SCHOOL OF ENGINEERING

DEPARTMENT OF PETROLEUM ENGINEERING

Feedback on Curriculum 2020-2021: Action Taken

(Feedback Analysis and Action Taken are presented and approved in the 11th Meeting of BoS held on 5th September, 2020)

Student Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 76% of the respondents opined that the syllabus of the courses that they have studied is within the range of very good to excellent.	To improve the syllabus, it is resolved that the department will initiate the process for revising the syllabi of existing courses step-by-step wherever necessary and also introduce new courses if required. In this regard, please refer to the Annexure-I which display the courses proposed for syllabus revision.
A total of around 78% 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 for revising the syllabi of existing courses step-by-step wherever necessary and also introduce new courses if required. In this regard, please refer to the Annexure-I which display the courses proposed for syllabus revision.
A total of around 70% 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 80% 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 83% 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.
A total of around 73% of the respondents opined that the allocation of the credits to the courses is within the range of very good to excellent.	It is resolved that the requirement for a change in credit structure will be discussed during the syllabus revision meeting.
It is suggested to incorporate more lab-based courses.	It is resolved that the department will initiate the process for introducing more number of lab-based courses in the syllabus in future.

Alumni Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 64% 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 67% 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 69% 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 69% 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. 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 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 75% 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 72% 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. Please refer to Annexure-I for the list of courses identified for syllabus revision.
A total of around 61% 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. Please refer to Annexure-I for the list of courses identified for syllabus revision.
A total of around 75% 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 61% of the respondents opined that the courses leant 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.

Faculty Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 50% 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 50% 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 50% 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 in introduced wherever possible. Please refer to Annexure-I displaying the courses identified for syllabus revision.
A total of around 50% 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 67% 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 83% 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 83% 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 33% 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 suggested to upgrade the laboratories.	It is resolved to take the initiative for upgrading the laboratories.
It is suggested to improve the research infrastructure.	It is resolved to discuss with the Dean-R&I for improving the research infrastructure in the department and university level.

Employer Feedback on Curriculum: Action Taken

Feedback Received	Action Taken
A total of around 47% 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-I displaying the courses identified for syllabus revision.
A total of around 47% 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-I displaying the courses identified for syllabus revision.
A total of around 73% 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 a clear idea about the purpose of the course.
A total of around 67% 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. Please refer to Annexure-I displaying the courses identified for syllabus revision.
A total of around 67% 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-I displaying the courses identified for syllabus revision.
A total of around 67% of the respondents opined that the Curriculum helps at improving Students performance with respect to developing practical solutions to work place problems.	It is resolved that the course content will be revised step-by-step wherever required. Please refer to Annexure-I displaying the courses identified for syllabus revision. It is also resolved to organize more hands-on workshops where real-filed data will be shared for analysis.
A total of around 40% 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 suggested to conduct an assessment after the completion of each topic/unit to check the sustainability of the learning	It is resolved to conduct an assessment after the completion of each topic/unit to check the sustainability of the learning wherever possible.
It is suggested to make practicals like making papers and presentations at fests in other universities mandatory and an assessment weightage can be allotted for the particular course	It is already implemented in many courses.

Annexure-I

List of Courses proposed and approved for Syllabus Modifications

(Proposed and approved in the 11th Meeting of BoS held on 5th September, 2020)

Sl. No.	Course Code	Course Name	L	T	P	C	Course Type	Semester
1	PET 213	Petroleum Production Engineering	3	1	0	4	CC	V
2	PET 214	Surface Production Operations	3	0	0	3	CC	VI
3	PET 215	Natural Gas Engineering	3	1	0	4	CC	VI
4	PET 225	Advanced Reservoir Engineering and Management	3	0	0	3	CC	VI
5	PET 226	Process Control and Instrumentation	3	0	0	3	CC	V
6	PET 227	Well Test Analysis	3	1	0	4	CC	V
7	PET 228	Work over and Stimulation	3	1	0	4	CC	VI
8	PET 258	Reservoir Simulation and Modelling Lab	1	0	2	2	CC	VI
9	PET 261	Process Control Lab	0	0	2	1	CC	V
10	PET 262	Momentum Transfer Lab	0	0	2	1	CC	V
11	PET 301	Well Design and Construction	3	0	0	3	DE	-
12	PET 303	Pipeline Engineering	3	0	0	3	DE	-
13	PET 304	Reservoir Geomechanics	3	0	0	3	DE	-
14	PET 306	Transport Phenomena	3	0	0	3	DE	-
15	PET 308	Health Safety and Environment	3	0	0	3	DE	-
16	PET 316	Fundamentals of Process Engineering Calculations	3	0	0	3	DE	-
17	PET 317	Advance Drilling Engineering	3	0	0	3	DE	-
18	PET 318	Unconventional Hydrocarbons	3	0	0	3	DE	-
19	PET 319	Oil Field Development and Reservoir Management	3	0	0	3	DE	-
20	PET 320	Remote Sensing and GIS	3	0	0	3	DE	-
21	PET 321	Unit Operations	3	0	0	3	DE	-
22	PET 402	Computational Methods in Chemical Engineering	3	0	0	3	OE	-
23	PET 403	Computational Fluid Dynamics	3	0	0	3	OE	-
24	PET 405	Petroleum Corrosion Technology	3	0	0	3	OE	-
25	PET 406	Polymer Technology	3	0	0	3	OE	-
26	PET 407	Oil and Gas Quality Management	3	0	0	3	OE	-
27	PET 408	Oil and Gas Transportation and Marketing	3	0	0	3	OE	-
28	PET 409	Material Science and Engineering	3	0	0	3	OE	-

CC = Core Course, DE = Discipline Elective Course, OE = Open Elective Course
NOTE: Semester is mentioned based on the 2019-2023 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 2020-2021.

Annexure-II

List of Courses proposed and approved to be introduced as New Courses
(Proposed and approved in the 11th Meeting of BoS held on 5th September, 2020)

Sl. No.	Course Code	Course Name	L	T	P	C	Course Type	Semester
1	CHE1002	Industrial Chemistry	2	0	2	3	DE - GNB	
2	PET1001	Petroleum Geology	3	0	2	4	PC	
3	PET1003	Data Analytics for Oil and Gas Exploration	3	0	0	3	DE - GNB	
4	PET1004	Fundamentals of Pore Pressure and Geomechanics	2	0	0	2	DE - PEB	
5	PET1005	Geology for Engineers	2	0	0	2	OE	
6	PET1006	Overview of Energy Industry	2	0	0	2	OE	
7	PET1007	Introduction to Energy Trading and Future Options	2	0	0	2	OE	
8	PET1008	Sustainable Energy Management	2	0	0	2	OE	
9	PET2001	Drilling Fluids and Cements	3	0	2	4	PC	
10	PET2002	Fundamentals of Geophysical Logging Techniques	4	0	0	4	PC	
11	PET2003	Fundamentals of Oil and Gas Well Drilling Technology	3	0	0	3	PC	
12	PET2004	Fundamentals of Petroleum Reservoir Engineering	3	0	2	4	PC	
13	PET2005	Fundamentals of Instrumentation and Control Engineering	2	0	2	3	PC	
14	PET2006	Fundamentals of Oil and Gas Production Technology	3	0	0	3	PC	
15	PET2007	Oil and Gas Surface Facility Design	2	0	2	3	PC	
16	PET2008	Heat and Mass Transfer for Petroleum Engineering	2	0	2	3	PC	
17	PET2009	Thermodynamics of Reservoir Fluids	2	0	2	3	PC	
18	PET2010	Introduction to Oil and Gas Reservoir Simulation	1	0	2	2	PC	
19	PET2011	Oil and Gas Downstream Operations	3	0	2	4	PC	
20	PET2012	Reservoir Fluid Mechanics	2	0	2	3	PC	
21	PET2013	Introduction to Geoinformatics	3	0	0	3	DE - GNB	
22	PET2014	Geophysical Methods for Oil and Gas Exploration	3	0	0	3	PC	
23	PET2015	Coal Bed Methane	3	0	0	3	DE - PEB	
24	PET2016	Shale Gas	2	0	0	2	DE - PEB	
25	PET2017	Natural Gas Hydrates	3	0	0	3	DE - PEB	
26	PET2018	Integrated Field Development and Planning	3	0	0	3	DE - REB	
27	PET2019	Oil and Gas Well Test Analysis	3	0	0	3	PC	
28	PET2020	Process Pipeline Design	3	0	0	3	DE - PSB	
29	PET2021	Process Design and Calculations	3	0	0	3	DE - PSB	
30	PET2022	Solids Handling in Oil and Gas Industry	3	0	0	3	DE - PSB	
31	PET2023	Design in Production Engineering	2	0	0	2	DE - PSB	
32	PET2024	Wellbore Problems and Mitigation	3	0	0	3	DE - PSB	
33	PET2025	Petroleum Transportation, Marketing and Management	2	0	0	2	DE - DSB	
34	PET2026	Introduction to Computational Fluids Dynamics	3	0	0	3	OE	
35	PET2027	Corrosion Science and Technology	3	0	0	3	DE - DSB	
36	PET2028	Polymer Science and Technology	3	0	0	3	OE	
37	PET2029	Quality Management Practices in Oil and Gas Industry	3	0	0	3	DE - GNB	
38	PET2030	Occupational Health and Safety	3	0	0	3	DE - DEB	
39	PET2031	Overview of Material Science	3	0	0	3	OE	

40	PET2032	Petroleum Economics	3	0	0	3	OE	
41	PET3001	Geomechanics for Wellbore Stability Analysis	3	0	0	3	DE - PEB	
42	PET3002	Directional Drilling Technology	3	0	0	3	PC	
43	PET3003	Offshore Drilling and Petroleum Production Practices	3	0	0	3	PC	
44	PET3004	Advanced Well Engineering	3	0	0	3	DE - DEB	
45	PET3005	Multilateral and Horizontal Well Technology	2	0	0	2	DE - DEB	
46	PET3006	Advanced Petroleum Reservoir Engineering	3	0	0	3	PC	
47	PET3007	Enhanced Oil and Gas Recovery Techniques	3	0	0	3	DE - REB	
48	PET3008	Fluid Flow through Porous Media	3	0	0	3	DE - REB	
49	PET3009	Natural Gas Reservoir Engineering	3	0	0	3	DE - REB	
50	PET3010	Natural Gas Production Engineering	3	0	0	3	DE - PSB	
51	PET3011	Well Intervention Technologies	3	0	0	3	PC	
52	PET3012	Fundamentals of Chemical Engineering	3	0	0	3	DE - DSB	
53	PET3013	Advanced Refining Engineering	3	0	0	3	DE - DSB	
54	PET3014	Advanced Petrochemical Engineering	3	0	0	3	DE - DSB	
55	PET3015	Chemical Reaction Engineering	3	0	0	3	DE - DSB	
56	PET3016	Process Equipment Design	3	0	0	3	DE - DSB	
57	PET4001	Minor Project	-	-	-	3	DE - GNB	

SC = School Core, PC = Program Core, DE = Discipline Elective Course, OE = Open Elective Course, GNB = General Basket, PEB = Petroleum Exploration Basket, DEB = Drilling Engineering Basket, REB = Reservoir Engineering Basket, PSB = Production Engineering and Surface Facility Design Basket, DSB = Downstream Basket.

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 2020-2021. All new courses are introduced for the 2020-2024 Batch and will be continued for the upcoming batches.