

## Studies Plan

### EDMI - Microsystems and Microelectronics 2023-24

#### Core courses

Courses	Language Code	Section	Teacher	Exam	Credit
<b>Additive Manufacturing of Metals and Alloys</b>					
E	MSE-666	EDMX	Leinenbach Logé	Oral presentation	2
<b>Advanced III-Nitride Semiconductor Devices</b> (Students are required to have taken semiconductor classes (EE-557, PHYS-433 or an equivalent) / Next time: Spring 2025)					
E	EE-627	EDEE	Grandjean Matioli	Oral presentation	3
<b>Advanced micro-/nano- manufacturing</b> (June 19-23, 2023)					
E	MICRO-632	EDAM	Various lecturers	Written	2
<b>Advanced topics in micro- and nanomanufacturing: top-down meets bottom-up</b> (Next time in Spring 2025)					
E	MICRO-724	EDMI	Brugger Böhringer Mastrangeli Perez-Murano	Multiple	2
<b>Design and Optimization of Internet-of-Things Systems</b> (Next time: Fall 2024)					
E	EE-733	EDEE	Aminian Atienza Alonso Burg	Oral presentation	4
<b>Electrochemical nano-bio-sensing and bio/CMOS interfaces</b> (June 10-14, 2024)					
E	MICRO-614	EDMI	Carrara	Project report	1
<b>Energy Autonomous Wireless Smart Systems</b> (April 8 to 12, 2024)					
E	MICRO-617	EDMI	Burg Dehollain Maloberti Skrivervik	Multiple	3
<b>Laser Materials Processing</b>					
E	MSE-662	EDMX	Hoffmann Leinenbach	Oral	2
<b>Machine Learning for Engineers</b> (Next time: Fall 2023)					
E	EE-613	EDEE	Calinon Canévet Odobez Villamizar	Multiple	4
<b>Microfluidics for lab-on-a-chip</b> (Next time: May 22-24, 2024)					
E	MICRO-706	EDMI	Le Gac de Malsche	Term paper	1
<b>Micro-magnetic field sensors and actuators</b> (June 11th to 13th, 2024)					
E	MICRO-602	EDMI	Boero	Oral	1
<b>Modelling micro-/nano- field effect electron devices</b> (May 21, 24, 28 & 31 from 10h15 to 12h / June 4 from 10h15 to 12h / June 7 from 10h15 to 12h and 14h15 to 16h)					
E	MICRO-623	EDMI	Sallese	Written	1
<b>MOOC: Micro and Nanofabrication (MEMS)</b> (September 18 to November 19, 2023 - Online course (self-paced))					
E	MICRO-621	EDMI	Brugger Gijs	Oral	1

**Nanoscale MOSFETs and beyond CMOS devices***(Next time in Autumn 2025)*

E	MICRO-611	EDMI	Ionescu Zota	Oral	1
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**Optical MEMS and micro-optics***(November 14th to 17th, 2023 (Microcity, Neuchatel))*

E	MICRO-605	EDMI	Ataman	Written	1
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**Research seminars in Electrical Engineering - FALL***(Next time: Fall 2024)*

E	EE-625(a)	EDEE	Choo Fleury Matioli	Oral presentation	1
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**Research seminars in Electrical Engineering - SPRING***(Next time: Spring 2024)*

E	EE-625(b)	EDEE	Choo Fleury Matioli	Oral presentation	1
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**Scaling in MEMS***(4-day course - from August 28 to August 31, 2023. Room Microcity MC B1 273)*

E	MICRO-606	EDMI	Shea	Oral presentation	1
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**Soft Microsystems Processing and Devices***(Next edition in February 2026 (exam in March 2026))*

E	MICRO-618	EDMI	Briand Brugger Lacour Leterrier Shea Subramanian	Multiple	2
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**Thin film and small scale mechanics***(Next time: November 7-10, 2023)*

E	MSE-669	EDMX	Michler Schwiedrzik	Written	2
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**Wearables and implantables for personalized and preventive healthcare***(February 5-9, 2024)*

E	MICRO-624	EDMI	Ionescu Locca Tevaeearai Stahel	Written	2
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