

Mechanical Engineering edition 2023/2024

Our university participates in EuroTeQ Engineering University, an alliance with five other Universities of Technology in Europe. All EuroTeQ partners provide educational programmes in Mechanical Engineering, among others. We can now provide you the opportunity to take one or more Mechanical Engineering courses from partner institutions, in an online or hybrid format. You can find more information in this folder.

## The EuroTeQ course catalogue

In our joint course catalogue, the six EuroTeQ universities and our associated partner Technion share educational offerings among partner institutions. The EuroTeQ courses are available to all students of each participating institution. It lists online courses, hybrid courses or blended courses with a very limited requirement to be present on-site.

The catalogue is available at **www.euroteq.eu/courses** and lists technological courses, but also language/culture and entrepreneurial courses.

Registration for courses is possible twice a year:

- In May, courses for the next autumn/winter semester are announced. Registration closes on August 1<sup>st</sup>. (Exception: registration for TalTech students closes June 20<sup>th</sup>.)
- in November, registration for courses for the next spring/summer semester will be possible.

Pre-requisites may apply. These can be found in the detailed course information.

Registration is done through your home institution. It is free of cost for students of all participating institutions.

For more information and deadlines, see the website: www.euroteq.eu/courses.



### Available virtual courses in Mechanical Engineering

For Mechanical Engineering, our Programme Directors have taken extra efforts by looking at how the available courses could fit into the different Mechanical Engineering programmes. Where possible, we have identified the recognition possibilities towards your home programmes.

Please note that it does, however, remain your own responsibility at all times to discuss your specific personal situation and the possibilities for credit recognition for the listed courses with your home institution!

You can find a first quick overview of available Mechanical Engineering courses in this folder. For the more detailed information, please go to **www.euroteq.eu/courses** and look up the course there. Please be sure to check the pre-requisites before registering!

#### **Courses with pre-recognition**

The following courses can be followed as a free elective within your home programme.

Course title	Offered by	Level	ECTS	Teaching format	Teaching period		
Mechatronics Systems Modeling and Control	TalTech	MSc	6	Online, time- independent	01 Sep '23 – 21 Dec '23		
For TU/e students in the Master-programme of Mechanical Engineering, this course can be recognized as free elective							
Instabilities and Turbulence	L'X	MSc	5	Online, at specific time	18 Sep '23 – 30 Nov '23		
For TU/e students in the Master-programme of Mechanical Engineering, this course can be recognized as free elective							
Modeling and Reduction of Complex Systems For TU/e students in the Master-pro elective	TUM ogramme of M	MSc echanical	5 Engineer	Hybrid ing, this course can	Summer term be recognized as free		
Artificial Intelligence in Automotive Engineering For TU/e students in the Master-pro- elective	TUM ogramme of M	MSc echanical	5 Engineer	Online, time- independent ing, this course can	19 Oct '23 – 15 Feb '24 be recognized as free		
Tissue Engineering and Regenerative Medicine: Fundamentals and Applications For TU/e students in the Master-pro- elective	TUM ogramme of M	MSc echanical	5 Engineer	Hybrid ing, this course can	25 Oct '23 – 7 Feb '24 be recognized as free		
Advanced seminar on Safe Cyber-Physical Systems For TU/e students in the Master-pro elective	TUM ogramme of M	MSc echanical	5 Engineer	Hybrid ing, this course can	18 Oct '23 – 7 Feb '24 be recognized as free		

### Additional Mechanical Engineering courses

The following table lists additional Mechanical Engineering courses at EuroTeQ partners that do not have pre-recognition, but that can be followed as an extra-curricular course in your program.

Course title	Offered by	Level	ECTS	Teaching format	Teaching period	
Numerical Methods in Fluid Mechanics	ĽX	MSc	5	Online, time- independent	18 Sep '23 – 30 Nov '23	
For TU/e students in the Master-pr course only	ogramme of N	lechanica	l Enginee		nts as extra-curricular	
Numerical Methods for Solid Mechanics	L'X	MSc, PhD	5	Online, time-	18 Sep '23 – 30 Nov '23	
independent For TU/e students in the Master-programme of Mechanical Engineering this course counts as extra-curricular course only						
Dynamics of Robots and Machines	TalTech	MSc	6	Hybrid	4 Sep '23 – 22 Dec '23	
For TU/e students in the Master-pr course only	ogramme of N	lechanica	I Enginee	ring this course cou	nts as extra-curricular	
Machine Vision For TU/e students in the Master-pr course only	TalTech ogramme of N	MSc lechanica	6 I Enginee	Blended ring this course cou	4 Sep '23 – 22 Dec '23 nts as extra-curricular	
Medical Technology 1 – an organ system-based approach For TU/e students in the Master-pr course only	TUM ogramme of N	MSc Iechanica	5 I Enginee	Hybrid ring this course cou	23 Oct '23 – 6 Feb '24 nts as extra-curricular	
Medical Technology 2 – an organ system-based approach For TU/e students in the Master-pr course only	TUM rogramme of M	MSc Iechanica	5 I Enginee	Hybrid ring this course cou	Summer term nts as extra-curricular	
Machine Elements	TUM	BSc	3	Online, time- independent	Summer term	
For TU/e students in the Bachelor-programme of Mechanical Engineering this course counts as extra-curricular course only						
Multidisciplinary Design Optimization	TUM	MSc	5	Hybrid	19 Apr '24 – 2 Aug '24	
For TU/e students in the Master-pr course only	ogramme of N	lechanica	l Enginee	ring this course cou	nts as extra-curricular	
Tribology Matters – Scientific Analysis of Technologies for Sustainable Drivetrains For TU/e students in the Bachelor- curricular course only	TUM and Master-p	BSc, MSc, PhD rogramme	3 e of Mech	Online, at specific time anical Engineering t	15 April '24 – 19 Jul '24 his course counts as extra-	

Course title	Offered by	Level	ECTS	Teaching format	Teaching period	
Fluid Dynamics	CTU	BSc	5	Online, at specific time	25 Sep '23 – 14 Jan '24	
For TU/e students in the Master-programme of Mechanical Engineering this course counts as extra-curricular course only						
Mechanical and Hydraulical Transmissions For TU/e students in the Master-p course only	CTU rogramme of M	MSc 1echanica	6 I Enginee	Blended ring this course cour	25 Sep '23 – 14 Jan '24 nts as extra-curricular	
Quality	CTU	BSc, MSc	3	Blended	19 Feb '24 – 26 May '24	
For TU/e students in the Master-programme of Mechanical Engineering this course counts as extra-curricular course only						

# **On-site exchange possibilities**

Interested in a course at our partner institution, but rather going for real-life mobility? Consider an Erasmus exchange. You can find more information about the Mechanical Engineering study programmes of our partners below. If you want to know more about an Erasmus exchange, contact your university's International Office to ask about the possibilities.

**Technical University of Munich (TUM)** 

**BSc Mechanical Engineering MSc Mechanical Engineering** 

**Technical University of Denmark (DTU)** Department of Mechanical Engineering **BSc, BEng and MSc programmes** 

Eindhoven University of Technology (TU/e)

**Department of Mechanical Engineering BSc Mechanical Engineering MSc Mechanical Engineering** 

École Polytechnique (I'X) **Department of Mechanics** 

Czech Technical University in Prague (CTU) **Faculty of Mechanical Engineering BSc Mechanical Engineering and several MSc programmes** 

Tallinn University of Technology (TalTech) Department of Mechanical and Industrial Engineering **MSc Mechatronics** 













