

ADITYA ENGINEERING COLLEGE

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

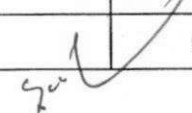
Program Name : B.Tech. in Petroleum Technology

Syllabus Revision for the Academic Year 2019-2020				
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	19IHS1T01	Communicative English	90
2	I	19IBS1T01	Differential Equations and Linear Algebra	20
3	I	19IBS1T02	Engineering Physics	60
4	I	19IES1T01	Programming for Problem Solving Using C	0
5	I	19IHS1L01	Communicative English Lab-I	0
6	I	19IBS1L01	Engineering Physics Lab	60
7	I	19IES1L01	Programming for Problem Solving Using C Lab	0
8	I	19IES1L02	Basic Engineering Workshop	0
9	I	19IMC1A01	Environmental Science	25
10	I	19IMC1A02	Constitution of India	100
11	II	19IBS2T05	Partial Differential Equations and Vector Calculus	40
12	II	19IBS2T06	Chemistry of Materials	70
13	II	19IES2T02	Engineering Graphics and Design	0
14	II	19IES2T03	Essential Electrical and Electronics Engineering	10
15	II	19IES2T04	Engineering Mechanics	0
16	II	19IHS2L02	Communicative English Lab-II	0
17	II	19IBS2L04	Engineering Chemistry Lab	50
18	II	19IES2L03	Essential Electrical and Electronics Engineering Lab	0
19	II	19IES2L13	Petroleum Technology Workshop	100
20	II	19IPR2P01	Engineering Exploration Project	100
21	III	17IES3T16	Materials Science and Engineering	0
22	III	17IES3T17	General Geology	0
23	III	17IES3T18	Surveying and Offshore Structures	0
24	III	17IPT3T01	Chemical Process Calculations	0
25	III	17IES3T05	Basic Electrical and Electronics Engineering	0
26	III	17IES3L09	Basic Engineering Lab	0
27	III	17IES3L10	Geology and Surveying Lab	0
28	III	17IHS3A10	Employability Skills - I	0

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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
29	III	171HS3A09	Professional Ethics and Human Values	0
30	IV	171BS4T10	Probability and Statistics	0
31	IV	171PT4T02	Momentum Transfer	0
32	IV	171PT4T03	Petroleum Geology	0
33	IV	171PT4T04	Thermodynamics for Petroleum Engineers	0
34	IV	171PT4T05	Process Heat Transfer	0
35	IV	171HS4T05	Management Science	0
36	IV	171PT4L01	Momentum Transfer Lab	0
37	IV	171PT4L02	Process Heat Transfer Lab	0
38	IV	171HS4A11	Employability Skills - II	0
39	IV	171HS4A08	IPR and Patents	0
40	V	171PT5T06	Process Dynamics and Control	0
41	V	171PT5T07	Petroleum Exploration	0
42	V	171PT5T08	Process Instrumentation	0
43	V	171PT5T09	Well Logging and Formation Evaluation	0
44	V	171PT5T10	Drilling Technology	0
45	V	171PT5E01	Well Engineering and Design	100
46	V	171PT5E02	Fundamentals of Liquefied Natural Gas	0
47	V	171PT5E03	Pipeline Engineering	0
48	V	171PT5L03	Instrumentation, Process Dynamics and Control Lab	0
49	V	171PT5L04	Drilling Fluids Lab	0
50	V	171HS5T06	Employability Skills - III	100
51	V	171PT5S01	MOOCs - I	0
52	VI	171PT6T11	Well Completions, Testing and Services	0
53	VI	171PT6T12	Petroleum Production Engineering	0
54	VI	171PT6T13	Petroleum Reservoir Engineering - I	0
55	VI	171PT6T14	Surface Production Operations	0
56	VI	171PT6E04	Petroleum Refining and Petrochemical Engineering	0
57	VI	171PT6E05	Storage and Transportation of Crude Oil and Natural Gas.	0
58	VI	171PT6E06	Reservoir Stimulation	0
59	VI	171PT6E07	Natural Gas Hydrates	0


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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
60	VI	171PT6E08	Natural Gas Engineering	0
61	VI	171PT6E09	Horizontal Well Technology	0
62	VI	171PT6L05	Petroleum Analysis Lab	0
63	VI	171PT6L06	Petroleum Reservoir Simulation Lab	0
64	VI	171HS6T07	Employability skills - IV	100
65	VI	171PT5S02	MOOCs - II	0
66	VII	R1641019	IPR and PATENTS	0
67	VII	R1641271	Integrated Asset Management	0
68	VII	R1641272	Petroleum Reservoir Engineering-II	0
69	VII	R1641273	Surface Production Operations	0
70	VII	R1641274	Oil and Gas Processing Plant Design	0
71	VII	R1641277	Petroleum Equipment Design and Simulation Lab	0
72	VII	R1641278	Petroleum Reservoir Simulation Lab	0
73	VII	R164127A	Natural Gas Hydrates	0
74	VII	R164127B	pipeline engineering	0
75	VII	R164127C	Horizontal well technology	0
76	VII	R164127D	Coal Bed Methane Engineering	0
77	VII	R164127E	Offshore engineering	0
78	VII	R164127F	Reservoir stimulation	0
79	VIII	R1642271	EOR Techniques	0
80	VIII	R1642272	HSE and FE in Petroleum Industry	0
81	VIII	R1642273	Petroleum Economics Policies and Regulations	100
82	VIII	R164227A	Shale Gas Reservoir Engineering	100
83	VIII	R164227B	Subsea Engineering	0
84	VIII	R164227C	Reservoir Modeling & Simulation	0
85	VIII	R1642275	Seminar(SIP Report Presentation)	0
86	VIII	R1642276	Project	0

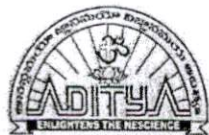
Total number of courses in the academic year 2019-2020	= 86
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2019-2020	= 16
Percentage of syllabus revision carried out in the academic year 2019-2020 = $(16/86)*100$	= 18.60%

Program Coordinator

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Head of the Department

Head of the Department



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Department of Petroleum Technology

Date: 24-07-2019

Minutes of the IV meeting of BOS scheduled on 20-07-2019

The IV meeting of the BOS of PT was held virtually on 20-07-2019 at 9.30 AM through Microsoft Teams. Prof R .Giri Prasad, Chairperson presided over the meeting.

Agenda 4.1: Welcome address by Chairperson- BOS

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

Agenda 4.2: 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 21-11-2017.

Agenda 4.3: Discussion and ratification of the Vision and Mission of the department and Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the Programs under the Department.

The BOS members have ratified the Vision and Mission of the department and Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the Programs under the Department.

Agenda 4.4: Discussion on proposed AR19 B. Tech (PT) Program structure, AR19 B. Tech (PT) Program – I & II semesters syllabus and ratification of the same.

The BOS members have ratified the AR19 B. Tech (PT) Program structure, AR19 B. Tech (PT) Program – I & II semesters syllabus

The committee has suggested a few minor modifications in the course content of VI, VII and VIII semester B. Tech AR19 and III and IV semester Honor and Minor degree B. Tech AR20 and approved the same.

1. BOS members expressed that the names of the courses in AR20 can be changed as
 - 1) Geology and sedimentology to principles for Petroleum Engineers and Corresponding lab
 - 2) Chemical Process calculations to Material and Energy Balance
 - 3) Momentum Transfer to Fluid Mechanics for Petroleum Engineers and corresponding lab
 - 4) Process Heat Transfer to Heat transfer operations and corresponding lab
2. BOS members expressed that Unit-V- palynology and its importance in oil exploration in Principles of Geology for Petroleum Engineers.


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3. BOS members suggested minor courses
 1. Fundamentals of Earth Science.
 2. Principles of Petroleum Geophysics
 3. Petroleum Geochemistry
 4. EIA of Oil Field Development
4. BOS members suggested Honor courses
 1. Well site Operations
 2. Drilling Fluids and Cementation for HPHT wells.
 3. Oil and Gas Management
 4. Phase Equilibrium for Petroleum Engineers.

Agenda 4.5: Discussion on proposed AR19 M. Tech (PE) Program structure, AR19 M. Tech (PE) Program – I & II semesters syllabus and ratification of the same.

The BOS members have ratified the AR19 M. Tech (PE) Program structure, AR19 M. Tech (PE) Program – I & II semesters syllabus.

Agenda 4.6: Discussion on the courses having focus on employability/entrepreneurship/skill development in the programs of B. Tech (PT), M. Tech (PE) and ratification of the same.

The BOS members have ratified the courses having focus on employability/entrepreneurship/skill development in the programs of B. Tech (PT), M. Tech (PE).

Agenda 4.7: Discussion on the new courses offered in the B. Tech (PT), M. Tech (PE) programs and ratification of the same.

The BOS members have ratified the new courses offered in the B. Tech (PT), M. Tech (PE) programs. The percentage of new courses introduced in the academic year 2019-2020 for B. Tech (PT) is 9.3% and M. Tech (PE) is 57.57%. The list of new courses is enclosed as Annexure-I.

Agenda 4.8: Discussion on the 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 the B. Tech (PT), M. Tech (PE) programs in which Choice Based Credit System (CBCS)/elective course system.

Agenda 4.9: 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 4.10: Discussion on the percentage of syllabus revision done in B. Tech (PT) & M. Tech (PE) programs in comparison with the previous regulations and ratification of the same.

The BOS members have ratified the percentage of syllabus revision done in the B. Tech (PT) & M. Tech (PE) programs. The percentage of courses revised in this academic year 2019-2020 for B. Tech (PT) is 18.06% and M. Tech (PE) is 52.94 %. The list of courses revised is enclosed as Annexure-II


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Agenda 4.11: Analysis of Results

The BOS Chairperson presented the even and the odd semesters pass percentage for the A.Y.2018-2019 .The BOS members noted the same and appreciated the faculty.

Agenda 4.12: Analysis of Students Feedback & Action Taken Report.

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

Agenda 4.13: 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 4.14: Any other item/s

1. BOS members expressed that introduced few courses with industry support in future.
2. BOS members appreciated Skill Oriented Courses in AR 20 Regulations.
3. BOS members expressed that to introduce oil and gas industry software related courses in professional Core.

Agenda 4.15: Scheduling of the next BOS meeting.

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

Agenda 4.16: Vote of Thanks

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



BOS Chairperson

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

Annexure-I

List of New Courses in the Academic Year 2019-2020

S. No	Program	Semester	Course Code	Course Name
1.	B. Tech (PT)	I	191MC1A02	Constitution of India
2.	B. Tech (PT)	II	191PR2P01	Engineering Exploration Project
3.	B. Tech (PT)	II	191ES2L13	Petroleum Technology Workshop
4.	B. Tech (PT)	V	171HS5T06	Employability Skills - II
5.	B. Tech (PT)	V	171PT5E01	Well Engineering & Design
6.	B. Tech (PT)	VI	171PT6E05	Storage & Transportation of Crude Oil and Natural Gas.
7.	B. Tech (PT)	VI	171HS6T07	Employability Skills - IV
8.	B. Tech (PT)	VIII	R164227A	Shale Gas Reservoir Engineering
9.	M. Tech (PE)	I	192PE1E02	CBM& Shale Gas Engineering
10.	M. Tech (PE)	I	192PE1E03	Transportation of Oil and Gas
11.	M. Tech (PE)	I	192PE1E04	Advanced Well Logging Techniques & Well Testing Analysis
12.	M. Tech (PE)	I	192HS1T01	Research Methodology and IPR
13.	M. Tech (PE)	I	192PE1L02	Drilling Simulation Laboratory
14.	M. Tech (PE)	II	192PE2E05	Advanced EOR Techniques
15.	M. Tech (PE)	II	192PE2E06	Advanced Well Completions
16.	M. Tech (PE)	II	192PE2E08	Advanced Horizontal Well Technology
17.	M. Tech (PE)	II	192PE2L04	Flow Assurance Laboratory
18.	M. Tech (PE)	I/II	192MC1A01/ 192MC2A01	English for Research Paper Writing
19.	M. Tech (PE)	I/II	192MC1A02/ 192MC2A02	Disaster Management
20.	M. Tech (PE)	I/II	192MC1A03/ 192MC2A03	Sanskrit for Technical Knowledge


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21.	M. Tech (PE)	I/II	192MC1A04/ 192MC2A04	Value Education
22.	M. Tech (PE)	I/II	192MC1A05/ 192MC2A05	Constitution of India
23.	M. Tech (PE)	I/II	192MC1A06/ 192MC2A06	Pedagogy Studiess
24.	M. Tech (PE)	I/II	192MC1A07/ 192MC2A07	Stress Management by Yoga
25.	M. Tech (PE)	I/II	192MC1A08/ 192MC2A08	Personality Development through Life Enlightenment Skills
26.	M. Tech (PE)	I/II	192MC1A09/ 192MC2A09	Soft Skills
27.	M. Tech (PE)	I/II	192MC1A01/ 192MC2A01	English for Research Paper Writing


BOS Chairperson

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Annexure-II

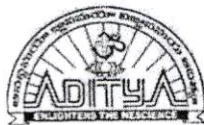
List of Courses Revised in the Academic Year 2019-2020

S. No	Program	Semester	Course Code	Course Name
1.	B. Tech (PT)	I	191HS1T01	Communicative English
2.	B. Tech (PT)	I	191BS1T01	Differential Equations and Linear Algebra
3.	B. Tech (PT)	I	191BS1T02	Engineering Physics
4.	B. Tech (PT)	I	191BS1L01	Engineering Physics Lab
5.	B. Tech (PT)	I	191MC1A01	Environmental Science
6.	B. Tech (PT)	II	191BS2T05	Partial Differential Equations and Vector Calculus
7.	B. Tech (PT)	II	191BS2T06	Chemistry of Materials
8.	B. Tech (PT)	II	191BS2L04	Engineering Chemistry Lab


BOS Chairperson

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Department of Petroleum Technology Annexure III

Action Taken Report on Stakeholders Feedback in the Academic Year 2019-2020

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1.	4.14	Employer Incorporation of more industry oriented courses to improve the student employability and knowledge of current industrial trends	Introduction of new courses like well engineering and mud logging
2.	4.14	Students should be encouraged to gain lifelong learning skills through MOOCs.	Students are encouraged to take SWAYAM courses in accordance with discussions with deans.
3.	4.4	It is better that if the student having lack of application of knowledge in the theoretical aspects and real world project based learning.	According to the feedback given, Engineering Exploration project will be introduced to the curriculum once after the discussion made with Professionals and experts.
4.	4.8	Students need to be industry ready with skill sets to gain job.	As per suggestion, additional skill programs in association with APSSDC will be initiated to make the student with technical skill.
5.	4.5	Better to have knowledge on MAT LAB and its applications	According to the suggestion, will be taught in the curriculum once after the discussion made with dean academics.
6.	4.5	Increase industrial training practically	Internship is made mandatory and thereby the students should take the industry training and to implement a project as part of Internship.
7.	4.8	It is better to add additional skill oriented programs to get core jobs.	As per suggestions received value added courses will be initiated
8.	4.8	It is better to acquire more advanced and better skills	As per discussions with dean academics some courses implemented as elective courses.


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9.	4.4	Suggested that Projects are to be developed and designed by the students that serves the social needs.	As per discussions with dean academics will be included in the curriculum.
10.	4.4	It is better student have basic knowledge on how it is implemented.	According to the feedback given, Engineering Exploration project will be introduced to the curriculum once after the discussion made with Professionals and experts.
11.	4.6	Employer Incorporation of more industry oriented courses to improve the student employability and knowledge of current industrial trends	As per suggestions and discussions introduction of new courses like advanced well logging techniques implemented
12.	4.8	Better to keep Interdisciplinary elective courses in syllabus	Dean academics has noted and kept in syllabus
13.	4.14	It is better to Increase industrial training practically	Internship is made mandatory and thereby the students should take the industry training and to implement a project.
14.	4.4	It is better to introduce more advanced courses	As per suggestions and discussions with dean academics some courses implemented in elective courses.
15.	4.14	It is better to add additional skill oriented programs to get core jobs.	As per suggestions received CBM and shale gas courses will be initiated



BOS Chairperson

Head of the Department

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