

# Master thesis civil engineering

## Titulaires

Arnaud DERAEMAER (Coordonnateur) et Danny VAN HEMELRIJCK

## Mnémonique du cours

MEMO-H501

## Crédits ECTS

24 crédits

## Langue(s) d'enseignement

Anglais

## Période du cours

Année académique

## Campus

Solbosch

## Contenu du cours

The master thesis will be performed during the whole year in collaboration with the supervisor.

## Objectifs (et/ou acquis d'apprentissages spécifiques)

The Master's thesis consists of a personal and original manuscript demonstrating a student's ability to identify scientific or technological issues and to mobilize his/her knowledge, skills and competences into a logical and coherent scientific methodology.

The work can consist in either exploratory research (new problem little known), testing-out research (limits of a previously proposed method), or problem solving research (real-world problem). In the three cases, a sound scientific approach must be followed including:

- > A relevant and critical state-of-the-art, identifying existing methodologies and their advantages/shortcomings, as well as their adequateness with respect to the problem to be treated.
- > The definition of a clear and sound scientific methodology including the hypothesis adopted, the methods, models and/or experiments to be used, and the means to assess the relevance and quality of the results obtained.
- > A critical evaluation of the results obtained and a measure of success of the work performed.
- > A summary and conclusion outlining the main findings of the work and identifying the shortcomings of the work performed and the future possible improvements.

## Pré-requis et co-requis

### Cours pré-requis

CNST-H401 | Prestressed concrete | 3 crédits, CNST-H418 | Non linear modeling of materials and structures | 4 crédits, CNST-H420 | Dynamics of structures | 4 crédits, PROJ-H406 | Design project in civil engineering | 9 crédits et PROJ-H407 | Research Methods in Civil Engineering | 3 crédits

## Méthodes d'enseignement et activités d'apprentissages

The thesis supervisor shall regularly provide guidance to the student and the student shall regularly inform the supervisor of progress regarding the research. In the event of non-observance, a student or a supervisor may report this circumstance to the Dean in writing. The Dean shall subsequently come to a decision, which may lead to a change in supervisor or termination of a supervisor's duties vis-à-vis a student, and shall report this circumstance to the authorised faculty body.

## Autres renseignements

### Lieu(x) d'enseignement

Solbosch

### Contact(s)

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## Méthode(s) d'évaluation

Autre et Présentation orale

### Méthode(s) d'évaluation (complément)

The student must submit a manuscript not exceeding 60 pages (min 12pts font size) excluding annexes and defend his work through a 20 minutes oral presentation, followed by 10 minutes of questions by the jury.

### Construction de la note (en ce compris, la pondération des notes partielles)

The student must submit a manuscript not exceeding 60 pages (min 12pts font size) excluding annexes and defend his work through a 20 minutes oral presentation, followed by 10 minutes of questions by the jury.

### Langue(s) d'évaluation principale(s)

Anglais

## Programmes

Programmes proposant ce cours à l'école  
polytechnique de Bruxelles

MA-IRCN | **Master : ingénieur civil des constructions** | finalité  
Spécialisée/bloc 2

