

# 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: M.Tech. in Petroleum Engineering

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	172PE1T01	Advanced Numerical Methods and Applied Statistics	0
2	I	172PE1T05	PE Stream: Offshore Drilling	0
3	I	172PE1T06	Non-PE Stream: Fundamentals of Petroleum Geology and Reservoir Engineering	0
4	I	172PE1T07	Reservoir stimulation	0
5	I	172PE1T08	Non-PE Stream: Petroleum Drilling and Production Engineering	0
6	I	172PE1T02	Transportation of Oil and Gas	0
7	Ι.	172PE1T03	Advanced EOR Techniques for field developments	0
8	I	172PE1T04	Project Management	0
9	I	172PE1L01	Advanced Numerical Methods and Applied Statistics (MATLAB Based) Lab	0
10	п	172PE2T09	Advanced Natural Gas Engineering	0
11	П	172PE2T10	Artificial Lift Techniques	0
12	П	172PE2T11	Operational Aspects of Well Testing	0
13	п	172PE2T12	Integrated Reservoir Management	0
14	п.	172PE2E01	Practical Reservoir Modeling and Simulation	0
15	п	172PE2E02	Optimization of Oil and Gas Production	0
6	п	172PE2E03	Flow Assurance	20
7	п	172PE2E04	Process Safety and Environmental Aspects in Petroleum Industry	0
8	II	9	Deep Water Technologies Aditya Engineering C	0

S.No	Semester	Course Code	Course Name	% of content revised for the existing year	
19	II	172PE2E06	Characterization of Petroleum Oils	20	
20	ш.	172PE2L02	Reservoir Simulation Lab	0	
21	Ш	172PE3C01	Comprehensive Viva-Voce	0	
22	ш	172PE3R01	Seminar - I	0	
23	IV	. 172PE4R02	Seminar - II	0	
24	IV	172PE3R02	Project Work Part I	0	
25	IV	172PE4R01	Project Work Part II	0	

Total number of courses in the academic year 2018-2019	= 25
Number of courses having revision in syllabus content >/= 20% in the academic year 2018-2019	= 2
Percentage of syllabus revision carried out in the academic year 2018-2019 = (2/25)*100	= 8.69%

Program Coordinator

Head of the Department

Head of the Department Department of Petroleum Technology Aditya Engineering College (A) SURAMPALEM-5

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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 21-11-2017at 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:

- 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:
  - Downhole Separation Technology
  - Applications of solar energy in offshore oil & gas operations.
  - Applications of divided wall distillation technology in the separation of NGL.

### 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

- 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

- 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.

### 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** 

Head of the Department Department of Petroleum Technology Aditya Engineering College SURAMPALEM-533 437



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# Department of Petroleum Technology 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** 

Head of the Department Department of Petroleum Technology Aditya Engineering College SURAMPALEM-533 437

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### Department of Petroleum Technology

#### 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

**BOS** Chairperson

Head of the Department Department of Petroleum Technology Aditya Engineering College SURAMPALEM-533 437

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# Department of Petroleum Technology

#### 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.



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

Head of the Department
Department of Petroleum Technology
Aditya Engineering College
SURAMPALEM-533 437