UNIT OUTLINE

Coastal and Offshore Engineering (CIVL4130)

Semester 1, 2009

Aims: The objective of this unit is to acquire fundamental knowledge on wave theories and to develop the ability to apply the overall knowledge of wave theories, fluid mechanics and hydraulics to solve a wide range of coastal and offshore engineering problems. In particular, students are expected to develop a good understanding on how fundamental knowledge is applied to solving practical engineering problems and ability to apply basic fluid mechanics principals to analyse coastal and offshore engineering problems, and to develop self-leaning skills.

Unit description: This is a single semester unit. It covers fundamental knowledge about wave theories and applications of fluid mechanics knowledge to the design of coastal and offshore structures. The topics covered in this unit include wave mechanics, wave forecasts, ocean currents, wave forces on offshore and coastal structures, nearshore processes, dynamics of sediment transports, breakwater designs, local scour around offshore structures and pipelines.

Timetabling: Coastal and Offshore Engineering is a single-semester subject. The timetable provides three hours per week for lectures and two hours for tutorials. The venues and time of lectures and tutorials are as advised in the timetable that is available on the UWA web site.

Textbooks: The unit does not have an assigned text book. However relevant references will be advised during lectures.

Assessment: Students will be assessed on the following two components:

1. Assignments
2. End of Semester Examination

The students will be assessed according to the aims of the unit set out earlier. The final mark of the unit is calculated as:

Final mark = assignment mark (total 100) × 0.30 + examination mark (total 100) × 0.70

The minimum pass mark for the unit is the total mark of 50.

It should be noted that the unit marks may be scaled in line with the Faculty's Policy on Assessment Practices and Procedures (http://www.ecm.uwa.edu.au/for/students/assess). No supplementary examinations will be available for the unit.

Assignment: Question sheets will normally be distributed every week. Some of these questions will be assessed. Assignments are required to be handed back in within
specified period of time on the assignment sheet. Late submissions subject to 20% penalty per day and no assignments will be accepted if the due date is exceeded for more than 5 days. Special considerations, however, will be granted on medical, personal or other grounds where application must be lodged with the faculty office no later than three working days after the due date for the assessment in question..

**Lecture notes:** The lecture notes and other unit-related materials such as tutorial questions and solutions are available at the unit web site: http://www.civil.uwa.edu.au/for/students/undergraduate/online_teaching_resources/semester_one/CIVL4130/

**Plagiarism:** Plagiarism is taking someone else’s thought, writing or invention and claiming it as your own. Plagiarism is regarded by the University as serious misconduct (see http://www.ecm.uwa.edu.au/for/students/plagiarism). If plagiarism of ideas, information, text or other printed material is detected in work submitted for assessment, that work will be assigned a mark of zero. The Head of School will be informed and a note kept on file.

**Appeals and Student Rights:** The Faculty Policy for Appeals can be found at http://www.ecm.uwa.edu.au/for/students/exams and the Charter of Student Rights can be found at http://www.secretariat.uwa.edu.au/home/policies/charter.