Title	Offshore platform FEED	Year/Semester	2017/Fall
Outline			
Flow assurance is becoming an industrial discipline as the production of oil and gas goes deeper and remote area in offshore. The multiphase flow along with the solid deposition issues must be analyzed and resolved during both design and operation of the offshore production systems. In this course, students will learn about the theory of multiphase flow and solid deposition issues, then will have hands-on experience of resolving the problems that may encounter in offshore platforms.			
Text book			
1. Slides from industry reports.			
Lecture plan			
1 week	Introduction		
2 week	Petroleum fluids and physical properties		
3 week	Examples for physical properties of petroleum properties		
4 week	Flowlines, Piping and gathering systems		
5 week	Flowline pressure drop		
6 week	Examples for pressure drop in subsea flowline		
7 week	Midterm exam		
8 week	Multiphase flow		
9 week	Examples for understanding multiphase flow		
10 week	Solid deposition (Hydrates)		
11 week	Examples for preventing and remediating hydrate plug		
12 week	Solid deposition (Wax, Asphaltene, Scale, Corrosion)		
13 week	Examples for calculating inhibitors injection rates		
14 week	Operation of production systems		
15 week	Final exam		