

Title	Offshore platform FEED	Year/Semester	2016/Fall
Outline			
<p>Design of offshore platform is composed of concept selection–basic design–FEED design–detailed design, then followed by the final production design. Among them, the operation of offshore platform was mostly decided during FEED design. Therefore, it is central to perform FEED design precisely to achieve successful operation of offshore fields developments. In this course, students are required to understand the work scope of FEED design and major outcomes through the design phase. Moreover the economic analysis of the designed platform will be studied through software simulation, “Questor” .</p>			
Text book			
<ol style="list-style-type: none"> 1. Project design reports. 2. Saeid Mokhatab and William A. Poe, Handbook of Natural Gas Transmission and Processing, Second Edition 			
Lecture plan			
1 week	Overview of gas processing plant		
2 week	Design, control and maintenance of gas plant		
3 week	Cost estimation for different development concept – Offshore vs Onshore		
4 week	Cost estimation for different development concept – Methodology		
5 week	Topside process design – Major units		
6 week	Topside process design – FEED design case study		
7 week	Midterm exam		
8 week	Weight estimation – Methodology		
9 week	Weight estimation – Gas field case study		
10 week	Subsea cost estimation – Methodology		
11 week	Subsea cost estimation – Equipment cost and case study		
12 week	Questor training example 1		
13 week	Questor training example 2		
14 week	Questor training example 3		
15 week	Final exam		