

Title	Introduction to Offshore Engineering	Year/Semester	2016/Fall
<b>Outline</b>			
<p>Offshore Plant means that all facilities to produce, transport, and store energy media in a broad sense. In this class, We will focus on the background knowledge required to understand an offshore platform using for production, transportation, and storage of oil and gas.</p> <p>In detail, we will study about a reservoir, subsea well, subsea pipeline system, offshore structure, topside process, oil tanker and LNG carrier. . Also we will see the concept of renewable energy produced from offshore using wind, wave, tidal, current, and thermal energy.</p>			
<b>Text book</b>			
Project reports			
<b>Lecture plan</b>			
1 week	Course outline		
2 week	Offshore projects		
3 week	Installation of subsea pipeline		
4 week	Flow Assurance		
5 week	Design of subsea production system		
6 week	Offshore platforms – Fixed/Compliant/Floating		
7 week	Offshore platforms – Examples		
8 week	Midterm exam		
9 week	Structural design of offshore platform		
10 week	Floating platform (oil FPSO, LNG FPSO)		
11 week	Phase behavior for separator design		
12 week	Topside process design (Separator and Slug catcher)		
13 week	Ocean mineral resources and renewable energy		
14 week	Case studies		
15 week	Final exam		