



**Course Name:**

Offshore Facilities Design

<b>Course Number:</b> -	<b>Credit:</b> 3
<b>Program:</b> Graduate	<b>Course Type:</b> Technical Selective
<b>Prerequisite:</b> -	<b>Corequisite:</b> -

**Course Description (Objectives):**

The main goal of this course is to equip students with the skills needed to design offshore structures. The specific objectives include the design of platforms, pipelines, risers, and offshore terminals, covering topics such as structural concepts, hydraulic analysis, corrosion control, and maintenance. These skills prepare students to tackle challenges in designing and operating offshore facilities.

**Course Content (outline):**

- Chapter 1: Offshore Platforms Design.
- Chapter 2: Offshore Pipelines Design.
- Chapter 3: Offshore Risers Design.
- Chapter 4: Offshore Terminals Design.

**References:**

- Mohamed A. El-Reedy, 2014. Marine Structural Design Calculations, Butterworth-Heinemann.
- S. K. Chakrabarti, 2005. Handbook of Offshore Engineering, Elsevier.
- B. C. Gerwick, 2007. Construction of Marine and Offshore Structures, CRC press.
- Robert T. Hudspeth, 2006. Waves and Wave Forces on Coastal and Ocean Structures, World Scientific Publishing.
- S. Kyriakides and E. Corona, 2007. Mechanics of Offshore Pipelines, Elsevier.
- Jaswar Koto, 2016. Offshore Risers Challenges and Design Analysis Publisher: Ocean & Aerospace Research Institute.
- Charles Sparks, 2018. Fundamentals of Marine Riser Mechanics: Basic Principles and Simplified Analyses, Penn Well.