

**SYLLABUS**  
**STUDY YEAR 2018/2019**

# **Master Programme in Composite Materials**

**Enrollment semester Autumn  
2017**

DATE  
**2015-10-13**

REFERENCE NO.  
**12-2015**

DECISION MAKER  
**Director of Education and research**

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## Programme content and structure

120 points are required for the MSc in Materials Technology with specialisation in Composites, of which 105 must have been gained at an advanced level. The education within Materials Technology has a strong emphasis and progression in the field of composites. During the first year of the course the emphasis is on theoretical knowledge that is required for the projects that are undertaken in year two. During the first term, a course at foundation level is given in the necessary principles within organic chemistry. In the second term, students choose from several courses in the field of materials. Year two comprises one term's project work together with a finishing masters thesis work in the field of Materials Technology with an emphasis on Composites.

The mandatory courses must be completed prior the start of the master's thesis. Specific information about application and selection for master's thesis is controlled by the course coordinator department.

Swedish for beginners is offered in the education for overseas students. The course is not used in the assessment, and is read in addition to the obligatory courses.

### Credits

120 credits

### Degree

- Degree of Master of Science (120 credits) - Major; Materials Science and Engineering with specialisation Composite Materials

## Entry requirements

Bachelors degree of minimum 180 ECTS with at least 60 ECTS in the area of mechanical engineering, material science, physics or chemistry. At least 22,5 credits in Mathematics at university level is required.

Documented skills in English language.

### Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

#### Selection group

Academic: 100%

## Compulsory courses

### Materials science and Engineering, Composite materials: Compulsory courses 90 credits

Course code	Course	Cr	Level	Comment
E7009T	Degree project in Materials Technology, Master	30	Master's level	
T0024T	Multifunctional Polymer Composites; Advanced Processing and Manufacturing	7.5	Bachelor's level	
T7009T	Material Science & Engineering, project course	30	Master's level	
T7012T	Composite Materials	7.5	Master's level	
T7017T	Biocomposites	7.5	Master's level	
T7020T	Composites: Design and Numerical Methods	7.5	Master's level	

### Materials science and Engineering, Composite materials: Compulsory courses 30 credits

Selective space is 15 credits. It is mandatory to select elective courses up to the given number of credits. The given number of credits of elective courses listed must be met for degree.

Course code	Course	Cr	Level	Comment
F7027T	Applied fluid mechanics	7.5	Master's level	Selectable
T0007T	Material Selection & Eco Design	7.5	Bachelor's level	Selectable
T7002T	Materials Modeling	7.5	Master's level	
T7003T	Advanced Materials Characterisation Techniques	7.5	Master's level	Selectable
T7005T	Aerospace Materials	7.5	Master's level	Selectable
T7006T	Nanostructured Materials and Nanotechnology	7.5	Master's level	Selectable
T7010T	Polymer Science and Engineering II- Processing and Design	7.5	Master's level	

### Swedish for beginners - Not compulsory: For non scandinavian students

Course code	Course	Cr	Level	Comment
S0046P	Swedish for International Students 1	3	Bachelor's level	Selectable

## Study schedule

### Year of study 1 Enrollment semester Autumn 2017, Is offered in 2017/2018

Study-period	Course code	Course	Cr	Comment
1	S0046P	Swedish for International Students 1	3	Selectable
1	T0024T	Multifunctional Polymer Composites; Advanced Processing and Manufacturing	7.5	
1	T7012T	Composite Materials	7.5	
2	T7017T	Biocomposites	7.5	
2	T7020T	Composites: Design and Numerical Methods	7.5	
3	T7002T	Materials Modeling	7.5	
3	T7010T	Polymer Science and Engineering II- Processing and Design	7.5	
4	F7027T	Applied fluid mechanics	7.5	Selectable
4	T0007T	Material Selection & Eco Design	7.5	Selectable
4	T7003T	Advanced Materials Characterisation Techniques	7.5	Selectable
4	T7005T	Aerospace Materials	7.5	Selectable
4	T7006T	Nanostructured Materials and Nanotechnology	7.5	Selectable

### Year of study 2 Enrollment semester Autumn 2017, Is offered in 2018/2019

Study-period	Course code	Course	Cr	Comment
1	S0046P	Swedish for International Students 1	3	Selectable
1-2	T7009T	Material Science & Engineering, project course	30	
3-4	E7009T	Degree project in Materials Technology, Master	30	Entry requirements