

3 credits

20.0 h

Q2

**This biannual learning is being organized in 2017-2018**

Teacher(s)	Spinewine Benoît ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	The objective of the course is to provide an introduction to current geotechnical engineering practice in offshore conditions. Over the last decades, offshore geotechnical engineering has grown up as an independent branch of geotechnical engineering due to significant differences in the scale of foundation elements dealt with but also due to the challenging soil behaviour characterization.
Aims	<p><b>Contribution of the course to the program objectives (N°)</b> AA1.1, AA1.2, AA3.1, AA6.1</p> <p><b>Specific learning outcomes of the course</b></p> <p>1 At the end of the course, the student will be able to:</p> <ul style="list-style-type: none"> <li>' Describe the current techniques of offshore site investigation and their fields of application.</li> <li>' Describe behaviour issues of offshore soils and identify potential issues.</li> <li>' Identify the most significant parameters that affect the performance of offshore foundation elements</li> <li>' Determine the capacity of foundation elements and anchors.</li> </ul> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods	Oral exam with written preparation.
Teaching methods	Lectures will be given by means of slides in classroom. Teaching material to support the learning process will be electronically available.
Content	<p>The topics covered in the lecture sessions include:</p> <ul style="list-style-type: none"> <li>• Offshore site investigation: geophysical and geotechnical methods and their interpretation.</li> <li>• Behaviour of calcareous sands, cemented soils, impact of cyclic loading.</li> <li>• Installation of suction caissons, and evaluations of their capacity.</li> <li>• Installation and capacity of anchors (suction anchors, VLA).</li> <li>• Capacity of shallow foundation, spudcans.</li> <li>• Installation of pipelines and pipeline protection.</li> </ul>
Inline resources	iCampus : LAUCE2167
Bibliography	Transparent du cours et documentation disponible en ligne.
Other infos	/
Faculty or entity in charge	GC

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Civil Engineering	GCE2M	3		