

**SCHOOL OF PETROLEUM TECHNOLOGY
PANDIT DEENDAYAL PETROLEUM UNIVERSITY**

RULES FOR FOUR YEAR B.TECH. DEGREE PROGRAM

(Effective from July, 2010)

1. SEMESTER SYSTEM

An academic year consists of the Autumn semester (July – December), Winter break (December - January), Spring semester (January – April), and Summer break (May-June). Autumn and Spring semesters are the two regular semesters of an academic year. In the winter and summer breaks, the School runs Rural Internship, Industrial Orientation, Industrial Training and Re-Examinations to meet curriculum requirements and provide an opportunity to clear backlog course(s).

2. ELIGIBILITY AND ADMISSION CRITERIA

The applicants should have a minimum academic qualification of 10+2 or its equivalent with Mathematics, Physics, and Chemistry, should appear in AIEEE examination being conducted by CBSE, and should submit a separate application to School of Petroleum Technology in the prescribed Application Form.

3. REGISTRATION

Registration at the beginning of each semester, on the prescribed dates announced in the academic calendar, is mandatory for every student until he completes his program. No student is allowed to attend a course without registration in that course. In case of compelling reasons, the School provides for **Late Registration**, whereby a student is allowed to register after the last date of registration on payment of a prescribed fine.

The student registers for course(s) during a given semester, on the basis of the program as prescribed in the Curriculum.

3.1 Procedure for Registration

Registration is done in person, normally on the first day of each semester, for which the schedule is announced in advance. Students having outstanding dues to the School or hostel will not be permitted to register; if a student fails to register during any semester his studentship is liable to be cancelled.

4. CURRICULUM - COURSES, SEMINAR, PROJECTS

The program has a prescribed course structure, known as the **Curriculum of Study**, that specifies the course titles and content offered in each semester.

Two types of courses are specified in the Curriculum: Lecture courses and Laboratory courses. Lecture courses consist of lecture (**L**) and tutorial (**T**) hours, and practical (**P**) hours in some cases. Laboratory courses consist of practical (**P**) hours, and tutorial (**T**) hours in some cases.

The credit (**C**) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of two (**2**) for lecture hours, one (**1**) for tutorial hours, and half (**1/2**) for laboratory hours.

Thus, for example, a course having the structure of two lectures and one tutorial per week carries a credit of 5 and is designated as 2(L)-1(T)-0(P)-5(C) or simply as 2-1-0-5. Other combinations could be 2(L)-0(T)-2(P)-5 (C) or 0(L)-0(T)-4(P)-2(C).

Separate credits are specified for Industrial Training, Industrial Orientation, Rural Internship, Seminar, Project, Viva-voce, Dissertation, etc. However, credits specified for Industrial Training, Industrial Orientation and Rural Internship are not taken into consideration for performance index evaluation. NSS/ NSO is a non-credit requirement.

Seminar is a course requirement wherein under the guidance of a faculty member a student is expected to carry out an in-depth study in a specialized area through study, literature survey, understanding different aspects of the problem, and writing a report. A student is required to present the seminar report before a panel constituted for the purpose.

B. Tech. Project is a course requirement, wherein under the guidance of a faculty member a student is required to carry out work involving the application of knowledge gained while undergoing various courses and laboratories in the earlier years. A student is expected to carry out the required literature survey, analysis, design, development and/ or experimentation. In the project work he is expected to exhibit both analytical and practical skills.

4.1 National Service Scheme (NSS)/ National Sports Organization (NSO)

Students must register for either of these activities (NSS/NSO) during the first two semesters. The choice will be made on the basis of the aptitude of the student for any of these activities. This requirement must be completed before the end of the second year. In case valid reasons exist, a student may be given special permission for completion of this requirement before the end of the third year, failing which he will not be permitted to register for the courses of the fourth year.

A student is awarded PP (*Pass*) grade for this activity in a semester provided the minimum requirement of this activity is met during that semester together with 80% minimum attendance, failing which the grade NP (*Fail*) is awarded. The award of the degree is subject to the successful completion of NSS/ NSO.

5. EVALUATION SYSTEM

To assess the academic performance of students, a continuous evaluation system is followed. At the end of each semester, each student is awarded a letter grade in each of his courses by the concerned instructor, based on his performance in mid-semester examination(s), end-semester examination, quizzes, tests, assignments, tutorials, laboratory work, seminars, projects, etc, and also on regularity of attendance in classes.

The assessment in a laboratory course is based on turn-to-turn supervision of the student's work, performance in *viva voce* examinations, and group discussions, the quality of work as prescribed through laboratory journals and an end-semester test that contains an experiment and/ or a written examination.

The Instructor will announce the mode of evaluation and distribution of marks at the beginning of the course. It is obligatory to maintain laboratory journal as prescribed by the course instructor. End-semester examinations for laboratory courses are normally held a week before the final theory examination.

5.1 Letter Grades

Each course is assigned a numerical weightage termed as credits for that particular course. A **letter grade** is awarded to students as the final evaluation in each course, and each letter grade carries numerical points, known as **grade points**, as shown below:

| Grade | Grade Points | Significance |
|--------------|---------------------|---------------------|
| AA | 10 | Excellent |
| AB | 9 | Very Good |
| BB | 8 | Good |
| BC | 7 | Fair |
| CC | 6 | Average |
| CD | 5 | Poor |
| DD | 4 | Marginal |
| FF | 0 | Fail |
| PP | | Pass |
| NP | | Not pass |

A student passes the course if he gets any grade in the range of **AA** to **DD** or **PP**, but fails if he gets the grade **FF** or **NP**.

A student is awarded fail grade **FF** if his performance in the course is poor. He is eligible for re-examination as per the time-table announced.

Grade **FF** in a course is also awarded if a student does not maintain the minimum required attendance in Lecture/ Tutorial/ Laboratory classes. **FF** grade may also be awarded to students having bad or incomplete in-semester records without valid medical reasons and/or inadequate attendance. **Such students are not permitted to take the end-semester examination in that course. They are permitted to take re-examination subsequently.**

5.2 Re-examination

The re-examination (1st attempt) would be held in subsequent semester during working days or on holidays. The re-examination (2nd attempt) would be held in Winter and Summer Break period. Students must register for each course if he wants to take re-examination (1st attempt) and/or re-examination (2nd attempt).

The number of attempts a student takes to clear the course shall appear on the grade sheet/transcript.

In case of re-examination, a student will be awarded one grade lower than that actually obtained by him and the highest grade that may be awarded to a student would be BC. The DD grade obtained however shall not be lowered. This re-examination shall be for the same portion of the course and same weightage of marks as that of the preceding end-semester examination in that course in the running academic session (Autumn and Spring Semesters), and on payment of prescribed fees.

Students are not permitted to re-register or take re-examination for courses in which they have already obtained a pass grade or PP.

Registration, Examination etc. for re-examination is to be carried out as per the academic calendar, and the evaluation is to be carried out in the same manner as done in the regular semester courses.

5.3 Re-evaluation due to illness or accident in case of missing quiz/mid-semester examination

If a student misses a quiz or mid-semester examination due to personal illness or accident, or death or serious illness of Parent or Guardian, the student must apply to the concerned faculty member either for re-test or for merging his performance with his end-semester examination provided that the student has maintained 80% attendance in the course (theory and tutorial separately) till that time. His application for re-test or merging his performance with his end-semester examination must be supported by proper medical certificate duly approved by the Medical Authority of the University. In the event of death or serious illness of Parent or Guardian, the application should be supported by adequate evidence of the same. The concerned faculty member's decision for acceptance or denial in this regard shall be final.

5.4 SPI/ CPI

Based on the grades and their numerical equivalents, Semester Performance Index (SPI) and Cumulative Performance Index (CPI) of the student are calculated at the end of each semester: SPI and CPI are calculated up to the second decimal.

(i) SPI: The performance of a student at the end of every semester is evaluated in terms of the weighted average of grade points secured in all the courses for which the student registers in the semester, and is known as SPI.

(ii) CPI: It indicates the overall academic performance of a student in all the courses registered up to and including the last completed semester. It is computed in the same manner as the SPI, considering all the courses.

$$SPI = \frac{\sum_{i=1}^n C_i \cdot G_i}{\sum_{i=1}^n C_i}$$

where C_i = Credit for the course i
 G_i = Grade points obtained for the course i (AA=10, AB=9, BB=8, etc.)
 n = number of courses registered in a semester

$$CPI = \frac{\sum_{k=1}^m S_k \cdot C_k}{\sum_{k=1}^m C_k}$$

where m = total number of semesters under consideration
 C_k = total number of credits registered for during a particular semester
 S_k = SPI of the k^{th} semester

Example: Suppose a student secures credit 210 (SPI of 6.55) in semester 1 of total registered credit 32, and he obtains the following grades in semester 2 of total registered credit 34, his SPI and CPI calculation is as follows:

Course 1 (credit=4): BC, Course 2 (credit=7): BC, Course 3 (credit=5): BC; Course 4 (credit=5): CD, Course 5 (credit=6): AB, Course 6 (credit=5): CD, Course 7 (credit=2): BC. Thus the credit secured in semester 2 is 230.

$$SPI = (4 \times 7 + 7 \times 7 + 5 \times 7 + 5 \times 5 + 6 \times 9 + 5 \times 5 + 2 \times 7) / (4 + 7 + 5 + 5 + 6 + 5 + 2) = 230/34 = 6.76$$
$$CPI = (230 + 210) / (34 + 32) = 6.67$$

5.5 Minimum Performance

At the end of the eighth semesters the minimum CPI required for graduation in the B.Tech. program is 5.0.

5.6 Semester Grade Report

At the end of each semester the grade report, which reflects the performance of the student in that semester, is made available to the Student.

5.7 Implications of a Fail Grade on CPI

CPI reflects all courses studied by the student including courses where he has failed. In case of **FF** grades, CPI is calculated on the basis of the final grade obtained by the student, after re-examination, if any.

5.8 Policies on disclosing the evaluated end-semester answer books and period of retention

A course instructor will allow students to see the evaluated answer scripts on or before a stipulated date as specified in Academic Calendar, before the finalization of grades. Evaluated answer scripts of the end-semester examination should be preserved by the instructor for a minimum period of one year.

5.9 Treatment of Malpractice / Unfair means

The students found/ reported for malpractice/ using unfair means in an Examination/ Re-examination/ Assessment will be called in front of a Special Committee constituted for the purpose, which will recommend to the Director its decision about penalizing the concerned students. The Director's decision in such matters will be final and binding.

5.10 Eligibility for admission to the next Semester

(1) A student shall be eligible for admission to Semester II, provided

(a) He has passed all prescribed courses for Semester I Examination.

OR

(b) He appeared and failed all or some courses for Semester I Examination

OR

(c) He was eligible to appear but missed to appear at Semester I Examination.

(2) A student shall be eligible for admission to Semester III, provided he has no **FF** grade in courses of Semester I examination, and

(a) He has passed all prescribed courses for Semester II Examination

OR

(b) He appeared and failed all or some courses for Semester II Examination

OR

(c) He was eligible to appear but missed to appear at Semester II Examination.

(3) A student shall be eligible for admission to Semester IV, provided he has no **FF** Grade in courses of Semester II examination, and

(a) He has passed all prescribed courses for Semester III Examination

OR

(b) He appeared and failed all or some courses for Semester III Examination

OR

(c) He was eligible to appear but missed to appear at Semester III Examination.

(4) A student shall be eligible for admission to Semester V, provided he has no **FF** Grade in courses of Semester III examination, and

(a) He has passed all prescribed courses for Semester IV Examination

OR

(b) He appeared and failed all or some courses for Semester IV Examination

OR

(c) He was eligible to appear but missed to appear at Semester IV Examination.

(5) A student shall be eligible for admission to Semester VI, provided he has no **FF** Grade in courses of Semester IV examination, and

(a) He has passed all prescribed courses for Semester V Examination

OR

(b) He appeared and failed all or some courses for Semester V Examination

OR

(c) He was eligible to appear but missed to appear at Semester V Examination.

(6) A student shall be eligible for admission to Semester VII, provided he has no **FF** Grade in courses of Semester V examination, and

(a) He has passed all prescribed courses for Semester VI Examination

OR

(b) He appeared and failed all or some courses for Semester VI Examination

OR

(c) He was eligible to appear but missed to appear at Semester VI Examination.

(7) A student shall be eligible for admission to Semester VIII, provided he has no **FF** Grade in courses of Semester VI examination, and

(a) He has passed all prescribed courses for Semester VII Examination

OR

(b) He appeared and failed all or some courses for Semester VII Examination

OR

(c) He was eligible to appear but missed to appear at Semester VII Examination

6. PERFORMANCE REQUIREMENTS

6.1 Award of Degree

For award of the B. Tech. degree in Petroleum Engineering, a student must fulfill the following requirements:

(i) The student should have registered in and passed all the prescribed courses in the Curriculum.

(ii) the student should have satisfactorily fulfilled other academic requirements such as Internships, industrial orientation and training programmes, NSS/NSO, work visits, seminar(s), and B. Tech. project.

(iii) the student should have paid all the University dues.

(iv) the student should have no pending case of indiscipline against him.

Although CPI will be shown in the semester grade reports and transcript, the final degree certificate will not mention any class. CPI of 6.5 or above is considered as First Class, and indicated accordingly in the transcript.

6.2 Minimum CPI for Award of Degree

Eligibility for award of degree is final CPI of 5.0 and above.

6.3 Maximum Period for Completion of Program

In any case, a student must fulfill the requirements of the B.Tech. degree within the maximum period of **six years**, excluding withdrawal in exceptional circumstances, failing which his case will be referred to the Academic Council for consideration.

6.4 Students with FF Grade in courses

Students with FF Grades are required to register in person for Re-Examination. They should regularly meet and seek advice from the Faculty Adviser. Students with FF Grades should continuously be in constant touch with parents about their performance.

7. FACULTY ADVISER

On joining the School, every student is assigned to a Faculty Adviser. Students are expected to consult the Faculty Adviser on matters relating to their academic performance and the courses they may take in various semesters. The role of Faculty Adviser is to extend guidance to students, enabling them to complete their courses of study in a smooth and satisfactory manner. The Faculty Adviser is the person to whom the Parents/ Guardians should contact for performance related issues of their ward.

Specific role of Faculty Adviser includes:

- Guidance about the rules and regulations governing the courses of study;
- Registration of students for courses, within the scope of the regulations.
- Special attention to weak students, including making revised plan of study for weak/ bright students based on their academic performance.
- Guidance and liaison with Parents of students for their performances.

8. INTERNSHIPS

Rural Internship: A student is required to undergo 3 weeks of Rural Internship in the non-teaching period of the first year of the B.Tech. program as partial requirement for the award of the degree.

Industry Orientation: A student is required to undergo 3 weeks of Industry Orientation in the non-teaching period of the Second year of the B.Tech. program as partial requirement for the award of the degree. This would be at one or more petroleum and other related industry units.

Industrial Training: A student is required to undergo 6 to 8 weeks of Industrial Training in the non-teaching period of the Third year of the B.Tech. program as partial requirement for the award of the degree. This internship can be carried out either in Industry, at an R&D organization, or Petroleum Schools/Departments of Universities.

9. ACADEMIC CALENDAR

All academic activities of the School are carried out in accordance with the annual Academic Calendar declared in the beginning of the academic year, which is made available to the University community in print and/ or electronic form.

10. CONDUCT AND DISCIPLINE

10.1 Attendance

Attendance in classes and laboratories is compulsory and will be monitored. Faculty members shall adopt appropriate measures to regulate attendance, penalize absence, and ensure smooth and undisturbed process of learning. A student with less than 80% attendance due to whatsoever reason, including medical ground and participation in extra-curricular activities, in a course will be barred

by concerned faculty member from appearing in his course in the end-semester examination and given **FF** grade. The concerned faculty member shall notify in this regard.

10.2 Academic Conduct & Discipline

- a. PDPU attaches the utmost importance to strict integrity and honesty in all segments of academic work.
- b. Any form of dishonesty including attempts to copy or help others copy in any manner is strictly prohibited. Unless specified otherwise by the teacher concerned, students must not collaborate/ syndicate in any manner in completion of home assignments and projects.
- c. Canvassing for grades is strictly prohibited.
- d. Penalty for breach of academic discipline includes expulsion from the University.
- e. Marking proxy attendance for others or having attendance marked by others will attract severe punishment.
- f. Cases of indiscipline or misconduct such as mass abstention from classes, irresponsible behavior inside or outside the classes, use of unethical practices during Internships, or violation of the rules and regulations of the Program will be severely dealt with.
- g. The University reserves the right to impose fines for acts of indiscipline. In more severe cases, a student may be placed on Disciplinary Probation for a semester. Repetition of indiscipline during Disciplinary Probation may result in a student being expelled from the University for a semester or academic year.

10.3 General Conduct & Discipline

- a. PDPU attaches the utmost importance to strict integrity, honesty, and general conduct of the students.
- b. Every student shall conduct himself in a manner befitting his association with an institution of national importance. He is expected not to indulge in any activity that is likely to bring down the prestige of the University.
- c. He should also show due respect and courtesy to the teachers, administrators, officers and employees of the School, and good neighborly behavior to fellow students. Due attention and courtesy is to be paid to visitors to the School and residents of the campus.
- d. Lack of courtesy and decorum, unbecoming conduct (both within and outside the campus), willful damage and/ or removal of PDPU property or belongings of fellow students, disturbing others in their studies, adoption of unfair means during examinations, breach of rules and regulations, noisy and unseemly behavior, and similar other undesirable activities may result in Disciplinary Probation and expulsion/ dismissal from the University.
- e. Every student, while on the university premises, should observe a decent civilized dress code.
- f. Smoking and consumption of alcoholic drinks is strictly prohibited on PDPU Campus.
- g. **Ragging in any form is a criminal offence and is strictly prohibited.**
- h. Students are not permitted to run any commercial venture in or outside PDPU campus. They are also not permitted to associate/ help/ advise any organizations on a commercial

basis and to receive any honorarium for the services rendered during their studies. They are free to work on the campus only if such an opportunity is provided by the University.

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