**Highlights in microtechnology**

**Giovannini Marcella, Various lecturers**

**Cursus**

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<th>Sem.</th>
<th>Type</th>
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<td>Manufacturing</td>
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<tr>
<td>Microsystèmes et microélectronique</td>
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<td>Robotique, contrôle et systèmes intelligents</td>
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**Language** English  
**Credits** 4  
**Session** Exam  
**Workload** 120h  
**Hours** 56  
**Lecture** 42  
**Practical work** 14  
**Number of positions** 22

**Frequency**

Every year

**Remarque**

Next time June 1-12, 2020

**Summary**

The course offers 10 intensive days of lectures and practicals on various topics at the hearth of microtechnology. It is articulated on two thematic weeks: "general methods for microtechnology" and a second topic changing every year.

**Content**

The course include lectures and laboratories on the following subjects: Micro-Optics, MEMS, 3D micro-machining, Microrobotics, Nanomaterials, Self-assembly processes, AFM, SEM, TEM... Other subjects are treated, which change every year. Each lecture lasts 2 hours and is given by a different professor. Students may choose 2 laboratories out of 5, each one lasting two afternoons. In addition, shorter workshops are organized on micromachining, microrobotic, microassembly and microactuators.  
Two visits to High-Tech companies are organized.

**Note**

The course offers high-specialized lectures in the mornings, and hands-on experiences or visits to high-tech companies in the afternoons. 
A maximum of 30 students is accepted for the course. This number is set by the laboratories capacities: 6 students per laboratory.

**Learning Prerequisites**

**Recommended courses**

Master in Microtechnology or a related topic.

**Resources**

**Websites**

- [http://phd.epfl.ch/page83590.html](http://phd.epfl.ch/page83590.html)