

Introduction to Oil & Gas Structures

Calendar: 5th day semester

Contact Hours: T 22,5h; TP 30,0h; OT 7,5h

Scientific Area: Mechanics and Structures

Intended learning outcomes (knowledge, skills and competences to be developed by the students): It is intended that after the attendance of this course unit, students acquire skills and competences in the subject of Oil & Gas Structures: (i) description of main onshore production units, (ii) description of main offshore production units, (iii) Concepts of Oil & Gas project, (iv) fundamentals of Construction and installation of Oil & Gas.

Syllabus: 1. Onshore production units 2. Offshore production units (FPSO, TL, SS, WHP and DHP, Subsea infrastructure) 3. Introduction to Oil & Gas project. 4. Fundamentals of Construction and installation of Oil & Gas

Evidence of the syllabus coherence with the curricular unit's intended learning outcomes: Syllabus just fit to learning outcomes exhibited by the following correspondence: 1 with i); 2 with ii); 3 with iii); 4 with iv).

References:

Petroleum Engineering Handbook. Vol III Facilities and Construction Engineering. Kenneth Arnold Editor 2007, Society of Petroleum Engineers USA.

Oil and gas production handbook. An introduction to oil and gas production. ABB oil and gas 2010. Oslo. W.L. Leffler, R. Pattarozzi, G. Sterling, Deepwater Petroleum Exploration & Production. A non-technical guide. - Penn Well.

Chen, W.-F., Saleeb, A. - Constitutive equations for engineering materials. Studies in Applied Mechanics,37. Volume 1 and 2, Elsevier, 2nd revised edition, 1994. Amsterdam.