Welcome, new Master’s students!

Important note on Covid-19 rules:

You are **invited to stay** if you fulfil the so-called 3G Rule:
‘Getestet, Geimpft, Genesen’ → Tested, Vaccinated, Recovered

**You must leave** this event if
- you do not fulfil the 3G rules
- you have symptoms that are typical for Covid-19, e.g., fever, dry cough, tiredness

Please show your valid Covid certificate and ID on request of our staff. We thank you for your support and understanding!
Welcome Master’s Students!

Prof. Dr. Markus Bambach,
Director of Studies, D-MAVT
20 September 2021, Zurich
Welcome, new Master’s students!

Monday, Sept. 20, 2021, 12:00

- Welcome and Introduction to D-MAVT by Prof. Dr. M. Bambach, Study Director
- Video by Prof. Dr. S.M. Springman, Rector of ETH Zurich
- Administrative Information by Dr. M. Velonà, coordinator of studies
- “good to know” – representatives of student associations LIMES and AMIV
ETH Zürich in brief

Early ETH:
- Founded in 1855 with six departments (including D-MAVT)
- Driving force of industrialization in Switzerland

ETH Zürich today:
- Leading international university for science and technology
- Top university in continental Europe
- approx. 23'500 students
- approx. 520 professors in 16 departments

Reasons for success:
- Ground-breaking fundamental research
- Putting new findings into practice
- Providing rigorous technical education
D-MAVT: your department

D-MAVT:
• Departement MAschinenbau und V erfahrensT echnik
• Founded in 1855 – largest department at ETH

Figures as of 2020:
• 1’800 Bachelor’s students
• 1’260 Master’s students
• 453 Doctoral students
• 50 professors
• 10 patents
• 7 spin-offs
D-MAVT Board

Prof. E. Mazza
Head of Department

Prof. D. M. Kochmann
Deputy Head of Department
(Doctoral Delegate)

Prof. M. Bambach
Director of Studies
Newly beginning students, fall 2021:

Master’s students

- Mechanical Engineering* 221
- Process Engineering* 20
- Micro and Nanosystems 13
- Robotics, Systems and Control 162
- Nuclear Engineering** 21

49.8% from abroad

* Not yet final, as of 17.09.2021
** Starting at EPFL this semester
### Master’s programs – leading house D-MAVT

<table>
<thead>
<tr>
<th>Programs</th>
<th>short</th>
<th>partner departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical Engineering</td>
<td>ME</td>
<td>D-ITET</td>
</tr>
<tr>
<td>Process Engineering</td>
<td>PE</td>
<td>D-ITET</td>
</tr>
<tr>
<td>Micro and Nanosystems</td>
<td>MNS</td>
<td>D-ITET, D-INFK</td>
</tr>
<tr>
<td>Robotics, Systems and Control</td>
<td>RSC</td>
<td></td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>NE</td>
<td>EPFL</td>
</tr>
</tbody>
</table>

- **consecutive**
- **specialized**
- **partners**

(first semester at EPF Lausanne)
Tutor System

Master’s studies in D-MAVT are supervised by a tutor and defined by a learning agreement:

• Tutor discusses and approves the student's choice of courses in the category “Core Courses”.
• Tutor advises in the choice of courses for the category “Multidisciplinary Courses”.
• Tutor approves the subject and the supervisor of the Semester Project and the Master's Thesis.
• The learning agreement formalizes the choice of courses, approved by the tutor.
• Projects abroad or in industry are possible with approval of the tutor: discuss in advance!
• Projects in other labs at ETH in ME are possible with approval of the tutor: discuss in advance!
• Tutor can approve courses in the category “Core Courses” achieved in official exchange programs during the studies at ETH Zurich: discuss in advance!
Tutors in Mechanical Engineering (1/2)
Tutors in Mechanical Engineering (2/2)
Tutors in Process Engineering

A. Bardow
I. Herrmann
M. Lukatskaya
M. Mazzotti
C. Müller
D. Norris

D. Poulikakos
S. Pratsinis
R. Quidant
A. Steinfeld
M. Tibbitt
Tutors in Micro and Nanosystems

D-MAVT
Ahmed  Dual  Hertmann  Hierold  Kochmann  Nelson  Norris  Pauli Vidal
Pratsch  Quidant  Schützus  Tibbitt

D-ITET
Leuthold  Luisier  Vörös  Wood

D-PHYS
Ensslin  Ihn

D-BSSE
Hierlemann
D-MAVT’s Code of Conduct

• D-MAVT believes that our environment should be respectful and professional for all members including students, professors, research staff, administrative staff, and lecturers.

• We treat everyone with the same respect with which we expect to be treated by others.

• We behave and present ourselves professionally at all times. (You are now ambassadors of ETH and of D-MAVT.)

• We all agree that our environment should be:
  • one of mutual respect
  • free from threats and violence
  • free from sexual harassment
  • free from discrimination
  • free from bullying and mobbing
ETH Services

IT student services

The IT Services “Informatikdienste (ID)“ offers all registered ETH students, auditors, and special students the following free basic IT services:

- ETH login
- mailbox with 200 MB memory
- ETH-wide available personal home directory with 2 GB disk space
- personal ETH website for scholastic work
- polybox with 50 GB «Dropbox»-similar on campus storage
- IT shop with software for free (only for enrolled students)
- public computer labs equipped with Office, web, programming tools, mathematical software

www.ethz.ch/students/en/service/it-services.html

Safety, Security, Health, Environment

Information on the coronavirus

The ETH task force headed by the Vice President for Infrastructure is monitoring developments in the coronavirus pandemic and will continue to draw up suitable measures as necessary. You can find constantly updated information on the coronavirus web page.

To ETH's coronavirus web page ➔

ETH Policy

USE OF IT RESOURCES AT ETH ZURICH

- You may only use legally licensed software for ETH purposes.
- Software used for projects are property of labs and must not be distributed.
- Illegal use of software is not tolerated and has severe consequences.

Plagiarism is understood as the complete or partial imitation of the work of another author without citing that work's source and author. To avoid:

- Citation Etiquette - Plagiarism Information Sheet
- Declaration of Originality - Students attest to the originality of their work.
You are about to…

• … join a **fantastic peer group** of students: *take full advantage, make friends, form study groups, network, enjoy the diversity!*

• … interact with renowned **scientists** and the next generation of scientists: *take full advantage, ask questions, learn from them and challenge their thinking!*

• … get one of the last few chances in life to **learn** whatever you wish to study: *explore new fields, learn new concepts, think outside the box, dare to think the unthinkable!*

• … explore your **abilities** and push your **limits**: *in your classes, in your projects, in your extracurricular activities.*

• … make a **unique contribution**: *through your projects, through your inventions, through your personal interactions.*

• … become part of the ETH and D-MAVT **family** with all its privileges and responsibilities: *use them carefully and thoughtfully!*
Graduation 2019 *(your pictures here soon?)*

Graduating Master’s Class of 2019
Good luck and much success!

Professor Markus Bambach  
D-MAVT Director of Studies  
mbambach@ethz.ch

ETH Zurich  
D-MAVT  
LEE K 208  
Leonhardstrasse 21  
8092 Zurich
Master’s curriculum

<table>
<thead>
<tr>
<th>Semester</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>ECTS</th>
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<td>Core Courses</td>
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<tr>
<td>Master’s Thesis</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Semester Project</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Industrial Internship</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Multidisciplinary Courses</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Science in Perspective (SiP)</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Master’s of Science ETH</td>
<td></td>
<td></td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>
Core Courses (36 ECTS)

- Core Courses (36 ECTS) ~ 9 courses
- Core Courses = core knowledge in the tutor’s area of specialization
- Performance assessment of “Core Courses” has to be graded
Multidisciplinary Courses (6 ECTS)

- Multidisciplinary courses ~ 2 courses
- Add depth to scientific and technical knowledge or breadth to the range of your skills
- ME & PE: Student’s choice (with/without suggestion of tutor)
- MNS & RSC: in agreement with tutor
Semester Project (8 ECTS)

- Semester Project ~ 240 hours - 6 weeks (full-time)
- Generally carried out during the 2nd semester in agreement with the tutor
  - Part-time during the semester parallel to courses
  - Full-time during the semester break
- In the tutor's area of specialization or in another field of an ETH professor (to be approved by tutor)
- Report and presentation of the project is requested
- Registration on myStudies required
- Deadlines have to be respected
Science in Perspective (2 ECTS)

At least 1 course, selected ONLY from the Course Catalogue: “GESS Science in Perspective” in HS/FS

• Available courses are listed in Course Catalogue
  Programme: GESS Science in Perspective

• Recommendations in Section: Type B
  Subsection: D-MAVT

Detailed information at:
Industrial Internship (8 ECTS)

• At least 12 weeks in an industrial company, in Switzerland or abroad
• Research institutions are not allowed
• Only Internships undertaken after completing the Bachelor’s degree can be recognized
• In Master’s Program ME and PE, The internship has to be completed before the Master’s Thesis
• Students organize the internship independently
• Catalogue of companies available under www.mavt.ethz.ch/praxis
• Recognition: upload “Certificate of employment” with description of tasks under www.mavt.ethz.ch/praxis
Master’s Thesis (30 ECTS)

• 6 months full-time
• supervised by an ETH professor (to be approved by tutor)
• report and presentation of the project is requested
• registration on myStudies required
• deadlines have to be respected

In order to start the Master’s Thesis, students must have:
• achieved the required amount of credit points in the Core Courses
• obtained the credit points for the Semester Project
• obtained the credit points for the Industrial Internship (ME and PE)
Students enrolled in specialized Master have the tutor already assigned during the admission.

ETH and EPFL Bachelor’s students in consecutive Master select their tutor at the start of their Master's studies.
Course Catalogue

http://www.courses.ethz.ch

Important information regarding courses and exams in HS / FS

- Lecturers
- Periodicity
- Language of instruction
- ECTS credits: credits received after successfully completing examinations
Learning Agreement (LAG)

- Possible after approval of tutorship
- Submission: within 3 weeks after the start of the semester on myStudies
- Updates: possible with tutor’s approval
- Final version: before enrolling for the Master’s Thesis

As soon as possible:
- Ask for an appointment with the tutor
- Request the tutor approval on myStudies
- Prepare your proposal, on the basis of your interest and sample curricula on the web
- Submit the LAG on myStudies
Calendar 2021 - 2022

Academic Calendar

Fall semester (HS)  
20 Sep 2021 – 24 Dec 2021

Winter session examinations:  
24 Jan 2022 – 18 Feb 2022

Spring semester (FS)  
21 Feb 2022 – 3 June 2022

Summer session examinations:  
8 Aug 2022 – 2 Sep 2022

“End of semester examination”: during the last two weeks of the semester and first two weeks after the end of semester
Examinations

Session examinations: twice a year planned by the Academic Services

End-of-semester examinations: carried out during the last two weeks of a semester and during the first two weeks of the semester break, organized by lecturers. Enrollment in the courses and registration for the examination is required.

Semester performance: integrated performance assessments during the semester or performance assessments which take place outside the normal semester schedule. Enrollment in the courses is required.

MAKE SURE TO NOT MISS THE DEADLINE FOR THE REGISTRATION OF EXAMINATIONS
Assessment and grading scale

• Performance assessments are always graded.

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0 – 5.75</td>
<td>Excellent</td>
</tr>
<tr>
<td>5.5 – 5.25</td>
<td>Very Good</td>
</tr>
<tr>
<td>5.0 – 4.75</td>
<td>Good</td>
</tr>
<tr>
<td>4.5 – 4.25</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>4.0</td>
<td>Pass</td>
</tr>
<tr>
<td>3.5</td>
<td>Fail</td>
</tr>
<tr>
<td>3.0</td>
<td>Poor</td>
</tr>
<tr>
<td>2.5</td>
<td>Very Poor</td>
</tr>
<tr>
<td>2.0</td>
<td>Extremely Poor</td>
</tr>
<tr>
<td>1.0</td>
<td>Not Measurable</td>
</tr>
</tbody>
</table>

• Courses can be assessed with pass/fail or with a grade.

• Students check their performance overview on myStudies.

• The pass grade is 4.0

• No show = 1st attempt
Master’s Degree

The grade point average of the Master’s Degree is based on following categories (different weights in Master’s Programs):

• Core Courses
• Semester Project
• Master’s Thesis

The D-MAVT Master’s Graduation Ceremony takes place at the end of the spring semester
ETH Zurich has introduced a **COVID certificate requirement for the entire study process.** Always carry your certificate and an ID with you.

Face masks continue to be compulsory in teaching events and in all indoor spaces, and distancing rules must be observed wherever possible. Sanitizers are available, but **bring your own mask!** We also recommend using the Swiss CoVid App.

Few electricity plugs available – make sure to **charge your devices over night!**

Study at home, work space is scarce within ETH buildings

All information about streaming and recordings are to be found here: 
Culture shock

To adapt to the new environment requires a lot of effort. If problems arise, please ask for assistance.
We can help you!

- **Tutor**
- **Other Students**
- **D-MAVT**: Dr. Maddalena Velonà, LEE K 210, Tel. +41 44 632 21 99
- **Academic Services**: Dr. Andrea Schrott, HG FO 22.1, Tel. +41 44 632 57 96
- **Psychological Counseling Center of ETH and the University of Zurich**: [http://www.pbs.uzh.ch/index_en.html](http://www.pbs.uzh.ch/index_en.html)
- **Student Advisory Service**: [https://ethz.ch/students/en/advice/student-advisory-service-coaching.html](https://ethz.ch/students/en/advice/student-advisory-service-coaching.html)
- **Student Association**: [www.amiv.ethz.ch](http://www.amiv.ethz.ch)
D-MAVT Student Administration

ETH Zentrum
LEE K 208
Leonhardstrasse 21
8092 Zürich
info@mavt.ethz.ch

Opening hours during the semester:
Mon, Thu 13:00 - 16:00
Tue, Wed, Fri 09:00 - 12:00
D-MAVT shirts

We are proud of D-MAVT!

Students designed MAVT shirts

• Available in various colors and sizes - *while stocks last!*

• Every student receives one voucher

• Redeem voucher at ETH Store, MM Building (ML is momentarily closed)
Additional information

- Food and drinks are not allowed in the lecture rooms
- Bicycles can be parked in the areas marked in red ETH Zurich Zentrum:

![Map of ETH Zurich Zentrum with bicycle parking spaces and pump stations marked]

- Bicycle parking spaces
- Bicycle pump stations
We wish you a lot of success and fun!
LIMES

Ladies in Mechanical and Electrical Studies
- connecting with women* in the studies
- connecting with partners in the industry
- inspiring younger girls*
EVENTS

- Mentoring
- Erstsemestrigenapéro
- Schülerinnentag
- Frauenabend
- Exkursionen
- Stammtisch
- LIMES Talks
... vieles mehr
LIMES
Ladies in Mechanical and Electrical Studies

instagram: @limes.eth

website: limes.ethz.ch
Zürich, September 20th 2020

Welcome Day
High School Politics

Representation of students' interests

Questions or complaints to hopo-mavt@amiv.ethz.ch
Offers and Activities

• Theater
• Poker- / Jass tournament
• Sushi-Night
• Absolventenparty
• Strongmanrun
• Skiweekend
• Lasertag
• Beachvolleyball tournament
### Study Documents

Welcome Day 2021

More than 1000 summaries, old exams, etc.

amiv.ethz.ch

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<table>
<thead>
<tr>
<th>Department</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>D-ITET</td>
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<td>D-MAVT</td>
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<tr>
<td>other</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

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Reset
Written recollections of oral exams extremely useful when preparing for an exam
Welcome Day 2021

Lounge

- Couches
- TV with game console
- Microwaves
- Coffee machine
- Beer vending machine
- Table football
- Billiard table
Wie kannst du mitmachen?

Voluntary contributions for the Autumn Semester 2019

Note: If membership is selected, the personal and address data required for member administration and other club activities will be forwarded to the respective club.

<table>
<thead>
<tr>
<th>Solidarity fund for foreign students (CHF 5.-)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOSETH membership (CHF 5.-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSETH membership (CHF 10.-; for doctoral students CHF 35.-)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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CAB E37
Universitätstrasse 6
8092 Zürich

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info@amiv.ethz.ch