

Bachelor of Engineering in MECHANICAL ENGINEERING

Specialization in SUSTAINABLE DESIGN ENGINEERING

PMECEK26

Structure of studies	ECTS
Engineering Basic Competence	75
Mechanical Engineering Core Competence	60
Design Skills	30
Optional studies	30
Practical training	30
Thesis	15
Sum	240

1st Academic Year

Spring 2026			Autumn 2026		
MON-THU	Engineering Tools 1	15	Summer 2026	Optional studies	
	Introduction to Mathematical Sciences	5		Occupational Safety	1
	Physics	5		Hot work safety education and training	1
	ICT-tools and CAD Basics	5			
TUE-FRI	Studying and Communication Skills	15	Basic Training	10	
	Finnish A1	5		Engineering Tools 2	15
	English Professional Skills B2	5		Engineering Precalculus	5
	Introduction to Higher Education Studies	4		Finnish A2	5
	Fundamentals of Sustainable Development	1		Data analysis and programming	5

2nd Academic Year

Spring 2027		Autumn 2027																	
MON-THU	<table><tr><td>Mechanical Engineering 1</td><td>15</td></tr><tr><td>Technical Drawing and 3D Modelling</td><td>5</td></tr><tr><td>Material science for mechanical engineering</td><td>5</td></tr><tr><td>Production Technology</td><td>5</td></tr></table>	Mechanical Engineering 1	15	Technical Drawing and 3D Modelling	5	Material science for mechanical engineering	5	Production Technology	5	Summer 2027	<table><tr><td>Design Skills 1</td><td>15</td></tr><tr><td>User-centered Design Approach</td><td>5</td></tr><tr><td>Visualization and Ideation</td><td>5</td></tr><tr><td>Designer CAD 1</td><td>5</td></tr></table>	Design Skills 1	15	User-centered Design Approach	5	Visualization and Ideation	5	Designer CAD 1	5
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TUE-FRI	<table><tr><td>Engineering Tools 3</td><td>15</td></tr><tr><td>SUSTIS Sustainable Development Project</td><td>3</td></tr><tr><td>Introduction to Life Cycle Assessment</td><td>2</td></tr><tr><td>Heat and Electricity</td><td>5</td></tr><tr><td>Calculus</td><td>5</td></tr></table>	Engineering Tools 3	15	SUSTIS Sustainable Development Project	3	Introduction to Life Cycle Assessment	2	Heat and Electricity	5	Calculus	5	<table><tr><td>Field-Specific Training</td><td>10</td></tr></table>	Field-Specific Training	10	<table><tr><td colspan="2">Optional studies, includes Finnish language</td></tr></table>	Optional studies, includes Finnish language			
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Optional studies, includes Finnish language																			

3rd Academic Year

Spring 2028			Autumn 2028		
MON-THU	Mechanical Engineering 2	15	Summer 2028	Mechanical Engineering 3	15
	Technical product documentation	5		Additive Manufacturing	5
	Basics of industrial automation	5		Design of Machine Elements	5
	Engineering Mechanics	5		Strength of Materials	5
TUE-FRI	Project and Research Skills	15	Professional Training	10	Optional studies, includes Finnish language
	Innovation project	10			
		Research Methods	5		

4th Academic Year

Spring 2029			Autumn 2029		
Thesis			15		
TUE-FRI	Design Skills 2		15		Summer 2029
	Service Design		5		
	Design for Circular Economy		5		
	Designer CAD 2		5		
			Professional Training (if left)		
			Mechanical Engineering and Design		
			Co-design and -engineering Project		15