COURSE CONTENT

1st Semester	2nd Semester
Review of electronic fundamentals	Electron devices
Signal and systems	Propagation technologies
C and C++ programming	Analog IC design
Material sciences	Modeling and simulation of MEMS (elective) (micro and nano technologies option)
Analog circuits for sensors and receivers	RF circuits (elective) (wireless communication option)
Optoelectronic and photonic	Lab, signal analysis (elective) (wireless communication option)
Introduction to FPGA	Lab, design of a MEMS device (elective) (micro and nano technologies option)
Discrete time electronics	Lab, research project (elective)
Introduction to communication systems (wireless communication option)	
Principles of MEMS sensors and actuators (Micro and nano technologies option)	Project or internship (3 months)
French as a foreign language 1	French as a foreign language 2
	French language immersion
Corporate finance, international marketing	
Intercultural management	Management seminars

2nd Year

1st Semester (8 technical courses to be select among)	
Wireless communication option	**Micro and nano technologies option**
Advanced electron devices	
Advanced microfabrication technologies for ICs end MEMS	
Optoelectronic and photonic applications	
Antennas and propagation	
RF and microwave circuits	Topical MEMS Design
RF Front-End	Nano & bio-chemical technologies and devices
RF and millimeter wave circuits: from design to layout	Energy harvesting for autonomous sensor
Electromagnetic modeling for circuits and packages	Materials and nano materials
Test and measurement	Instrumentation and mesures
French as a foreign Language 4	
International project management	
Innovation management	
2nd Semester	
Final internship in France or abroad, and master thesis (6 months)	