SYLLABUS

1. Course title:

Well design

2. Code:

WD

3. Cycle of study:

2

4. ECTS credits:

7

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

No

7. Class restrictions:

No

8. Duration / semester:

1 I

9. Weekly contact hours:

9.1. Lectures: 3

9.2. Seminars: 0

9.3. Laboratory/Practice classes: 0

10. Faculty:

FMGCE Tuzla

11. Department/study program:

Well Production of Mineral Resources (WPMR) / Well Engineering (WE)

12. Lecturer:

Sanel Nuhanovic, Associate Professor

13. Lecturer's e-mail:

sanel.nuhanovic@untz.ba

14. Web site:

www.rggf.untz.ba

15. Course aims:

- familiar students with the basic fundamentals well design methods
- students will be able to understand, analyze and use a knowledge for practical problems solutions
- increase of verbal and written students communications skills
- provide a continuous work of students during the course time
- achieve a mutual communications between students and professors

16. Learning outcomes:

The students will be trained for:
- successful examination
- understanding of contents of this course for practical situations in offshore drilling and problems solutions
- professional literature using for practical problems solutions
- individual and/or team problems solving

17. Course content:

- Basic elements of well design
- Geological data and technical basis for well design
- Pore pressures and fracture gradient analyses
- Well construction and casing performances
- Casing design; Casing sizes and setting depth - program task I (PT I)
- Cementing program - program task III (PT II)
- BOP selection
- Drilling string design - program task III (PT III)
- Drilling mud program - program task IV (PT IV)
- Drilling variables program
- Drilling rig selection
- Directional wells design
- Economical variables anticipation
- Final knowledge test (KT)

18. Learning methods:

- Lectures (L)
- Seminars (S)
- Program tasks (PT)

19. Assessment methods:

L & S:
Professors make notes of students presence to L and S during the semester. Student can have max 3 unjustified absences from L and S. In the case of student justified absences, professor can enable compensation activity for those students.
Presence of L and S, continual activity and participation in the discussions will be stimulated in the final evaluation of students with max 20 points (20 % of total points number).

PT:
Individual program tasks making is mandatory. During the semester students will have 4 PT, each of them with max 10 points. Each PT will include estimates that have been subjects to specific lessons. Students are obliged to submit independently completed tasks by the end of the semester.
All the PT's brings max 40 points (40 % of total points number).

Final KT:
Aims of KT are continuous learning and easier adoption of teaching material as like as faster and better exam duty realizing.
Final KT consists of a number of questions and tasks from the completed material (incuding PT's). All the questions and tasks refer to the curriculum.
At the end of the semester will be organized final KT with max 40 points (40 % of total points number).

20. Assessment components:

- Presence of L and S .... max 20 points / min 4 points for satisfying
- PT I .... max 10 points / min 5 points for satisfying
- PT II .... max 10 points / min 5 points for satisfying
- PT III .... max 10 points / min 5 points for satisfying
- PT IV .... max 10 points / min 5 points for satisfying
- Final KT .... max 40 points / min 30 points for satisfying

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T O T A L .... max 100 points / min 54 points for satisfying

Total points < 54 .... 5 (F)
- II - 54 - 63 .... 6 (E)
- II - 64 - 73 .... 7 (D)
- II - 74 - 83 .... 8 (C)
- II - 84 - 93 .... 9 (B)
- II - > 93 .... 10 (A)

21. Required reading list:

• Bizjak, R.: ''Tehnologija bušenja sa projektovanjem'', DIT NIS-Naftagas Novi Sad, Novi Sad, 2004.
• Bernt S. Aadnoy: ''Modern well design'' (second edition), CRC Press, Taylor and Francis Group, FL, USA, 2011.
• Tomić, B.; Sušuć, A.: ''Bušotinska eksploatacija mineralnih sirovina – izgradnja bušotina'', Denfas Tuzla, Tuzla, 2007.
• Borzzati, J. at all: ''Doprinos metodici zacjevljenja bušotina'', INA – Naftaplin OUUR Bušenje Zagreb, Zagreb, 1989.
• Any other optional literature

22. Web sources:

Any literature available on the web browser whose theme is well design.

23. Applicable starting from the academic year:

2020/21

24. Adopted in the Faculty/Academy session:

2020.