# Studies Plan

## Génie civil 2023-24

### Master project

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### Summer workshop

**PENS-491**  
GC  
**Profs divers**  
40h  
Win  
During the semester  
4

**HSS : Introduction to project**  
**SHS**  
Win  
3

**HSS : Project**  
**SHS**  
Sum  
3

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### Pré-étude obligatoire

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### Group "Optional courses"

#### Advanced composites in engineering structures

**CIVIL-443**  
**AR**  
Vassilopoulos  
2h  
1h  
Win  
Oral  
3

#### Advanced design of concrete structures

**CIVIL-414**  
**GC**  
Fernandez-Ordoñez Hernandez  
1h  
2h  
Sum  
During the semester  
3

#### Composites design and innovation

**CIVIL-464**  
**GC**  
Molinari  
Vassilopoulos  
2h  
1h  
Sum  
Oral  
3

#### Computational geomechanics

**CIVIL-423**  
**GC**  
Lecampion  
2h  
3h  
Win  
During the semester  
5

#### Computational systems thinking for sustainable eng.

**CIVIL-534**  
**GC**  
Sonata  
2h  
1h  
Sum  
During the semester  
4

#### Concrete bridges

**CIVIL-430**  
**GC**  
Muttoni  
2h  
1h  
Win  
Oral  
3

#### Construction law for engineers I

**ENG-470**  
**GC**  
Di Cicco  
Mouvet Müller  
2h  
Win  
Written  
2

#### Construction law for engineers II

**ENG-471**  
**GC**  
Di Cicco  
Müller  
2h  
Sum  
Oral  
2

#### Continuum mechanics and applications

**CIVIL-425**  
**GC**  
Lecampion  
Molinari  
3h  
2h  
Sum  
Oral  
6

#### Dam engineering

**CIVIL-411**  
**GC**  
De Almeida  
Manso  
Mouvet  
3h  
Win  
Oral  
3

#### Decision-aid methodologies in transportation

**CIVIL-557**  
**GC**  
Paschalidis  
Torres Duran  
2h  
2h  
Sum  
Oral  
4

#### Deep learning for autonomous vehicles

**CIVIL-459**  
**GC**  
Alahi  
2h  
4h  
Sum  
During the semester  
6

#### Energy geostuctures

**CIVIL-444**  
**GC**  
Laloui  
2h  
1h  
Sum  
During the semester  
4

#### Engineering geology for geo-energy

**CIVIL-428**  
**GC**  
Nussbaum  
2h  
1h  
Sum  
During the semester  
3

#### Engineering of existing structures

**CIVIL-511**  
**GC**  
Denarié  
Nussbaumer  
3h  
1h  
Win  
Oral  
4

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