

7.00 credits

37.5 h + 40.0 h

Q1

Teacher(s)	Bousmar Didier ;Cols Bernard ;Lateur Pierre ;Ney Laurent ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	<p>This project requires in-depth knowledge of mechanics of structures, stability of structures, reinforced concrete structures, geotechnics, loaded and free-surface hydraulics, hydraulic structures, bridges, roads, steel structures as taught in the courses of the minor in construction and in the courses LGCIV1022, LGCIV1023, LGCIV1031, LGCIV2071, LGCIV2072, LGCIV2051, LGCIV2013, LGCIV2033, LGCIV1032, LGCIV1072, LGCIV2014.</p> <p><i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i></p>
Main themes	See part "Content" hereunder
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>With reference to the AA reference framework of the "Master Civil Engineer of Constructions" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes:</p> <ul style="list-style-type: none"> • (AA1.1, AA1.2, AA1.3) • (AA2.1, AA2.2, AA2.3, AA2.4, AA2.5) • (AA4.1, AA4.2, AA4.3, AA4.4) • (AA5.1, AA5.2, AA5.3, AA5.4, AA5.5, AA5.6) • (AA6.1, AA6.2, AA6.3, AA6.4) <p>More specifically, at the end of this project, the student must be able to:</p> <ol style="list-style-type: none"> 1. Technical and engineering skills: <ul style="list-style-type: none"> • Apply the technical knowledge taught in the prerequisite courses (in particular calculation and design of structures); • Analyze a problem in all its dimensions and ask the right questions to make the right choices of design, materials, geometric shapes, execution methods, etc. ; • Design one or more technical solutions in accordance with the specifications of the project. 2. Project management / managerial skills: <ul style="list-style-type: none"> • Organize and coordinate the work of the group; • Manage new datas and make the right decisions; • Establish the schedule of the works; • Determine the appropriate mode of procurement; • Make a price calculation. 3. Social skills : <ul style="list-style-type: none"> • Communicate effectively, not only within the group but also with teachers.
Evaluation methods	<p>Evaluation will be based on:</p> <ul style="list-style-type: none"> • Participation and attendance during the sessions; • The quality of the interim and final reports; • The quality of the intermediate and final presentations; • A written and/or oral exam on the "site management" part; • An individual oral exam on all aspects of the project may be scheduled. <p>Different grades may be given to students in the same group depending on their attendance at the sessions, their answers to the questions asked during the intermediate and final defenses, their participation in the writing of the report, their individual examination, etc.</p> <p>Familiarity with all aspects of this project/course, including the more theoretical aspects of site management, is necessary for success.</p>
Teaching methods	Lectures and supervised workshops in the classroom.

<p>Content</p>	<p>IMPORTANT NOTE: IN CASE OF FORCE MAJEURE (E.G., AN EPIDEMIC), THE CONTENT, ACTIVITIES, TEACHING METHODS AND EVALUATION METHODS MAY BE ADAPTED</p> <p>This project deals with all the disciplines of civil engineering. The theme is chosen based on the data available at the time of the project, usually based on a real project, completed or in progress.</p> <p>It can be for instance:</p> <ul style="list-style-type: none"> - A concrete or steel or timber (foot)bridge; - A hydraulic engineering structure (dam, lock, ...); - An underground or urban structure (tunnel, road, metro ...); - A hydraulic structure like a water tower; - The development of a technical landfill site. <p>Volume 1 will focus on the concepts of project management and on the review of design and calculation methods. Volume 2 will focus on the project itself via workshops.</p>
<p>Inline resources</p>	<p>See MOODLE page of the course.</p>
<p>Bibliography</p>	<p>Voir page MOODLE du cours.</p>
<p>Other infos</p>	<p>One or more construction site visits may be organized.</p>
<p>Faculty or entity in charge</p>	<p>GC</p>

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Civil Engineering	GCE2M	7	LGCIV2013	