>
<tr>
<td>4th</td>
<td>Einführung in die Organische Chemie 6</td>
</tr>
<tr>
<td></td>
<td>Chemisches Praktikum für TUM-BWL 6</td>
</tr>
<tr>
<td>5th</td>
<td>Biologie für Chemiker 6</td>
</tr>
<tr>
<td></td>
<td>Analytische Chemie 3</td>
</tr>
<tr>
<td></td>
<td>Chemiesoftware und Datenbanken für TUM-BWL 3</td>
</tr>
<tr>
<td>6th</td>
<td>Technische Chemie für TUM-BWL 6</td>
</tr>
</tbody>
</table>
Informatics

https://www.youtube.com/watch?v=sJlwgFZIVKE
# Informatics: modules overview according to ideally study plan

<table>
<thead>
<tr>
<th>Semester</th>
<th>Module</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>Information Management for Digital Business Models</td>
<td>6</td>
</tr>
<tr>
<td>3rd</td>
<td>Praktikum: Grundlagen der Programmierung</td>
<td>6</td>
</tr>
<tr>
<td>3rd</td>
<td>Einführung in die Informatik 1</td>
<td>6</td>
</tr>
<tr>
<td>4th</td>
<td>Einführung in die Softwaretechnik</td>
<td>6</td>
</tr>
<tr>
<td>5th</td>
<td>Grundlagen: Datenbanken</td>
<td>6</td>
</tr>
<tr>
<td>5th</td>
<td>Grundlagen: Betriebssysteme und Systemsoftware</td>
<td>6</td>
</tr>
<tr>
<td>6th</td>
<td>Elective Subject *</td>
<td>minimum</td>
</tr>
</tbody>
</table>

* The relevant catalog of elective modules can be found in the Curricula Support in TUMonline (see above).
Computer Engineering

https://www.youtube.com/watch?v=cvpdDzWQe30&t=2s
Computer Engineering: modules overview according to ideally study plan

Elective: Introduction into Computer Science (for non Informatics studies) *
Elective: User Modeling and Recommender Systems *
Elective: Information Management for Digital Business Models *
Elective: Mathematics II *
Elective: Functional Programming and Verification *
Elective: Bachelor Practical Course *
Elective: 3D User Interfaces *
Elective: Programming Languages *
Elective: Introduction to Software Engineering *
Elective: Principles of Information Engineering *
Elective: Principles of Electrotechnology *
Elective: Analog Electronics *
Elective: Data Analysis and Visualization in R *
Elective: Control Theory (MSE) *

* The relevant catalog of elective modules can be found in the Curricula Support in TUMonline (see above).

** Recommended order can be found here:

minimum 42

Elective Subject *

2nd - 6th semester **
Renewable Resources

https://www.youtube.com/watch?v=9CvVXJ7P0uU&t=1s
Renewable Resources: modules overview according to ideally study plan

<table>
<thead>
<tr>
<th>2nd semester</th>
<th>3rd semester</th>
<th>4th semester</th>
<th>5th semester</th>
<th>6th semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Einführung in die Informatik</td>
<td>Physik</td>
<td>Allgemeine und anorganische Chemie</td>
<td>Grundlagen der organischen Chemie</td>
<td>Technische Thermodynamik</td>
</tr>
</tbody>
</table>

* The relevant catalog of elective modules can be found in the Curricula Support in TUMonline (see above).
Any questions left?

General information on the specializations in technology
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Contact person for questions on TUMonline, examinations and modules within the specializations
Beate Pommer
beate.pommer@wi.tum.de
Tel.: 089 289 25084

Please note: Questions concerning the content can be addressed to the chair in charge of the module. If you want to get in touch with students from higher semesters to exchange experiences, please contact the Student Council (https://tum-som.com/) or the Student Council in Straubing for questions on Renewable Resources (fachschaft@cs.tum.de).