



PANDIT DEENDAYAL PETROLEUM UNIVERSITY

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Recognized by the University Grants Commission u/s 2(f)

NAAC Accredited 'A' Grade, (CGPA 3.39 out of 4.00)

SPT 57732

Minutes of the Board of Studies Meeting held on 3rd June 2020 from 11:00 AM onwards. The meeting was held online platform and the following members attended the meeting

Prof. R. K. Vij (Director In-Charge-SPT, Special Invitee)
Prof. Tajinder Pal Singh, Director-Academic Affairs, PDU, Special Invitee
Prof. M. A Chowdhury, Professor Dept. Petro. Tech., Dibrugarh University); -Invited Academic Expert
Mr. A. B. Thakore, Ex-ONGC- (Invited Industry Expert, Ex-ONGC)
Prof. P Jadhav, Professor MIT Pune University (Academic Expert)
Dr. R. V. Marathe, ED and Head IRS, Ex-ONGC (Industry Expert)
Prof Ranjan Sengupta Adjunct Professor (Special Invitee)
Mr. S. S. P Singh Adjunct Professor-(Special Invitee)
Dr. Pawan Gupta Assistant Professor- (Special Invitee)
Dr. Uttam K. Bhui, Associate Professor-SPT, Member BOS
Dr. Bhawanisingh G. Desai Associate Professor-SPT, Chairman BOS

Leave of Absentees was granted to following

Dr. P. Sivakumar, Member BOS

The meeting was held to discuss the following agendas.

1. Discussion on newly designed courses of B. Tech. in Petroleum Engineering program (to be introduced from 2020-2021 Academic Session).
2. Any on the table agenda with the consent of the Chairman - BOS

Discussion on Agenda No. 1

The courses of all the 8 semester of B. Tech. Petroleum Engineering Program-was revisited and revised as per the UGC norms. The total ~~course~~ credits for the B. Tech. Petroleum Engineering program was ~~are~~ reduced from 190 (running program from the year 2017) to 164 Credits. In this connection, the courses from the earlier (year 2017) ~~introduced~~ program were looked into with inputs from all the experts considering the recent trends the professional and industrial activities related to the Petroleum Engineering domains. The members of the meeting thoroughly discussed all the issues pertaining to prepare a robust and timely program in undergraduate level (B. Tech.) of Petroleum Engineering so that after completion of the program, the students should be able to deliver the need of the future industry requirement as well as prepare themselves for further higher studies. For doing so, credit for few courses are reduced while few are converted as audited course in this program. The details are as follows

1st Year

a) Semester-I

- a. Energy and Environment Studies: Name Changed to Environment and Energy studies, the course is now an Audited course.
- b. Free Electives (Gandhian Thoughts and Swami Vivekananda) are also now an Audited course.
- c. It was also discussed to diversify the free electives.
- d. Student will take an audited capsule course
- e. Course on Engineering Drawing a unit is revised to include software aspect (Unit-4 modified).

b) Semester-II

Three interconnected subjects namely (a) Fluid Mechanics (2nd Semester-2017 Course); (b) Heat Mass and Transfer (3rd Semester-2017 course) and (c) Transport Phenomenon-(4th Semester-2017 Course) are revised and re-organized. It is now restructures as following

- a) The course Introduction to Petroleum Engineering is dropped.
- b) Transport Phenomenon is shifted to 2nd Semester with 4 credits (310-LTP).
- c) Total Credits for 2nd Semester is now 21 credits.

c) Semester-III

- a. The Mathematics-III course is revised and re-oriented towards Petroleum engineering in discussion with Department of Mathematics, now the modified Mathamatics-III course includes a Unit on Geostatistics and its Applications (Unit-IV modified).
- b. Fluid Mechanics Course (300-LTP) is shifted from 2nd Semester to 3rd semester, course syllabus revised.
- c. A practical on Petroleum Exploration (002-LTP) is introduced.
- d. Theory course credits of Thermodynamics is modified to 210-LTP from 310 LTP.
- e. The theory and practical course on Heat Mass and Transfer are shifted to Semester-4.

d) Semester-IV

- a. Theory and Practical of Numerical methods are shifted to 5th Semester. The change was suggested by Prof. T. P Sing with an objective that the course on Numerical Methods will be effectively help in better understanding Reservoir Modelling and Simulation in 6th Semester.
- b. To balance the total credits of the semester, following changes are introduced.
 - i. Petroleum Refinery engineering is shifted from 5th Semester, with LTP of 200 (reduced from 300 in 2017 course).
 - ii. The subject of Group Assignment and Presentation from 5th Semester is dropped and new course on Creativity and Team building is added (002-LTP).
 - iii. The Subject of Well Logging and Formation evaluation in shifted from 5th Semester to 4th Semester. The syllabus is modified and unit on Production Logging is separated and introduced as new subject in 5th Semester.
 - iv. The New Well Logging and Formation Evaluation is now 300 LTP.
 - v. The credits of Earth Science and Hydrocarbon exploration fieldwork is reduced to 3 credits from 5 credits.
 - vi. Two capsule courses as per the PDPU norms are to be completed (Audit).
 - vii. Name change is suggested for Drilling Engineering Practical, New Name suggested is drilling fluid practical.
 - viii. Total Credit for the semester is 22.

e) Semester-V

- a. The theory and practical course on Numerical Methods is introduced/shifted from 4th Semester.
- b. The Theory and practical course on Process dynamics and Control is removed from the core subjects and theory is introduced as open elective (200-LTP), practical is dropped.
- c. New course on Production Logging is introduced (200-LTP).
- d. Unconventional Hydrocarbon resources subject is shifted to 6th Semester
- e. The Course on Production Engineering-I is revised, units are modified and new name is suggested as Petroleum Production Engineering with 200-LTP.
- f. Academic Experts suggested to revise the Course objectives of Petroleum Engineering Practical-I.
- g. Drilling Engineering-II is modified and revised with name change to Advanced Drilling, shifted to 5th Semester from 6th Semester.
- h. Well Test analysis is shifted to 5th Semester from 6th semester.
- i. Total credits-22



f) Semester-VI

- a. Unconventional Hydrocarbon energy resources is shifted from 5th semester with 200 LTP.
- b. Subject of Surface Production Operations is revised with 200 LTP from 310 LTP (2017 course).
- c. Course on Process Equipment Design is dropped.
- d. Well Test analysis is shifted to 5th Semester from 6th semester.
- e. New course on Big data analytics and Internet of Things is introduced (200-LTP); New Course on Artificial Lift technology is introduced (200-LTP)
- f. Drilling Engineering-II is modified and revised with name change to Advanced Drilling, shifted to 5th Semester from 6th Semester
- g. New course on Natural Gas Engineering and Value addition is introduced in the 6th semester.

g) Semester-VII

- a. A new course on Offshore Operations Engineering is introduced with 300 LTP
- b. The two courses Natural Gas processing –LNG and City gas distribution are merged as Natural Gas Engineering and Value addition, shifted to 6th Semester.
- c. Production Engineering-II is modified to new course on Advanced Production Engineering and management (300-LTP).
- d. New course on Reservoir Engineering software is introduced (004-LTP)
- e. Name change of subject Seminar to Topical Seminar.
- f. Introduction to new elective on Hydrofracturing is introduced (200-LTP).
- g. Credits of Pre-Project dissertation are revised to 5 credits.
- h. Elective of Petroleum management to be change to Petroleum economics (200-LTP).

h) Semester-VIII

- a. The credits of Major Project and Project defense viva are revised to 6 and 4 credits respectively.
- b. External expert suggested to drop the credits from the Grand Viva as it is not course but an examination, hence proposed course credits are dropped and Grand Viva is a Pass/non-Pass.

The Attached Annexure 1 is the framework of the entire four year B. Tech Petroleum Engineering course.
Annexure-2 is justification for Changes in 1st Year subjects

Annexure-3 is detailed PDPU template of course along with course Objectives, Course Outcomes etc.

2. Any on the table agenda with the consent of the Chairman - BOS

No on the table agenda was discussed.

The meeting ended by the Chairman-BOS providing his concluding remarks and thanks to all the members attended the online platform meeting and their valuable inputs.

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Director-SPT

Prof. Tajinder Pal Singh
Director Academic Affairs

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Academic Expert

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Member-BOS

Dr. Bhawanisingh G. Desai
Chairman BOS