



**FIRST YEAR**

**Fall semester**

Physics	6
Mathematics	6
Materials chemistry	6
Economics, business & law	6
Metric geometry & representation systems	6

**SECOND YEAR**

**Fall semester**

Differential geometry & differential equations	6
Urbanism	6
Strength of materials & structures	6
Probability & statistics	6
Mobility & transport networks	6

**THIRD YEAR**

**Fall semester**

Soil mechanics	6
Numerical modelling	6
Structural analysis	6
Structural technology I	6
Surface & groundwater hydrology	6

**FOURTH YEAR**

**Fall semester**

Optional subjects	6
Optional subjects	6
Optional subjects	6
Optional subjects	6
Optional subjects	6

**Spring semester**

Algebra & geometry	6
Geology	6
Rational mechanics	6
Calculus	6
Construction materials	6

**Spring semester**

Mathematical models of physics	6
Hydraulics & hydrology	6
Geomatics & geographic information	6
Environmental engineering	6
Roads & railways	6

**Spring semester**

Communication techniques	6
Structural technology II	6
Maritime & port engineering	6
Geotechnical & geological engineering	6
Construction procedures & electrotechnics	6

**Spring semester**

Optional subjects	6
Optional subjects	6
Projects & business organisation	6
Bachelor's Final Thesis	12

**OPTIONAL SUBJECTS**

**Fall semester**

Risk assessment for natural hazards
Instrumentation and remote sensing
Machine learning and data science
Programming for science and engineering
Sustainability, social and environmental impact

**Spring semester**

Software tools for civil engineering
Urban mobility and decision support
Digital twins and augmented reality
Entrepreneurship and innovation

Basic sciences  
Engineering applied sciences

Basic technologies  
Engineering tools  
Transport engineering

Structural analysis and technologies  
Water cycle engineering  
Geotechnical engineering

Optional subjects related to civil engineering  
Project and construction of public works and infrastructures