

**CB584 Special Topics In Hydraulic& Coastal St.**

**COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
CB483	5	9 – 10	2	2	0	3

**COURSE AIM**

This course is designed to provide the seniors in construction engineering program with the design criteria and construction methods of major structures and operations in rivers, estuary and coastal waters.

**COURSE WEEKLY CONTENTS**

- 1 Engineering projects for river and estuary structures.
- 2 Engineering projects for coastal structures.
- 3 Design criteria and construction of lined open channels.
- 4 Design and construction of water intake and navigation structures.
- 5 Design criteria and construction of piers for over water bridges and scour mitigation methods.
- 6 Design criteria and construction of river flow diversion structures.
- 7 Design and construction of drainage structures. + Midterm Exam
- 8 Integrated coastal zone management.
- 9 Design criteria and installation of marine pile-supported and bulkhead structures.
- 10 Design criteria and types of coastal protection works (rigid and flexible).
- 11 Construction methods of shore-connected and offshore protection structures.
- 12 Construction methods of shore-connected and offshore protection structures.
- 13 Beach nourishment techniques and equipment.
- 14 Ecological and social impacts of river and coastal construction.
- 15 Term report presentation.

**STUDENT GRADING & ASSESSMENT**

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	1 0	M A R K S		→	30
To be freely distributed among possible assessments							
8 to 12	←		2 0	M A R K S		→	20
13 to 15	←		1 0	M A R K S		→	10
16 or 17	40 Final						40
<b>Total</b>	<b>Exams</b>	<b>Assign.</b>	<b>Quizzes</b>	<b>Reports</b>	<b>Present.</b>	<b>Lab.</b>	<b>100</b>

**R E F E R E N C E S**

<b>Textbook</b>	Hydraulic Structures, Novak, Moffat, Nalluri, and Narayanan, Scientific Publishing, 2004.
<b>Other</b>	Introduction to Coastal Engineering and Management, J.W. Kamphuis, World Coastal Defense ICE design and practice guide, A. Brampton, Thomas-Telford, London, 2002.