



ADITYA ENGINEERING COLLEGE

An Autonomous Institution

Approved by AICTE • Permanently Affiliated to JNTUK • Accredited by NAAC with 'A' Grade

Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956

Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Program Name : B.Tech. in Petroleum Technology

Syllabus Revision for the Academic Year 2018-2019

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	17IHS1T01	English - I	0
2	I	17IBS1T01	Mathematics - I	0
3	I	17IHS1T02	Environmental Studies	0
4	I	17IBS1T03	Engineering Chemistry	0
5	I	17IES1T02	Engineering Mechanics	0
6	I	17IES1T01	Computer Programming	0
7	II	17IHS1L01	English Communication Skills Lab - I	0
8	II	17IBS1L01	Engineering Chemistry Lab	0
9	II	17IES1L01	Computer Programming Lab	0
10	II	17IHS2T03	English - II	0
11	II	17IBS2T06	Mathematics - III	0
12	II	17IBS2T02	Mathematics - II	0
13	II	17IBS2T07	Engineering Physics	0
14	II	17IES2T03	Engineering Drawing	0
15	II	17IES2T07	Elements Of Mechanical Engineering	0
16	II	17IHS2L02	English Communication Skills Lab - II	0
17	II	17IBS2L02	Engineering Physics Lab	0
18	II	17IES2L02	Engineering Workshop And IT Workshop	0
19	III	17IBS3T09	Complex Variables	25
20	III	17IES3T16	Materials Science And Engineering	0
21	III	17IES3T17	General Geology	0
22	III	17IES3T18	Surveying And Offshore Structures	0
23	III	17IPT3T01	Chemical Process Calculations	0
24	III	17IES3T05	Basic Electrical And Electronics Engineering	0
25	III	17IES3L09	Basic Engineering Lab	0
26	III	17IES3L10	Geology And Surveying Lab	0
27	III	17IHS3A10	Employability Skills - I	100
28	III	17IHS3A09	Professional Ethics And Human Values	0
29	IV	17IBS4T10	Probability And Statistics	25
30	IV	17IPT4T02	Momentum Transfer	0
31	IV	17IPT4T03	Petroleum Geology	0
32	IV	17IPT4T04	Thermodynamics For Petroleum Engineers	0
33	IV	17IPT4T05	Process Heat Transfer	0
34	IV	17IHS4T05	Management Science	0
35	IV	17IPT4L01	Momentum Transfer Lab	0

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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
36	IV	171PT4L02	Process Heat Transfer Lab	0
37	IV	171HS4A11	Employability Skills - II	100
38	IV	171HS4A08	IPR And Patents	0
39	V	R1631011	Management Science	0
40	V	R1631271	Process Dynamics And Control	0
41	V	R1631272	Process Instrumentation	0
42	V	R1631273	Well Logging And Formation Evaluation	0
43	V	R1631274	Drilling Technology	72
44	V	R1631275	Mathematical Methods Lab	0
45	V	R1631276	Instrumentation Process Dynamics And Control Lab	0
46	V	R1631277	Drilling Fluids Lab	0
47	V	R1631278	Industrial Visits	0
48	V	R1631279	Mini Project-I	0
49	VI	R1632271	Well Completions Testing And Servicing	0
50	VI	R1632272	Petroleum Production Engineering	20
51	VI	R1632273	Petroleum Reservoir Engineering-I	0
52	VI	R1632274	Petroleum Refinery And Petrochemical Engineering	0
53	VI	R163227A	Electronoic Instrument	0
54	VI	R163227C	Big Data Analytics	0
55	VI	R163227D	Alternative Energy Sources For Automobiles	0
56	VI	R163227E	Computational Fluid Dynamics	0
57	VI	R163227B	Fundamentals Of Liquefied Natural Gas	0
58	VI	R1632276	Drilling Simulation Lab	0
59	VI	R1632277	Petroleum Analysis Lab	0
60	VI	R1632278	Petroleum Reservoir Engineering Lab	0
61	VI	R1632279	Summer Internship (4-6 Weeks)	0
62	VI	R1632280	Mini Project-II	0
63	VII	RT41271	Integrated Asset Management	0
64	VII	RT41272	Enhanced Oil Recovery Techniques	0
65	VII	RT41273	Hse And Fe In Petroleum Industry	0
66	VII	RT41274	Petroleum Reservoir Engineering Ii	0
67	VII	RT41016B	Fundamentals Of Petroleum Industry	0
68	VII	RT41016F	Green Technologies	0
69	VII	RT41016A	Energy Mangement	0
70	VII	RT41016C	Offshore Enginnering	0
71	VII	RT41016D	Pipeline Enginnering	0
72	VII	RT41279	Coal Bed Methane Engineering	0
73	VII	RT4127L	Petroleum Equipment Design And Simulation Lab	0
74	VII	RT4127M	Petroleum Reservoir Engineering Lab	0
75	VII	RT4127N	Presentation Of Sip Report	0
76	VIII	RT42275	Project	0
77	VIII	RT42271	Petroleum Economics And Regulations And Policies	0
78	VIII	RT42272A	Reservoir Modeling And Simulation	0

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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
79	VIII	RT42272B	Horizontal Well Technology	0
80	VIII	RT42272C	Lng-Processes And Transportation And Storage	0
81	VIII	RT42273A	Reservoir Stimulation	0
82	VIII	RT42273B	Subsea Engineering	0
83	VIII	RT42273C	Fundamentals Of Multiphase Flow	0
84	VIII	RT42274A	Natural Gas Hydrates	0
85	VIII	RT42274B	Advanced Natural Gas Engineering	0
86	VIII	RT42274C	Petroleum Biotechnology	0

Total number of courses in the academic year 2018-2019	= 86
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2018-2019	= 5
Percentage of syllabus revision carried out in the academic year 2018-2019 = $(5/86)*100$	= 5.81%


Program Coordinator


Head of the Department

Head of the Department
Department of Petroleum Technology
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Department of Petroleum Technology

Date: 24-11-2017

Minutes of the III meeting of BOS scheduled on 21-11-2017

The III meeting of the BOS of PT was held virtually on 21-11-2017 at 9.30 AM through Microsoft Teams. Prof R.Giri Prasad, Chairperson presided over the meeting.

Agenda 3.1: Welcome address by Chairperson- BOS

Dr. R. Giri Prasad, BOS Chairperson invited the distinguished members of BOS to the III BOS Meeting.

Agenda 3.2: Ratification of minutes of the previous Board of Studies meeting

The BOS members have ratified the points discussed in the previous Board of Studies meeting held on 29-05-2017.

Agenda 3.3: Discussion on proposed AR17 B. Tech (PT) Program - VI, VII & VIII semesters syllabus and ratification of the same.

The BOS members have ratified the AR17 B. Tech (PT) Program - VI, VII & VIII semesters syllabus

Discussion on proposed V, VI, VII & VIII semesters of B.Tech (PT) AR17 syllabus and finalization of the same

After long discussions with the BOS members on the course content of B. Tech V, VI, VII & VIII semesters Petroleum Technology Department subjects, the following suggestions are made:

1. Course content for Petroleum Reservoir Engineering-II, Deep Sea Production Systems & Process Intensification in Petroleum Industry is discussed and advised to delete the repeated topics and add the required topics which are needed for present Petroleum Engineering.
2. Finalization of the textbooks and reference books for B. Tech (PT) are approved and finalized.
3. Made changes in Process Intensification in Petroleum Industry subject (3, 4 & 5 units). The following changes are:
 - i. Downhole Separation Technology
 - ii. Applications of solar energy in offshore oil & gas operations.
 - iii. Applications of divided wall distillation technology in the separation of NGL.


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The following subjects are in the approved list:

V Semester

- i. Process Dynamics & Control (171PT5T06)
- ii. Petroleum Exploration (171PT5T07)
- iii. Process Instrumentation (171PT5T08)
- iv. Well Logging & Formation Evaluation (171PT5T09)
- v. Drilling Technology (171PT5T10)

Professional Elective – I

- i. Well Engineering & Design (171PT5E01)
- ii. Fundamentals of LNG (171PT5E02)
- iii. Pipeline Engineering (171PT5E03)

VI Semester

- i. Well Completions, Testing & Services (171PT6T11)
- ii. Petroleum Production Engineering (171PT6T12)
- iii. Petroleum Reservoir Engineering – I (171PT6T13)
- iv. Surface Production Operations (171PT6T14)

Professional Elective – II

- i. Petroleum Refining and Petrochemical Engineering (171PT6E04)
- ii. Storage and Transportation of Crude oil and Natural gas (171PT6E05)
- iii. Reservoir Stimulation (171PT6E06)

Professional Elective – III

- i. Natural Gas Hydrates (171PT6E07)
- ii. Natural Gas Engineering (171PT6E08)
- iii. Horizontal Well Technology (171PT6E09)

VII Semester

- i. Integrated Asset Management & Petroleum Economics (171PT7T15)
- ii. Petroleum Reservoir Engineering – II (171PT7T16)
- iii. IOR & EOR Techniques (171PT7T17)
- iv. Oil & Gas Processing Plant Design (171PT7T18)

Professional Elective – IV

- i. Coal Bed Methane Engineering (171PT7E10)
- ii. Offshore Engineering (171PT7E11)
- iii. Petroleum Corrosion Technology (171PT7E12)

Professional Elective – V

- i. Shale Gas Reservoir Engineering (171PT7E13)
- ii. Subsea Engineering (171PT7E14)
- iii. Reservoir Modeling & Simulation (171PT7E15)


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VIII Semester

Open Elective

- i. Green Technologies (171PT8O01)
- ii. Non- Conventional Sources of Energy (171PT8O02)
- iii. Alternative Energy Sources for Automobiles (171PT8O03)
- iv. Waste Water Treatment (171PT8O04)
- v. Computational fluid Dynamics (171PT8O05)
- vi. Process Intensification in Petroleum Industry (171PT8O06)
- vii. Disaster Management (171EC8O03)

Professional Elective – VI

- i. HSE & FE in Petroleum Industry (171PT8E16)
- ii. Reliability & Risk Management in Petroleum Operations (171PT8E17)
- iii. Deep Sea Production System (171PT8E18)

The percentage of new courses introduced in the academic year 2018-2019 for B. Tech (PT) is 2.32 %. The list of new courses is enclosed as Annexure-I.

The percentage of courses revised in this academic year 2018-2019 for B. Tech (PT) is 5.81% and M. Tech (PE) is 8.69 % .The list of courses revised is enclosed as Annexure-II

Agenda 3.4: Discussion on the proposed AR19 B. Tech (PT) Program & AR19 M. Tech (PE) program as per the guidelines of APSCHE & AICTE

The BOS members have ratified the AR19 B. Tech (PT) Program & AR19 M. Tech (PE) program as per the guidelines of APSCHE & AICTE.

Agenda 3.5: Discussion on B. Tech (PT) & M. Tech (PE) programs in which Choice Based Credit System (CBCS)/Elective course system is being implemented and ratification of the same.

The BOS members have ratified B. Tech (PT) & M. Tech (PE) programs in which Choice Based Credit System (CBCS)/elective course system.

Agenda 3.6: Discussion on the value-added courses offered for students and ratification of the same.

The BOS members have ratified the value-added courses offered for students.


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Agenda 3.7: Analysis of Students Feedback & Action Taken Report

The BOS members have discussed regarding analysis of Students Feedback & Action Taken Report.

Agenda 3.8: Analysis of Stakeholder's Feedback on Curriculum.

The BOS chairperson presented the feedback on curriculum from stake holders. The BOS members noted the same and approved the feedback on curriculum. The Action Taken Report on Stakeholders Feedback is enclosed as Annexure-III.

Agenda 3.9: Analysis of Results.

The BOS Chairperson presented the even and the odd semesters pass percentage for the A.Y.2017-2018 .The BOS members noted the same and appreciated the faculty.

Agenda 3.12: Any other item/s.

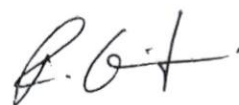
1. Approved the MOOCs courses in V & VI semesters
2. Approved the Employability skills -III & Employability skills – IV in V & VI semesters.
3. The BOS members advised wait for the University BOS meeting & reviewed the reduce of credits from 180 to 160.

Agenda 3.13: Scheduling of the next BOS meeting.

The next BOS meeting is tentatively scheduled in the month of July 2019.

Agenda 3.14: Vote of Thanks.

Dr. R. Giri Prasad, BOS Chairperson presented the Vote of thanks.



BOS Chairperson

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Annexure-I

List of New Courses in the Academic Year 2018-2019

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (PT)	III	171HS3A10	Employability Skills - I
2	B. Tech (PT)	IV	171HS4A11	Employability Skills - II


BOS Chairperson

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Annexure-II

List of Courses Revised in the Academic Year 2018-2019

S. No	Program	Semester	Course Code	Course Name
1.	B. Tech (PT)	III	171BS3T09	Complex Variables
2.	B. Tech (PT)	IV	171BS4T10	Probability and Statistics
3.	B. Tech (PT)	V	R1631274	Drilling Technology
4.	B. Tech (PT)	VI	R1632272	Petroleum Production Engineering
5.	M. Tech (PE)	II	172PE2E03	Flow Assurance
6.	M. Tech (PE)	II	172PE2E06	Characterization of Petroleum Oils


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Annexure III

Action Taken Report on Stakeholders Feedback in the Academic Year 2018-2019

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1.	3.12	Employer suggested to introduce skill oriented courses	As per discussions value added course with hand on training will be implemented.
2.	3.3	It is better to have deep knowledge on well design and its parameters	As per discussions the subject Well Engineering and Design introduced.
3.	3.3	Courses on conservation of management of energy will be added to the curriculum and students should have the basic idea about energy management.	As per discussions the subject will be implemented.
4.	3.6	Alumni recommended providing value-added courses in new fields.	For the benefit of the students, we execute several employability-related value-added courses.
5.	3.7	Inclusion and coverage of GATE oriented syllabus for the PT students that helps in attaining PSUs.	The major portion of GATE questions will be from core subjects like Exploration and Production. GATE oriented classes will be conducted in the above mentioned subjects.
6.	3.7	Suggested to conduct Guest lectures among the students	Based on alumni feedback, the department is going to conduct guest lectures from the reputed institutions and industry sector.
7.	3.3	Parents suggested practice oriented theory courses for job purpose	As per discussions we are initiated to implement from next academic year onwards
8.	3.3	Students suggested To increase Field based learning	As per discussions with dean academics Students were encouraged to pursue field visits in relevant for possible courses.

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9.	3.3	Suggested advanced courses in flow studies.	As per recommendations There was already a multiphase flow course in the program.
10.	3.5	Suggested that Coding courses are to be included in the curriculum so that students can gain the knowledge of coding for core area.	As per suggestions New value added courses implemented.
11.	3.5	Suggested to keep elective courses as per specialization tracks.	As per suggestions it will be implemented.
12.	3.4	Better to have more technical skills for getting employment.	According to suggestions received all streams will be introduced.
13.	3.4	Students require strong technical and thinking skills are in demand.	According to suggestions soft skills will be implemented.
14.	3.4	Better to increase Field based learning.	As per suggestions and discussions Students were encouraged to pursue field visits in relevant for project.
15.	3.2	Better to provide advanced courses in stream studies.	As per suggestions and discussions with experts necessary courses will be initiated.


BOS Chairperson

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