# CIVL3170 Introduction to Offshore Engineering [UG, PG]

<table>
<thead>
<tr>
<th>Credit</th>
<th>6 points</th>
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<tbody>
<tr>
<td>Availability</td>
<td>Semester 2 (see Timetable)</td>
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<tr>
<td>Old unit code</td>
<td>650.204, AMEC2550, OENA2550</td>
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## Outcomes

Students are able to describe in detail a number of different offshore facility concepts, including the advantages and disadvantages of each, and use these descriptions in a system selection process; understand the various types of fixed offshore platforms, including key design, fabrication and installation issues, as well as areas of applicability; understand general concepts of marine geology and specific types of hazards affecting marine facilities; appreciate the critical parameters that influence field development choice; understand the basics of offshore pipeline engineering; and appreciate the key design parameters and operation of drilling jack-up platforms.

## Content

This unit provides an introduction to offshore platforms engineering. It defines the key requirements for the design, fabrication, installation, pre-service and in-service performances of fixed platform systems and describes methods for offshore system selection. The unit also introduces foundation systems and the basics of jack-up platforms and pipeline engineering. It explains the main steps of structural modelling of fixed offshore platforms using one of the commercially available software packages and then focuses on modern methods of structural analysis and design for the harsh offshore environment.

## Assessment

This comprises compulsory weekly tutorials, marked assignments, a modelling project in the computer laboratory and a final examination. Final unit marks may be modified in accordance with Faculty policy (see [http://www.ecm.uwa.edu.au/forstudents/assess](http://www.ecm.uwa.edu.au/forstudents/assess)).

Supplementary assessment is not available in this unit except in the case of a bachelor's pass degree student who has obtained a mark of 45 to 49 and is currently enrolled in this unit, and it is the only remaining unit that the student must pass in order to complete the course.

## Unit Coordinator(s)

Assistant Professor Mehrdad Kimiaei

## Location

UWA (Crawley)

## Mode

on-campus

## Unit Rules

**Incompatibility:** OENA2550 Introduction to Offshore Platforms and Ships

**Contact hours**—52 (lectures: 39 hrs; tutorials: 13 hrs)

## Unit web page


[Some unit web pages are still under construction and will be available in 2011.]

## Recommended reading


Beil, Y. *Pipelines and Risers*: Elsevier 2001


The availability of units in Semester 1, 2, etc. was correct at the time of going to press but may be subject to change.

Assistance with study skills, including English language skills, is available free of charge from Student Services for all enrolled students (see [http://www.studentservices.uwa.edu.au/ss/teaching](http://www.studentservices.uwa.edu.au/ss/teaching)). Student Services location: Second Floor, South Wing, Guild Village; telephone: 6488 2423.

Books and other materials wherever listed may be subject to change. Book lists relating to 'Preliminary Reading', 'Recommended Reading' and 'Textbooks' are, in most cases, available at the University Co-operative Bookshop (from early January) and appropriate administrative offices for students to consult. For first-year units the Bookshop will endeavour to make available photocopies of book lists for individual units. Books marked with an asterisk (*) are available in paperback.

CRICOS Provider Code: 00126G
Last updated 09 Aug 2010 10:05