

## SCHOOL OF ENGINEERING

### DEPARTMENT OF PETROLEUM ENGINEERING

#### Feedback on Curriculum 2022-2023: Action Taken

(Feedback Analysis and Action Taken are presented and approved in the 14<sup>th</sup> Meeting of BoS held on 27<sup>th</sup> July, 2022)

#### Student Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 73% of the respondents opined that the syllabus of the courses studied by them is very good to excellent.	To maximize the acceptability of the syllabus, it is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 70% of the respondents opined that the studied courses have applicability/ relevance to real life situations (Employability).	To maximize the course applicability/relevance to real life situations, it is resolved that the department will initiate the process of revising the syllabi of existing courses step-by-step wherever necessary and also introduce new courses if required. In this regard, please refer to Annexure-I which displays courses proposed for syllabus revision.
A total of around 70% of the respondents opined that the learning value in terms of skills, concepts, knowledge, and analytical abilities is within the range of very good to excellent.	It is resolved that more activities through NSS, SPE Student Chapter, AAPG Student Chapter, and Presidency University Petroleum Forum will be planned to enhance the learning value in terms of skills, concepts, knowledge, and analytical abilities.
A total of around 73% of the respondents opined that the sequence of the Courses that they have studied in the previous semester is within the range of very good to excellent.	It is resolved that the sequence of the courses will be discussed again in the DAC / BOS meeting and will be revised if found necessary.
A total of around 77% of the respondents opined that the sequence of the units in the courses is within the range of very good to excellent.	It is resolved that the sequence of the courses will be discussed again in the DAC / BOS meeting and will be revised if found necessary.
A total of around 73% of the respondents opined that the offering of the electives in terms of their relevance to the specialization streams is within the range of very good to excellent.	It is resolved that the department will initiate the process of revising the syllabi of existing elective courses step-by-step wherever necessary and also introduce new courses if required. In this regard, please refer to Annexure-I which displays courses proposed for syllabus revision.
A total of around 77% of the respondents opined that the relevance of the Text Books and reference books to the Courses is within the range of very good to excellent.	It is resolved that the list of textbooks and reference books will be updated to enhance the relevance with respect to the syllabus.
A total of around 73% of the respondents opined that the percentage of courses having LAB components is within the range of very good to excellent.	It is resolved that the initiatives will be taken to enhance the LAB components while revising the syllabus of lab-based courses. In this regard, please refer to Annexure-I which displays courses proposed for syllabus revision.
A total of around 77% of the respondents opined that the experiments in relation to the real life applications are within the range of very good to excellent.	It is resolved that the hands-on workshop will be planned by the faculty members/industry experts to offer the experiments in relation to real life applications.
It is proposed to add coding courses to the curriculum.	Four courses are added to the list of School Core and one course to the list of Discipline Electives.
Field practices need to get for all students.	It is resolved that the students will be encouraged to undertake more industry-oriented projects and the department will also try to arrange at least one field/industry visit for each student.

## Alumni Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 78% of the respondents opined that the syllabus of the courses studied by them was relevant. They gave feedback within the range of very good to excellent.	To maximize the acceptability of the syllabus, it is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 69% of the respondents opined that the syllabus of the courses studied by them was within the range of very good to excellent.	It is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 66% of the respondents opined that the course content delivery was interesting.	It is resolved that the pedagogy implemented for course content delivery will be discussed thoroughly to incorporate changes wherever necessary.
A total of around 66% of the respondents opined that the course curriculum intellectually stimulates them.	It is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary.
A total of around 66% of the respondents opined that the course curriculum fulfilled their expectations.	To maximize the acceptability of the course curriculum, it is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 63% of the respondents opined that they learnt the required skills in the due course of study.	It is resolved that more activities through NSS, SPE Student Chapter, AAPG Student Chapter, and Presidency University Petroleum Forum will be planned to enhance the learning value in terms of skills, concepts, knowledge and analytical abilities.
A total of around 63% of the respondents opined that the syllabus created interest to pursue post-graduation/research in the particular topic.	It is resolved that the syllabi of existing courses will be revised wherever possible to create more interest among the students for pursuing post-graduation/research in the particular topic.
A total of around 66% of the respondents opined that the courses that they have learnt suiting the requirements of the Industry.	It is resolved that the syllabi of existing courses will be revised wherever possible to make them suitable for fulfilling industry requirements.
A total of around 72% of the respondents opined that the learning experience in terms of their relevance to the real life applications is within the range of very good to excellent.	It is resolved that the hands-on workshop will be planned by the faculty members/industry experts to offer experiments in relation to real life applications.
A total of around 78% of the respondents opined that the courses learnt in relation to their current job is within the range of very good to excellent.	It is resolved that the more job-oriented courses will be designed to ensure maximum employability.
It is suggested to add more petroleum/geology-related software (ex: ArcGIS, Eclipse.). This will help students when they start their careers.	A one-day visit to the industry is already incorporated in the Petroleum Geology course. Training / Workshop on Halliburton Software package is already initiated to fill-up the gap. It is already proposed to incorporate ArcGIS into the curriculum.

## Faculty Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 60% of the respondents opined that the Syllabus is suitable to the course.	It is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary to make the courses need-based. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 60% of the respondents opined that the Syllabus is need based.	It is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary to make the courses need-based. In this regard, please refer to Annexure-I which displays the courses proposed for syllabus revision.
A total of around 60% of the respondents opined that the syllabi are well defined and clear to teachers and students.	It is resolved that the syllabi of the existing courses will be revised step-by-step wherever found necessary.
A total of around 60% of the respondents opined that the courses / syllabus has good balance between theory and application.	It is resolved that the course content will be revised step-by-step wherever required and more lab-based courses will be introduced wherever possible. Please refer to Annexure-I displaying the courses identified for syllabus revision.
A total of around 60% of the respondents opined that the course / program of studies carries sufficient number of optional papers.	It is resolved to add more optional papers to the program in the future.
A total of around 80% of the respondents opined that the books prescribed / listed as reference materials are relevant, updated and appropriate.	It is resolved that the list of textbooks and reference books will be updated.
A total of around 80% of the respondents opined that they have the freedom to propose, modify, suggest and incorporate new topics in the syllabus.	It is resolved that an open discussion may be conducted with the faculty members to discuss the freedom to propose, modify, suggest and incorporate new topics in the syllabus.
A total of around 80% of the respondents opined that they have the freedom to adopt new techniques/strategies of teaching such as seminar presentations, group discussions, and learner's participations.	It is resolved that an open discussion may be conducted with the faculty members to discuss the techniques/strategies that can be adopted for teaching.
A total of around 60% of the respondents opined that the environment in the department is conducive to teaching and research.	It is resolved that an open discussion may be conducted with the faculty members to improve the research environment in the department.
It is proposed to increase the number of program core courses.	It is resolved to revisit the curriculum structure and add more program core courses, if possible.
It is suggested to add more discipline elective courses with time.	It is resolved to add more discipline elective courses with time.
For core courses, the credit should be 4 at least. It is really difficult for the faculties to complete particular courses in such constricted structure.	It is resolved to revisit the syllabus and credit structure once again and incorporate necessary changes. Please refer to Annexure-I.
For some of the lab-integrated course the theory hours allocated is very less, the credit structure could be changed to give sufficient time for the theory part of the course.	It is resolved to revisit the syllabus and credit structure once again and incorporate necessary changes. Please refer to Annexure-I.

## Employer Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 58% of the respondents opined that the adequacy of the core courses is within the range of very good to excellent.	It is resolved that the existing core courses will be revised step-by-step wherever required and new courses can also be introduced if found necessary. Please refer to Annexure-II displaying the courses identified for syllabus revision.
A total of around 67% of the respondents opined that the practical content in the Curriculum is within the range of very good to excellent.	It is resolved that the course content will be revised step-by-step and practical content will be increased wherever required. Please refer to Annexure-II displaying the courses identified for syllabus revision.
A total of around 58% of the respondents opined that the fulfillment of needs is within the range of very good to excellent.	It is resolved that the course content will be revised step-by-step wherever required.
A total of around 58% of the respondents opined that the clear idea about the purpose of the course is within the range of very good to excellent.	It is resolved that the course objectives will be edited to make the clear idea about the purpose of the course.
A total of around 42% of the respondents opined that the curriculum proved useful at workplace is within the range of very good to excellent.	It is resolved that the course content will be revised to make the curriculum more useful at workplace.
A total of around 58% of the respondents opined that the Curriculum followed by the Employee relevant to Employability.	It is resolved that the course content will be revised step-by-step wherever required to make the curriculum more relevant towards employability.
A total of around 50% of the respondents opined that the Curriculum helps at improving Students performance with respect to general communication.	It is resolved that the course curriculum will be revised wherever required for improving Students' performance with respect to general communication.
A total of around 67% of the respondents opined that the Curriculum helps at improving Students performance with respect to their planning and organization skills.	It is resolved that the course content will be revised step-by-step wherever required. Please refer to Annexure-II displaying the courses identified for syllabus revision.
A total of around 58% of the respondents opined that the Curriculum helps at improving Students performance with respect to developing practical solutions to work place problems.	It is also resolved to organize more hands-on workshops where real-filed data will be shared for analysis.
A total of around 50% of the respondents opined that the Curriculum helps in building Entrepreneurial motives which helps the Students for starting their ventures.	It is resolved that a few courses or activities will be designed to improve Entrepreneurial skills among the students.
It is proposed to add courses related to data analysis, patent filing process, multiphase flow, etc. to enhance the employability skills for the students.	The knowledge that is expected to be gained from the proposed courses can be achieved through the workshops or value added courses. Please refer to Annexure-II for the list of courses proposed to be added and implemented from the Academic Year 2022-2023.
As CCUS (Carbon Capture Utilisation and Storage) has become an important aspect of the energy industry, it is proposed to impart knowledge among the students.	It is resolved to impart the knowledge about CCUS through Value Added Courses initially and a new course on CCUS may be introduced later.

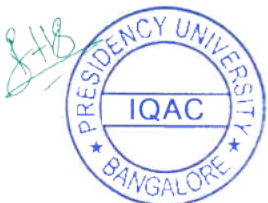
## Annexure-I

### List of Courses proposed and approved for Syllabus Modifications (Proposed and approved in the 14<sup>th</sup> Meeting of BoS held on 27<sup>th</sup> July, 2022)

Sl. No.	Course Code	Course Name	L	P	C	Course Type	Semester
1	PET1001	Petroleum Geology	3	2	4	PC	II
2	PET1003	Data Analytics for Oil and Gas Exploration	3	0	3	DE	-
3	PET1004	Fundamentals of Pore Pressure and Geomechanics	2	0	2	DE	-
4	PET1005	Geology for Engineers	2	0	2	OE	-
5	PET1006	Overview of Energy Industry	2	0	2	OE	-
6	PET1007	Introduction to Energy Trading and Future Options	2	0	2	OE	-
7	PET1008	Sustainable Energy Management	2	0	2	OE	-
8	PET2001	Drilling Fluids and Cements	3	2	4	PC	II
9	PET2002	Fundamentals of Geophysical Logging Techniques	4	0	4	PC	IV
10	PET2003	Fundamentals of Oil and Gas Well Drilling Technology	3	0	3	PC	III
11	PET2004	Fundamentals of Petroleum Reservoir Engineering	3	2	4	PC	IV
12	PET2005	Fundamentals of Instrumentation and Control Engineering	2	2	3	PC	V
13	PET2006	Fundamentals of Oil and Gas Production Technology	3	0	3	PC	V
14	PET2008	Heat and Mass Transfer for Petroleum Engineering	2	2	3	PC	III
15	PET2013	Introduction to Geoinformatics	3	0	3	DE	-
16	PET2014	Geophysical Methods for Oil and Gas Exploration	3	0	3	PC	V
17	PET2015	Coal Bed Methane	3	0	3	DE	-
18	PET2016	Shale Gas	2	0	2	DE	-
19	PET2017	Natural Gas Hydrates	3	0	3	DE	-
20	PET2026	Introduction to Computational Fluids Dynamics	3	0	3	OE	-
21	PET2027	Corrosion Science and Technology	3	0	3	DE	-
22	PET2030	Occupational Health and Safety	3	0	3	DE	-
23	PET2031	Overview of Material Science	3	0	3	OE	-
24	PET2032	Petroleum Economics	3	0	3	OE	-
25	PET3001	Geomechanics for Wellbore Stability Analysis	3	0	3	DE	-
26	PET3003	Offshore Drilling and Petroleum Production Practices	3	0	3	PC	VI
27	PET3007	Enhanced Oil and Gas Recovery Techniques	3	0	3	DE	-

L = Lecture, P = Practical, C = Credit, PC = Program Core Course, DE = Discipline Elective Course, OE = Open Elective Course. NOTE: Semester is mentioned based on the 2022-2026 Batch.

Pursuant to Feedback received on the Curriculum from the Stakeholders, the above-listed courses are approved for syllabus modifications and for inclusion into the Curriculum from the Academic Year 2022-2023.



## Annexure-II

**List of Courses proposed and approved to be introduced as New Courses**  
(Proposed and approved in the 14<sup>th</sup> Meeting of BoS held on 27<sup>th</sup> July, 2022)

Sl. No.	Course Code	Course Name	L	T	P	C	Course Type	Semester
1	PET 322	Data Science for Petroleum Engineers	2	0	0	2	DE	VIII
2	PET 323	Multiphase Flow for Oil and Gas Transport	2	0	0	2	DE	VIII
3	PET 324	Patent Creation Roadmap for Energy Professionals	2	0	0	2	DE	VIII

Pursuant to Feedback received on the Curriculum from the Stakeholders, the above-listed new courses are approved for inclusion into the Curriculum from the Academic Year 2022-2023.

