# Studies Plan

**EDAM - Advanced Manufacturing 2019-20**

## Core courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Language Code</th>
<th>Section</th>
<th>Teacher</th>
<th>Exam</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design of experiments (a) - Fall semester</td>
<td>E</td>
<td>ENG-606(a)</td>
<td>EDRS</td>
<td>Fuerbringer</td>
<td>Project report</td>
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<tr>
<td>(Block course Fall 2019 (including a 2 days optional pre-course on Matlab))</td>
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<tr>
<td>Design of experiments (c) - Spring semester</td>
<td>E</td>
<td>ENG-606(c)</td>
<td>EDRS</td>
<td>Fuerbringer</td>
<td>Project report</td>
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<tr>
<td>(Block course Spring 2019)</td>
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<tr>
<td>Highlights in microtechnology</td>
<td>E</td>
<td>MICRO-607</td>
<td>EDRS</td>
<td>Giovannini</td>
<td>Written</td>
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<tr>
<td>(Next time June 1-12, 2020)</td>
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<td></td>
<td></td>
<td>Various lecturers</td>
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<tr>
<td>Product lifecycle management - concepts methods and tools</td>
<td>E</td>
<td>MGT-707</td>
<td>EDRS</td>
<td>Kyritsis</td>
<td>Oral presentation</td>
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<tr>
<td>(Next time: Fall 2019)</td>
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### Other doctoral courses (EDOC)

- **3D Printing with light**
  - (Next time Spring 2020 to be confirmed)
  - E MICRO-722 EDOPO Moser Psaltis Oral 1
- **Advanced experimental methods in condensed matter and nanophysics**
  - (Next time: Spring (Block course) (Stuttgart - Germany))
  - E PHYS-630 EDPY Kern Oral 2
- **Advances in Contact Mechanics**
  - (Next time: Spring 2020)
  - E ME-623 EDME Molinari Oral presentation 2
- **Fusion and industrial plasma technologies**
  - (Next time: Spring 2021)
  - E PHYS-632 EDPY Alberti Bruzzone Duval Fasel Hogge Howling Martin Tran Oral 4
- **High pressure in chemical kinetics and equilibria**
  - (Next time: December 2019)
  - E CH-617 EDCH Laurenczy Project report 2
- **IMT Distinguished Lecture Series**
  - (From 11.02 to 2.12.2019. SV1717 (live) & MC B0 302 (video))
  - E MICRO-626 EDMI Carrara Quack Shea Oral 1
- **Laser Materials Processing**
  - (Next time: 2019-2020)
  - E MSE-662 EDMX Hoffmann Leinenbach Wasmer Oral 2
- **Mathematical models in supply chain management**
  - E MGT-602 EDMT Seifert Written 4
- **Microstructuring of glass**
  - (Next time in Spring 2021)
  - E MICRO-707 EDMI Gija Parashar Oral 1

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C: Courses, E: Exercise, P: Pratic courses, *: option courses / F: French courses, D: Deutsch courses, E: English Courses / Sum: Summer, Win: Winter
Modeling of advanced composites: processing and mechanical properties

E  MSE-710  EDMX  Hôte(s) académiques(s)  Multiple 1

Modern photovoltaic technologies
(Spring 2020 to be confirmed)

E  PHYS-609  EDPO  Haug  Nüesch  Romanyuk  Oral presentation 2

MOOC: Micro and Nanofabrication (MEMS)
(September 18 to November 16, 2019)

E  MICRO-621  EDMI  Brugger  Gijs  Oral 1

Nanofabrication with focused electron and ion beams
(Next time: August 2019)

E  MSE-619  EDMX  Hoffmann  Ulke  Multiple 2

Optimal control
(Every two years. Next time: Spring 2020)

E  EE-715  EDEE  Faulwasser  Project report 4

Powder Characterisation and Dispersion

E  MSE-709  EDMX  Bowen  Written 1

Scaling in MEMS
(August 20 & 21, 2019)

E  MICRO-606  EDMI  Renaud  Shea  Oral presentation 1

Science and technology of UV-induced polymerization

E  MSE-703  EDMX  Leterrier  Nouzille  Sangermano  Term paper 1

Soft Microsystems Processing and Devices
(Next time in September 2020)

E  MICRO-618  EDMI  Briand  Brugger  Lacour  Leterrier  Shea  Oral 2

Ultrafast phenomena
(Next time: Fall)

E  PHYS-724  EDPY  Barillot  Chergui  Oral presentation 4

Using Mathematica to analyse and model experimental data
(Next time: Spring (Block course))

E  PHYS-625  EDPY  Stadelmann  Multiple 2

Master courses ()

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<tbody>
<tr>
<td>Manufacturing systems and supply chain dynamics</td>
<td>MICRO-448</td>
<td>MT</td>
<td>Filliger Gallay</td>
<td>Oral</td>
<td>3</td>
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