

FACULTY OF

Mechanical Engineering and Design

- Courses from the Bachelor's degree programme **MECHANICAL ENGINEERING**
- Courses from the Bachelor's degree programme **MECHATRONICS**
- Courses from the Bachelor's degree programme **VEHICLE ENGINEERING/ AVIATION ENGINEERING**
- Courses from the Bachelor's degree programme **FASHION ENGINEERING**
- Master's degree programme of **INDUSTRIAL ENGINEERING AND MANAGEMENT**
- Master's degree programme of **MECHANICAL ENGINEERING**
- Master's degree programme of **MECHATRONICS**
- Courses from the Master's degree programme **FASHION INNOVATION TECHNOLOGIES**
- Courses from the Master's degree programme **VEHICLE ENGINEERING**

***Important note!**

Some courses will be offered only if a sufficient number of students register for the course.

Courses from the Bachelor's degree programme MECHANICAL ENGINEERING

1st semester (autumn)

Course code	Course title	ECTS Credits
T210B198	Engineering Drawing	6
T210B193	Introduction to Mechanical Engineering	6

2nd semester (spring)

Course code	Course title	ECTS Credits
P190B231	Theoretical Mechanics	6
T450B103	Materials Science and Engineering	6

3rd semester (autumn)

Course code	Course title	ECTS Credits
T210B199	Computer-Aided Design	6
P190B504	Mechanics of Materials	6
T130B178	Technological Machines and Tools	6

4th semester (spring)

T200B109	Applied Thermodynamics and Hydromechanics	6
T170B168	Fundamentals of Electrotechnic and Electronic	6
T210B147	Structural Integrity	6
T210B200	Machine Dynamics	6

5th semester (autumn)

Course code	Course title	ECTS Credits
T210B116	Machine Elements	9
T130B012	Manufacturing Engineering	6
T110B405	Measurements	6
P240B100	Thermal Hydromechanics	6

7th semester (autumn)

Course code	Course title	ECTS Credits
T210B116	Computer Numerical Control Programming	6
T130B012	Quality Assurance	6
T210B436	Fluid Power Systems	3

Courses from the Bachelor's degree programme MECHATRONICS

2nd semester (spring)

Course code	Course title	ECTS Credits
P190B231	Theoretical Mechanics	6
T210B001	Fundamentals of Mechatronics	3
T450B102	Materials Engineering	3

3rd semester (autumn)

Course code	Course title	ECTS Credits
T210B199	Computer-Aided Design	6
P190B504	Mechanics of Materials	6
T450B112	Technologies of Structural Materials	6

4th semester (spring)

T170B168	Fundamentals of Electrotechnic and Electronic	6
T210B147	Structural Integrity	6
T200B109	Applied Thermodynamics and Fluid Mechanics	6
T120B008	Signals Theory	3
T125B005	Computer-aided Devices Control Systems	3

5th semester (autumn)

Course code	Course title	ECTS Credits
T210B403	Machine Elements	6
T130B012	Manufacturing Engineering	6
T110B405	Measurements	6

6th semester (spring)

T120B007	Microprocessor Technique	6
T125B001	Automatic Control Fundamentals	6
S190B121	Project Management	6

7th semester (autumn)

Course code	Course title	ECTS Credits
T210B024	Mechatronic System Design	3
T210B133	Technologies of Mechatronic Systems	9
T210B424	Quality Assurance	6

Courses from the Bachelor's degree programme FASHION ENGINEERING

Course code	Course title	ECTS Credits	Semester
T150B174	Clothing Special Technologies	6	autumn

T150B194	Workshop of Fashion Product	6	autumn
T150B144	Computed Clothing Manufacturing	6	autumn
T150B144	International Textile and Clothing Industry	6	autumn
T470B133	Textile Technology	9	autumn
T150B189	Computer-aided Design of Clothing 1	6	spring
T470B131	Design and Technology of Knits	6	spring
T150B175	Functional Clothing	6	spring

Courses from the Bachelor's degree programme
VEHICLE ENGINEERING/ AVIATION ENGINEERING

Course code	Course title	ECTS	Semester
T280B101	Sustainable Transport: Technologies, Environment and Interaction	6	autumn
T210B436	Fluid Power Systems	3	autumn
T280B104	Road Vehicles and Methodology of their Design	6	autumn
T130B028	Machining Technologies of Means and their Components of Locomotion	6	autumn
T280B111	Traffic Engineering and Safety	6	autumn
T310B107	Fundamentals of Aerodynamics	6	autumn
T310B109	Aviation Materials	6	autumn
T310B108	Aviation Engines	6	autumn
T310B100	Human Factors in Aviation	3	autumn
T280B613	Road Vehicles Theory	6	spring
T310B106	Types, Constructions and Systems of Aircrafts	6	spring
T310B113	Aerodynamics of Aircrafts and Dynamics of Flight	9	spring

DISCRETE COURSES

Course code	Course title	ECTS	Semester
W240B001	Methods of Prototyping	6	autumn
W240B107	Bionics and Biomimicry in Design	6	autumn

**Courses from the Master's degree programme
Fashion Innovation Technologies**

Course code	Course title	ECTS Credits	Semester
T150M121	Smart Textiles and Wearable Technologies	6	autumn
T150M121	Sustainable Fashion Technology		autumn
T00M161	Research Project	6	autumn/spring
T150M147	Fashion Product Exploitation Modelling	6	spring
T470M125	Advanced and Specialized Textile Processing	6	spring
W230M010	Innovations in Fashion Design	6	spring

**Courses from the Master's degree programme
INDUSTRIAL ENGINEERING AND MANAGEMENT**

1st semester (autumn)

T130M008	Industrial Production	6
S181M004	Managerial Finance	6
T130M009	Manufacturing Planning and Control	6
T130M100	Methods of Research and Quality Control	6

2nd semester (spring)

T210M134	Industrial Maintenance	6
S191M013	Industrial Marketing	6
T130M016	Quality Management	6

3rd semester (spring)

T130M125	International Industry and Business	6
T130M833	Computer Integrated Manufacturing	6
S190M102	Engineering Projects Management	6

**Courses from the Master's degree programme
MECHANICAL ENGINEERING**

S190M102	Engineering Projects Management	6	autumn
T130M833	Computer Integrated Manufacturing	6	autumn
S190M102	Mechanical Vibrations	6	autumn
T210M134	Industrial Maintenance	6	spring
T210M110	Dynamics of Mechatronic Systems	6	spring

**Courses from the Master's degree programme
MECHATRONICS**

Course ode	Course title	ECTS redits	Semester
T130M833	Computer Integrated Manufacturing	6	autumn
T125M125	Robotics	6	autumn
T210M435	Mechanical Vibrations	6	autumn
T210M153	Adaptive Mechanics and Mechatronic Systems	6	autumn
T210M009	Finite Element Method	6	autumn
T210M032	Integrated CAD/CAE/CAM Systems	6	spring
T125M262	Computer-Aided Control of Technological Equipment	6	spring

Courses from the Master's degree programme
VEHICLE ENGINEERING

Course ode	Course title	ECTS credits	Semester
T280M634	Design of Vehicles	6	autumn
S190M102	Engineering Projects Management	6	autumn
T280M004	Quality in Transport	6	autumn
T280M633	Safety of Vehicles and Road	6	autumn
T280M107	Unmanned Ground Vehicles Systems	6	autumn
T280M002	Vehicle Dynamics, Interaction and Energy Efficiency	6	autumn