

## Course description

**Course code:** MAP18ET / MAP18ET04

**Course name:** Operation and Process Economics

**Extent of studies:** 3 ECTS

**Recommended Progression of Studies:** Study year 3

**Prerequisites:** Basic Business Economy, Engine Technology, Control Engineering, Manufacturing Technology, Automation Laboratory Work.

**Course-specific Competences (matrix):** See matrix

**Language of instruction:** Swedish

**Courses included in the Study Module:** Applied Thermodynamics, Flow and Heat Transport, Energy Laboratory Work.

**Administering Degree Programme:** Mechanical and Production Engineering

# Course-specific competences

Course code: MAP18ET04

Course name: Operation and Process Economics

## Competences

## Criteria for Assessment

	1	3	5
Analytical and logical competence	Recognizes the importance of a good operation and process economy in both technical and economic contexts. The student understands concepts such as efficiency, productivity, power supply and profitability.	Can describe what a trouble-free and efficient process is. Can also describe what a process, which is characterized by disturbances, uncertain operation, service breaks in a technical and economic perspective, is and what consequences such has.	Can present basic calculations in a technical and financial sense, demonstrating what operational disturbances, downtime and operational shutdown are in a technical and economic context.
Intrapreneurial and entrepreneurial competence	Realizes the importance of transactions, activities and processes forming a chain that will work in a technical and financial context, in the business context.	Can describe what efficiency, productivity as well as technical and economic profitability mean in short and long term, also taking into account the user's perspective.	Can explain, document and present in his/her own business or in another's business what good operation and process economy means.
Multi talent competence	Recognizes the importance of interaction between users, technology, process technology, process management and profitability concepts.	Can describe simple connections between good operation and profitability, as well as between profitability and poor operation, downtime, shutdown, process run-off, and the start of a suspended process in its context.	Can explain, calculate, document and present savings and/or non-revenue in terms of operational and process disruptions.
International competence	Understands that operation economics and process economics are subject areas to be considered in their context, industry conditions, operating conditions and requirements and legality conditions.	Can describe two differences and two similarities in an operation and process economic context in terms of efficiency, productivity and meaning of interference.	Can explain, calculate, document and present operational and process economic calculations in two languages as well as present arguments in two languages in a B-2-B context linked to the co-actors of the business/project or the activity.
Interaction and networking competence	Realizes the importance of interaction and collaboration in a company in terms of operation and process economics. Operation and process economics is not an isolated phenomenon.	Can explain in a fundamental way the cause and effect, and present simple explanations of operation and process economics.	Can, in words and numbers, explain and present the cause, effect and consequences caused by good or bad operation and process economics in a B-2-B context linked to the co-actors of the business/project or the activity.

Made by:

Checked by:

Approved by:

Valid in curriculum

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