**WELCOME!**

**WHO ARE WE?**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hans Kuerten</td>
<td>Program director</td>
<td><a href="mailto:J.G.M.Kuerten@tue.nl">J.G.M.Kuerten@tue.nl</a>, Gem. Zuid 2.147</td>
</tr>
<tr>
<td>Marijke Creusen-Erica</td>
<td>Academic advisor</td>
<td><a href="mailto:m.creusen.erica@tue.nl">m.creusen.erica@tue.nl</a>, Gem. Zuid 1.121</td>
</tr>
<tr>
<td>Rob van der Heijden</td>
<td>Program coordinator</td>
<td><a href="mailto:r.van.der.Heijden@tue.nl">r.van.der.Heijden@tue.nl</a>, Gem. Zuid 1.19</td>
</tr>
</tbody>
</table>
EDUCATION GUIDE MW – MSEW - AIESW

https://educationguide.tue.nl

Go to:
Graduate School
Master’s programs
Mechanical Engineering

Information for students MW, AIES and MSE-W on program, regulations and procedures.
Go to:
Graduate School
Special Master’s tracks
Manufacturing Systems Engineering

Information for students MSE-W about MSE-W curriculum. Pay attention: MSE-W students also need the information from the regular MW education guide.
IN THIS PRESENTATION

- Curriculum Master’s program MW/MSEW/AIES MW 2020-2021
- Specialization via registration research group – MAP procedure
- Broadening your master’s program
- Coaching and important regulations Graduate School
- How to prepare yourself?
ALL- PROGRAM STRUCTURE

Courses (60)

Internship (15)  Graduation project (45)

One quarter = 15 EC = 10,5 weeks
Most courses are 5 EC = 3 courses per quarter

Advice = Make your own program schedule!
# MW PROGRAM STRUCTURE ‘20-21’

(2 YEARS – 120 EC)

<table>
<thead>
<tr>
<th>Component</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core program</td>
<td>20</td>
</tr>
<tr>
<td>Specialization courses</td>
<td>20</td>
</tr>
<tr>
<td>Professional Skills</td>
<td>5</td>
</tr>
<tr>
<td>Individual Program / Free Electives</td>
<td>15</td>
</tr>
<tr>
<td>Internship</td>
<td>15</td>
</tr>
<tr>
<td>Graduation Project</td>
<td>45</td>
</tr>
</tbody>
</table>

PART OF YOUR SPECIALIZATION’S PROGRAM

PART OF YOUR SPECIALIZATION’S PROGRAM

PART OF YOUR SPECIALIZATION’S PROGRAM

PART OF YOUR SPECIALIZATION’S PROGRAM
MW CORE COURSES (20 EC)

- All courses are 5 EC
- You have to select 20 EC from the MW CORE courses list 20-21 (education guide)

- Selection can depend on:
  - Your specialization / section / research group
  - Your interests
  - Time slots
  - Study planning, ......

- The Examination Committee has to approve your entire program!
- It is strongly recommended to discuss your core courses with your TU/e mentor
**MW SPECIALIZATION COURSES (20 EC)**

- You have to select 20 EC from the MW specialization course list 20-21 (education guide)
- Courses are linked to and offered by a section
- Most courses are 5 EC, some are 2.5 EC
- Always in consultation with your TU/e mentor; he/she has to approve your specialization’s program

Your selection can depend on....
- Your specialization / research group
- Your interests
- Prior knowledge needed for graduation project
- Your study planning
- Time slots
- ....
MW PROFESSIONAL SKILLS (5 EC)

➢ You have to complete two mandatory courses (each course is 2.5 EC)

➢ Purpose = to prepare yourself for your future career as an engineer.

1. 4WM00 Coaching and tutoring (group dynamics, leadership, project planning,...)

2. 4WM10 Career Development  (orientation of future career, assessment, networking....)

PAY ATTENTION:

For students without experience in Design Based Learning (OGO), a compulsory alternative is offered for the Career Development course 4WM00:

4WM50 – Team work and academic writing (2.5EC)
## MSEW PROGRAM STRUCTURE ‘20-21’

(2 YEARS – 120 EC)

<table>
<thead>
<tr>
<th>Course Type</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core program</td>
<td>30</td>
</tr>
<tr>
<td>Specialization courses</td>
<td>15</td>
</tr>
<tr>
<td>Individual Program / Free Electives</td>
<td>15</td>
</tr>
<tr>
<td>Internship</td>
<td>15</td>
</tr>
<tr>
<td>Graduation Project</td>
<td>45</td>
</tr>
</tbody>
</table>

*PART OF YOUR SPECIALIZATION’S PROGRAM*
MSEW CORE PROGRAM

<table>
<thead>
<tr>
<th>Two basic mandatory core courses</th>
<th>Integrated system design 4CM70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manufacturing Technology 1CM160</td>
</tr>
</tbody>
</table>

From four of the pillars, one course from a list of courses must be selected.

**Pillar 1: Machine design and control**  
NB: Students in the Mechanical Engineering stream can only choose between 4CM00 and 4UM00 in Pillar 1.

**Pillar 2: Factory design and control**

**Pillar 3: Maintenance design and control**

**Pillar 4: Supply network design and control**

**Pillar 5: AI design and control**
You have to take three courses from a selection of specialization courses in the master's program Mechanical Engineering. From your allocated section!

On the MW Education Guide’ a list is (in future on the MSE Guide) available of all specializations courses.
### AIES-MW PROGRAM STRUCTURE ‘20-21’

**2 YEARS – 120 EC**

<table>
<thead>
<tr>
<th>Component</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core program</td>
<td>30</td>
</tr>
<tr>
<td>Specialization courses</td>
<td>10</td>
</tr>
<tr>
<td>Professional Skills</td>
<td>10</td>
</tr>
<tr>
<td>Free Electives</td>
<td>10</td>
</tr>
<tr>
<td>Internship</td>
<td>15</td>
</tr>
<tr>
<td>Graduation Project</td>
<td>45</td>
</tr>
</tbody>
</table>

*PART OF YOUR SPECIALIZATION’S PROGRAM*
## AIES-MW CORE COURSES (30 EC)

### Four components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Mathematics course</td>
<td>Select from a list of three courses</td>
<td>5 EC</td>
</tr>
<tr>
<td>Two mandatory courses on AI</td>
<td></td>
<td>10 EC</td>
</tr>
<tr>
<td>Two courses from one of the following themes</td>
<td>Model based control, Optimization, Machine Learning for modelling and Design, Dynamical Systems, Computer architectures for AI</td>
<td>10 EC</td>
</tr>
<tr>
<td>One mandatory course on Human interaction &amp; ethics</td>
<td></td>
<td>5 EC</td>
</tr>
</tbody>
</table>
AIES-MW SPECIALIZATION COURSES (10 EC)

Select 10 EC from one of the next themes:

- Mechanical Engineering
- Robotics
- Automotive Systems
- Healthy
- High-Tech Systems & Mechatronics
- Learning in Systems and Control
AIES-MW PROFESSIONAL SKILLS (10 EC)

- You have to complete three mandatory courses
- Purpose = to prepare yourself for your future career as an engineer.

1. 4WM00 Coaching and tutoring (group dynamics, leadership, project planning,...)
2. 4WM10 Career Development (orientation of future career, assessment, networking....)
3. 5ARA0 Software Engineering for Artificial Intelligence.

PAY ATTENTION:
For students without experience in Design Based Learning (OGO), a compulsory alternative is offered for the Career Development course 4WM00:

4WM50 – Team work and academic writing (2.5EC)
ALL - FREE ELECTIVES (15 EC)

Purpose = to adapt your program to your needs:

• TU/e-wide courses on MSc level
• Homologation courses
• Specialization courses
• 5 EC extension of internship
• Academic Writing in English
• ......

Discuss all options /wishes with your TU/e mentor or use ‘recommended list’ on the education guide.

Be aware: no overlap between courses is allowed (in free electives and specialisation).
ALL - INTERNSHIP

- 15 EC = 11 weeks fulltime job
- Extension is optional, up to 20 credits. 5 EC from free electives can be used for this extension
- Fixed time period which will be monitored.

GOAL: To link theory to practice (research / project)
To learn and develop scientific research skills. To prepare yourself for your graduation project

WHERE:
- We encourage (Dutch) students to go abroad: university, research company.
- Of course, depending on the developments in the Corona situation, an internship in the Netherlands could be the only option. Besides the internship project other alternatives are therefore defined.
  Check Canvas: 4INFOMW.
- Pre-Master students: An academic research assignment to be carried out at the TU/e or another university in the Netherlands or abroad is obligated!
ALL- GRADUATION PROJECT (45 EC)

The graduation project is split up into two separate parts:

1. Preparation phase (2-6 weeks)
   - Goal: literature study, definition project goals and content, project planning.
   - Completion by a report (vo/onv)

2. Project phase (6 to 8 months after completion phase 1)
   - Goal: execution of the project, presentation and defense.
   - Phase 2 may only commence if:
     - phase 1 is completed with a sufficient grade (vo)
     - phase 1 report is submitted in SharePoint
     - you have completed at least 70 EC of the masters program

Deadline phase 2 is predetermin and fixed and will be monitored by the study advisor. There are consequences if you cannot finish the project within time (PER MW 20-21, appendix 1, article b5).
IN THIS PRESENTATION

- Curriculum Master’s program MW/MSEW/AIES MW 2020-2021
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MASTER ALLOCATION PROCEDURE - MAP

- Specialization via registration procedure at a section!
- In order to select a research group you have to follow the MAP procedure
- Once a year (April-June)
- It’s an allocation procedure: students are allocated to sections based on their preferences and the available supervision capacity per section (and track)
<table>
<thead>
<tr>
<th>Research Sections Mechanical Engineering department CAP 2020-2021</th>
<th>MW+</th>
<th>AIES-W</th>
<th>MSE-W</th>
<th>AT</th>
<th>SET</th>
<th>S&amp;C</th>
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</thead>
<tbody>
<tr>
<td>Control Systems Technology</td>
<td>28</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>18</td>
<td></td>
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<td>Dynamics and Control</td>
<td>29</td>
<td>5</td>
<td>6</td>
<td>16</td>
<td>11</td>
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<td>Energy Technology</td>
<td>32</td>
<td>7</td>
<td></td>
<td>8</td>
<td></td>
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<td>Mechanics of Materials</td>
<td>36</td>
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<td>Microsystems</td>
<td>19</td>
<td>4</td>
<td>6</td>
<td></td>
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<tr>
<td>Power &amp; Flow</td>
<td>44</td>
<td>5</td>
<td></td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Polymer Technology</td>
<td>27</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IN THIS PRESENTATION

- Curriculum Master’s program MW/MSEW/AIES MW 2019-2020
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- How to prepare yourself?
BROADENING

Double Degree
Honors track
Certificate programs
Extra courses

Ask your academic advisor about all possibilities.

https://educationguide.tue.nl/broadening/
IN THIS PRESENTATION

- Curriculum Master’s program MW/MSEW/AIES MW 2020-2021
- Specialization via registration research group – MAP procedure
- Broadening your master’s program
- Coaching and important regulations Graduate School
- How to prepare yourself?
COACHING - MENTOR / THESIS SUPERVISOR

*Mentor (staff)*
- Supervises you when making a choice for you specialization electives and when composing your curriculum.
- Discusses your plans to improve your professional skills.
- Supports you in thinking about your career path.

Please make sure to contact your mentor to discuss these topics.

*Student Mentor (senior student)*
- Helps you get started
- Practical questions

*Thesis supervisor*

Is responsible for your graduation project.
COACHING - ACADEMIC ADVISOR

Marijke Creusen-Erica

Gemini-Zuid 1.121
040 – 247 5661
M.Creusen.Erica@tue.nl

• Advice and help to enhance study progress (practical questions, organise your courses; make a planning; information about electives or traineeship, personal circumstances)
• Information about how to organise study issues and regulations
• Personal and confidential appointments
COACHING - ACADEMIC ADVISOR

Reactive support
- Please feel free to ask all of your questions. It is always possible to make an appointment!

Proactive monitoring
- Courses
- Internship
- Graduation Project

MW Meetings
- Q&A session end of the first week.
- Internship meeting (March)
- Graduation meeting (June)
GS REGULATIONS

Registration Courses

- You have to register for your **courses and exams** in Osiris!
  - Deadline Osiris Q1 23 August
  - Extended deadline until 4 September via EA.tue.nl

- A course registration also includes the exam registration. **Attention**: make sure to use the check mark ‘exams’ in Osiris.

- Please, check the **deadlines**:
  - 5 working days before quarter 1
  - 20 working days before quarter 2, 3 and 4

  - Have you missed the deadline? ☞ AKR deadline!
    - Up to fifteen working days prior to the beginning of teaching in quarter 2, 3 and 4 = 20,- administration costs

  - Have you missed this extended AKR deadline? ☞ Then registration is not possible anymore.
Registration exams

• You are only allowed to take the exam with an exam registration (Osiris).

• A course registration also includes the exam registration. **Attention:** make sure to use the check mark ‘exams’ in Osiris.

• You can withdraw until 5 working days prior to the exam period.

• You have to register for re-exams. This is not done automatically.

• It is possible to register only for re-exams.
GS REGULATIONS

Registration exams

AKR applies to course registrations as well as to exam registrations. Check the registration deadlines and procedure:

- Exam registration deadline = up to 10 working days before examination period
- Have you missed the deadline? 📈 AKR deadline! Up to five working days prior to the beginning of the exam period = 20,- administration costs
- Have you missed this extended AKR deadline? 📈 Then registration is not possible anymore. You cannot participate in the exam.
Check:

Academic Year Agenda

Enrolling courses and examinations

........

https://educationguide.tue.nl/studying/planning/
IN THIS PRESENTATION

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HOW TO PREPARE FOR YOUR MSc PROGRAM?

If you are going to start the MSc program in September.....

Register for you BSc Exam

- Completed all bachelor courses? Register on Osiris for the Bachelor Exam.
- Register at least 1 month before examination date. (= also possible if you are still waiting for final results).
- In Osiris: ‘Voortgang’ – ‘Diploma aanvragen’

Subscribe for the Master’s Program

- **Studielink?** When you want to enroll on September 1\textsuperscript{st} or when you want to re-register for the BSc program per September 2020.
- **ESA** will send you an e-mail containing a link ‘Osiris aanmeld’. You’ll receive this email after you have been registered for your Bachelor Exam. This mail also includes additional information.
- If you would like to sign up for the temporary adjustment ‘bachelor-before-master’ rule? Then you need a re-enrollment in the BSc and an enrollment in the MSc!
- Are you going to start your Master’s Program later on? Then at a continuous enrollment you can register every 1\textsuperscript{st} of the month via ESA!
HOW TO PREPARE FOR YOUR MSc PROGRAM?

If you are going to start the MSc program in September…..

Be informed

• Read all information about the master’s program at http://educationguide.tue.nl

• check the ‘To-do list’! (educationguide)

• Check the website online information systems. (OSIRIS, Canvas, Mytable, Education guide)

• Check 4INFOMW (canvas)
HOW TO PREPARE FOR YOUR MSc PROGRAM?

If you are going to start the MSc program in September…..

Course registration / exam registration when enrolling per September 2020?

• While waiting for your bachelor exam and master enrollment, you have to subscribe for master’s courses (check deadlines).
• However, this is only a course registration. You cannot register yet for exams. You still need to do this as soon as you have received a master’s enrollment. Check exam registration deadlines.

Quarter 1 Start following courses

Make an appointment with your mentor to discuss your program

Find out who your mentor is? Please contact the secretary of the research section you have been allocated to.
Program Committee Mechanical Engineering

*Dutch: Opleidingscommissie Werktuigbouwkunde (OCW)*

- Give students (formal) power over their program

- What do we discuss?
  - Quality of the program
    - The way courses are evaluated
    - The Master Allocation Procedure
    - Online education
    - Advise on Innovation funds
    - Curriculum (core / specialisation courses)
Student members

Stan de Rijk
Master

Johan Somers
Master

Nicky Verheijen
Bachelor

Kim Smulders
Bachelor

Claudia Hanegraaf
Bachelor
Staff members

• dr.ir. R. Luttge
• dr.ir. J.M. van de Mortel-Fronczak
• dr.ir. R.H.J. Peerlings
• dr.ir. L.C.A. van Breemen
• dr. B.P.M. van Esch
Contact us!

• Want to know more about the OCW?
• Want to join the OCW?
• Noticed improvements?

• Meeting once a month

• ocw@tue.nl
Organisatie

Interne doorstroom naar master

Onderstaand stappenplan is van toepassing wanneer je gedurende het huidige collegejaar wenst door te stromen van bachelor of pre-master naar master.

Wens je door te stromen per 1 september van het volgend collegejaar?
Dien dan je verzoek tot inschrijving in via Studielink.

Stappenplan

<table>
<thead>
<tr>
<th>Wie?</th>
<th>Actie</th>
</tr>
</thead>
</table>

Reageren / Contact

ESA (Education and Student Affairs)
T: 040 - 247 4747
E: ESA@tue.nl

https://studiegids.tue.nl/organisatie/studentenadministratie/interne-doorstroom-naar-master/?L=
What if you still have to complete BSc components in the upcoming academic year before you can start your MSc program in 2020-2021?

Two regulations may be applicable:

1. Additional opportunity (Hardheidsclausule)  Regular measure, see OER BW, 5.2
2. Temporary adjustment Bachelor-before-Master rule  A one time exception due to the Corona Situation
WHAT IF YOU STILL HAVE TO COMPLETE BSc COMPONENTS IN 2020-2021

1. Additional opportunity (Hardheidsclausule)

OER BW, article 5.2 Additional opportunity to complete a study component (‘Bachelor’sbefore-Master’s rule’)

Students:

• with acknowledged extenuating personal circumstances, or
• are studying at or near the nominal tempo (graduation in 3-3.5 years) and
• who need to successfully complete a maximum of 2 more study components (not including the Bachelor’s final project),

can request the Examination Committee to allow one additional opportunity per study component to complete the study component(s) for which they have not yet obtained a pass mark.

(ask AA for additional conditions in ER BW 2019-2020)
WHAT IF YOU STILL HAVE TO COMPLETE BSc COMPONENTS IN 2020-2021

2. Temporary adjustment Bachelor-before-Master rule

- Students are allowed to follow and complete master courses during their Bachelor’s program in the academic year of 2020/21, if they have obtained at least 160 EC within their examination program of the Bachelor’s program before September 1, 2020.
- BEP is not included in these 160 EC.
- 160 EC of their Bachelor program after November 1, 2020? You are not allowed to take master’s courses. You will have to finish the Bachelor first before entering the Master’s program.
- Take into account: prior knowledge which is necessary to follow specific master’s courses (Canvas 4INFOJ3)
- You need to apply for a re-enrollment in the BSc program, and, an enrollment in the Master’s Program MW via Studielink before August 1 2020
WHAT IF YOU STILL HAVE TO COMPLETE BSc COMPONENTS IN 2020-2021

2. Temporary adjustment Bachelor-before-Master rule

- Bachelor degree obtained by 31 August 2021? The master courses will be transferred to the Master’s program including grades.

- Bachelor degree not obtained by 31 August 2021? The possibility to follow and complete master courses will be terminated. The Master courses are registered as extracurricular bachelor courses in case of internal TU/e students. If students eventually enroll in the Master’s program, they may apply for exemption for these courses.

WHAT IF YOU STILL HAVE TO COMPLETE BSc COMPONENTS IN 2020-2021

2. Temporary adjustment Bachelor-before-Master rule

Pay attention:

- Make an inventory of all obligatory tasks (courses/BEP)
- See what is realistic to achieve in combination with departments requirements.
- Make a plan (together with AA, BEP supervisor and/or fellow students)
- Make use of the basic skills of studying (see canvas page online learning: https://canvas.tue.nl/courses/16674)

Ask academic advisor for advice and more information