

Course description

Course code: MAP18MO / MAP18MO01

Course name: Engine Technology / Engine Technology

Extent of studies: 5 ECTS

Recommended Progression of Studies: 2nd and 3rd year

Prerequisites: Mechanics, Hydromechanics and thermal physics, Chemistry

Course-specific Competences (matrix): Basic technical skills
Engine technics
Numerical calculation skills
Cross disciplinary skills

Language of instruction: Swedish

Courses included in the Study Module: Engine Technology, Engine Technical Laboratory Work, Machine Technical Laboratory Work

Administering Degree Programme: Degree Programme in Mechanical and Production Engineering

Made by:	Checked by:	Approved by:	Valid in curriculum
Rinka 02.04.2018	HS 3.4.2018	HS 3.4.2018	2018

Course-specific competences

Course code: MAP18MO01

Course name: Engine Tehnology

Competences

Criteria for Assessment

	1	3	5
Basic technical skills	Knows the different types of engines and their working principles	Understands how different components affect engine performance.	Able to independently choose and plan different engine technology applications.
Engine technics	Knows the main components of the internal combustion engine. Can explain gas change and combustion processes.	Understands how different main components of the internal combustion engine affect performance and emissions.	Able to independently choose and design solutions that gives desired effect on the internal combustion engine performance.
Numerical calculation skills	Knows the different thermodynamic processes, properties and calculations.	Able to calculate and select engine components.	Able to independently calculate mass forces, torque and vibration in the internal combustion engine.
Cross disciplinary skills	Knows the common applications and their specific criteria's in context of the internal combustion engine.	Able to discuss topics regarding engine technical terms orally and in writing.	Able to argue and motivate different technical choices in context of internal combustion engines and solutions in the different applications.

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