



# ADITYA ENGINEERING COLLEGE

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

## Program Name : M.Tech. in Petroleum Engineering

### Syllabus Revision for the Academic Year 2017-2018

| 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    | I        | 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   | II       | 172PE2T09   | Advanced Natural Gas Engineering                                           | 0                                          |
| 11   | II       | 172PE2T10   | Artificial Lift Techniques                                                 | 0                                          |
| 12   | II       | 172PE2T11   | Operational Aspects of Well Testing                                        | 0                                          |
| 13   | II       | 172PE2T12   | Integrated Reservoir Management                                            | 0                                          |
| 14   | II       | 172PE2E01   | Practical Reservoir Modeling and Simulation                                | 0                                          |
| 15   | II       | 172PE2E02   | Optimization of Oil and Gas Production                                     | 20                                         |
| 16   | II       | 172PE2E03   | Flow Assurance                                                             | 0                                          |

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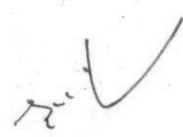
| S.No | Semester | Course Code | Course Name                                                    | % of content revised for the existing year |
|------|----------|-------------|----------------------------------------------------------------|--------------------------------------------|
| 17   | II       | 172PE2E04   | Process Safety and Environmental Aspects in Petroleum Industry | 0                                          |
| 18   | II       | 172PE2E05   | Deep Water Technologies                                        | 20                                         |
| 19   | II       | 172PE2E06   | Characterization of Petroleum Oils                             | 0                                          |
| 20   | III      | 172PE2L02   | Reservoir Simulation Lab                                       | 0                                          |
| 21   | III      | k0801       | Summer Internship                                              | 0                                          |
| 22   | IV       | l0801       | Presentation of Summer Internship Report                       | 0                                          |
| 23   | IV       | l0802       | Seminar on Advanced Topics in Petroleum Engineering            | 0                                          |

|                                                                                                  |         |
|--------------------------------------------------------------------------------------------------|---------|
| Total number of courses in the academic year 2017-2018                                           | = 23    |
| Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2017-2018 | = 2     |
| Percentage of syllabus revision carried out in the academic year 2017-2018 = $(2/23)*100$        | = 8.69% |

  
Program Coordinator

  
Head of the Department

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

Date: 01-06-2017

### Minutes of the I meeting of BOS scheduled on 29-05-2017

The I meeting of the BOS of PT was held virtually on 29-05-2017 at 9.30 AM through Microsoft Teams. Prof. R. Giri Prasad, Chairperson presided over the meeting.

#### Agenda 1.1: Welcome address by Chair Person.

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

#### Agenda 1.2: 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 1.3: Discussion on proposed AR17 Program Structures of B. Tech (PT), M. Tech (PE) ratification of the same

The BOS members have ratified the AR17 Program Structures of B. Tech (PT), M. Tech (PE).

The percentage of courses revised in this academic year 2017-2018 for B. Tech (PT) is 14.47% and M. Tech (PE) is 8.69 %. The list of courses revised is enclosed as annexure-I

The BOS members have discussed and ratified the all elective courses in the program structure.

#### Agenda 1.4: Discussion on proposed AR17 B. Tech (PT), M. Tech (PE) programs I, II & III semesters syllabus, and ratification of the same.

The BOS members have ratified the AR17 B. Tech, M. Tech, programs I, II & III semesters syllabus.

#### Agenda 1.5: Ratification of the proposed model question papers for sessional and external examinations of AR17 B. Tech (PT), M. Tech (PE) programs.

The BOS members have ratified the proposed model question papers for sessional and external examinations of AR17 B. Tech (PT), M. Tech (PE) programs.

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**Agenda 1.6: Finalization of Experts from reputed institutions for setting question paper and valuation of answer scripts.**

The BOS members have expressed regarding finalization of experts from reputed institutions for setting question paper and valuation of answer scripts.

**Agenda 1.7: Analysis of Results**

The BOS members have discussed regarding analysis of results of every semester.

**Agenda 1.8: Analysis of Students Feedback & Action Taken Report.**

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

**Agenda 1.9: 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-II.

**Agenda 1.10: Any other item/s.**

The BOS members have discussed and suggested to reduce Employability skills credits from 4 to 2 and to increase credits for main project.

The BOS members have discussed and suggested the courses which increases the opportunities of the students to get place in the core companies.

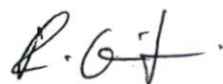
**Agenda 1.11: Scheduling of the next BOS meeting.**

The next BOS meeting is tentatively scheduled in the month of November 2017.

**Agenda 1.12: Vote of Thanks**

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

  
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BOS Chairperson  
Head of the Department  
Department of Petroleum Technology  
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## Department of Petroleum Technology

### Annexure-I

#### List of Courses Revised in the Academic Year 2017-2018

| S. No | Program      | Semester | Course Code | Course Name                            |
|-------|--------------|----------|-------------|----------------------------------------|
| 1.    | B. Tech (PT) | I        | 171HS1T01   | English - I                            |
| 2.    | B. Tech (PT) | I        | 171BS1T01   | Mathematics - I                        |
| 3.    | B. Tech (PT) | I        | 171HS1T02   | Environmental Studies                  |
| 4.    | B. Tech (PT) | I        | 171BS1T03   | Engineering Chemistry                  |
| 5.    | B. Tech (PT) | II       | 171HS1L01   | English Communication Skills Lab - I   |
| 6.    | B. Tech (PT) | II       | 171BS1L01   | Engineering Chemistry Lab              |
| 7.    | B. Tech (PT) | II       | 171ES1L01   | Computer Programming Lab               |
| 8.    | B. Tech (PT) | II       | 171HS2T03   | English - II                           |
| 9.    | B. Tech (PT) | II       | 171BS2T06   | Mathematics - III                      |
| 10.   | B. Tech (PT) | II       | 171BS2T02   | Mathematics - II                       |
| 11.   | B. Tech (PT) | II       | 171BS2T07   | Engineering Physics                    |
| 12.   | B. Tech (PT) | II       | 171HS2L02   | English Communication Skills Lab - II  |
| 13.   | B. Tech (PT) | II       | 171BS2L02   | Engineering Physics Lab                |
| 14.   | B. Tech (PT) | IV       | R1622271    | Probability and Statistics             |
| 15.   | B. Tech (PT) | IV       | R1622275    | Process Heat Transfer                  |
| 16.   | M. Tech (PE) | II       | 172PE2E02   | Optimization of Oil and Gas Production |
| 17.   | M. Tech (PE) | II       | 172PE2E05   | Deep Water Technologies                |

BOS Chairperson

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

### Annexure II

#### Action Taken Report on Stakeholders Feedback in the Academic Year 2017 2018

| S. No | Agenda Item No. | Stakeholders Recommended                                                            | Action Taken                                                                                                                                                   |
|-------|-----------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.    | 1.10            | Employer suggested employability skill courses                                      | As per discussions employability skills will be introduced                                                                                                     |
| 2.    | 1.1.3           | Suggested to introduce Student practical based learning                             | Students are encouraged to do internships and also been determined to schedule several industrial visits for students.                                         |
| 3.    | 1.9             | It is better to have electives in relation with the technological advancements      | According to suggestions technical courses will be introduced in the curriculum.                                                                               |
| 4.    | 1.3             | Suggested to offer more elective courses                                            | As per discussions elective courses are offered in course structure                                                                                            |
| 5.    | 1.8             | Faculty- student interaction may be enhanced.                                       | There is currently a faculty interaction hour when students can have their questions answered. Mentoring ideas also strengthen the faculty interaction period. |
| 6.    | 1.10            | Provide campus trainings on aptitude and reasoning                                  | As per suggestions and discussions made, placement training sessions will be conducted in association with APITA and APSSDC.                                   |
| 7.    | 1.10            | Requested to have many training in technical areas.                                 | It was decided to place more emphasis on developing technical expertise and communication abilities.                                                           |
| 8.    | 1.9             | Revision of curriculum & syllabi of B. Tech. programmes                             | The revised syllabi of Professional Elective courses offered to B.Tech. Petroleum Technology are given                                                         |
| 9.    | 1.6             | Change in question paper pattern of semester end examinations                       | To overcome the deficiency, new question paper patterns were formulated for continuous assessments and semester end examinations.                              |
| 10.   | 1.8             | Suggested to conduct orientation on faculty and students on outcome based education | It was decided to organise outcome-based education on its significance for professors and students.                                                            |

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|     |      |                                                                                 |                                                                                                                                                                                   |
|-----|------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11. | 1.3  | Suggested to revise drilling technology area for employability                  | As per suggestions and discussions made subject revision will be implemented                                                                                                      |
| 12. | 1.10 | Student participation is required for the project to be completed successfully. | Projects are encouraged for students, and various industry visits will be planned .                                                                                               |
| 13. | 1.6  | Change in question paper pattern of semester end examinations                   | As per suggestions and discussions with experts to overcome the deficiency, new question paper patterns were formulated for continuous assessments and semester end examinations. |
| 14. | 1.3  | Suggested to offer more elective courses                                        | As per suggestions and discussions with experts, elective courses will be introduced .                                                                                            |
| 15. | 1.10 | Many technical training sessions were requested                                 | As per suggestions and discussions with experts It was decided to prioritise the development of technical expertise and communication skills.                                     |



BOS Chairperson

Head of the Department  
Department of Petroleum Technology  
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## Department of Agricultural Engineering

Date: 01-06-2017

### Minutes of the I meeting of BOS scheduled on 29-05-2017

The following points are discussed and recommended by the BOS members of Agricultural Engineering Department.

#### Agenda 1.1: Welcome address by chairperson BOS

Mr. Y. V. Krishna Reddy, Chairperson of BOS invited all the distinguished members of BOS to the first BOS meeting.

#### Agenda 1.2: 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

Members of BOS ratified the Vision and Mission of the department, PEOs, POs and PSOs of the Programs under the Department.

#### Agenda 1.3: Discussion on proposed AR17 Program Structures of B.Tech and ratification of the same

The BOS members approved the AR 17 B.Tech (Ag.E) course structure and ratified the same.

The BOS members approved the AR17 B.Tech (Ag.E) course structure after making the following changes in the proposed syllabus:

1. Suggested to add MATLAB programming in C programming subject, as MATLAB is already offered in Mathematics it is not required again in C programming subject. With a clear discussion, no change was made.
2. Suggested to interchange the subject Principles of Soil Science & Agronomy for I-II to II-I and this subject was interchanged by Theory of Machines in I-II.
3. Suggested to include Probability and Statistics subject in course structure, since it is a new subject to be added, no decision was taken and kept it for next level meeting.
4. Suggested to change the course title and laboratory title of Surveying and Surveying Lab as Surveying and Leveling and Surveying and Leveling Lab because Leveling is also the part of syllabus.
5. Suggested to add Entrepreneurship Development Course in the structure and yet to be finalized after having discussion in Academic Council.
6. Suggested to change the course title of Electrical Systems as Electrical & Electronics Engineering. Suggestions were given to remove some part of Electrical Systems and add some portion about Electronics Engineering.

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7. Suggested to interchange the subject and lab of Fluid Mechanics and Open Channel Hydraulics from II-I to II-II.
8. Suggested to interchange Thermodynamics and Refrigeration Systems, Engineering Properties of Biological Materials and Food Quality from III-I to II-II. Since these are basic courses, suggestions were made to interchange. Theory of Structures and Farm Power and Tractor Systems were interchange in place of the above subjects. In order to match up with the laboratory subjects, the changes were made.
9. Suggested to interchange the subject Soil and Water Conservation Engineering from for III-I to III-II and it is interchanged by Irrigation and Drainage Engineering.
10. Suggested to interchange the subject Dairy & Food Engineering from III-II to IV-I and it is interchanged by Post Harvest Engineering for Horticultural Produce in III-II.
11. Suggested to add some topics on numerical methods in Computational Fluid Dynamics course.
12. Suggestions were made to shift the Elective course Food Packaging Technology from III-I to IV-I. It is interchanged by Agro-Industries and Bi-Product Utilization, also discussed the elective courses.
13. The BOS members noted the courses which are focusing on development of skill set of students.
  - The BOS members have discussed and approved the new courses introduced in all the B.Tech. (Ag.E), programme. The percentage of new courses introduced in the academic year 2017-2018 for B. Tech (Ag.E) is 25.93%. The list of new courses is enclosed as Annexure I.
  - BoS members discussed and ratified the percentage revision in the courses. The percentage of courses revised in the academic year 2017-2018 for B. Tech (Ag.E) is 38.27%. The percentage of the courses revised is enclosed as Annexure II.

**Agenda 1.4: Discussion on proposed AR17 B. Tech program of I & II semesters syllabus and ratification of the same**

BOS members approved B. Tech first year course syllabus of Theory of Machines.

**Agenda 1.5: Ratification of the proposed model question papers for sessional and external examinations of AR17 B. Tech programme**

BOS members have approved the pattern of the model papers for the internal and external examinations.

**Agenda 1.6: Finalization of Experts from reputed institutions for setting question paper and valuation of answer scripts**

BOS members accepted the list consisting of the names of reputed autonomous institutions/ Universities for setting question papers and valuation of answer scripts.

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#### **Agenda 1.7: Analysis of Results**

The BOS Chairperson presented the odd semester pass percentage for the A.Y.2016-2017. The BOS members noted the same and advised to adopt the practical sessions for the faculty to achieve better percentage.

#### **Agenda 1.8: Analysis of Students Feedback & Action Taken Report**

Student feedback and action report is presented by BOS Chairperson to the BOS members and BOS members approved the same.

#### **Agenda 1.9: Analysis of Stakeholder's Feedback on Curriculum**

The BoS chairperson presented the analysis report of Stakeholder's feedback on curriculum. The BOS members noted the same and advised to incorporate the suggestions as per the feasibility. The Action Taken Report is enclosed as Annexure III.

#### **Agenda 1.10: Any other item/s**

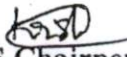
Suggested to arrange a field or industrial visits for necessary courses from V semester onwards.

#### **Agenda 1.11: Scheduling of the next BOS meeting**

After discussions with BOS members, the next BOS meeting will be planned in the month of November 2017.

#### **Agenda 1.12: Vote of Thanks**

Mr. Y. V. Krishna Reddy, BOS chairperson presented the Vote of thanks.

  
BoS Chairperson  
Head of the Department  
Department of Agricultural Engineering  
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