



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 Civil Engineering

Syllabus Revision for the Academic Year 2018-2019

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	171HS1T01	English - I	0
2	I	171BS1T01	Mathematics - I	0
3	I	171HS1T02	Environmental Studies	0
4	I	171BS1T03	Engineering Chemistry	0
5	I	171ES1T02	Engineering Mechanics	0
6	I	171ES1T01	Computer Programming	0
7	I	171HS1L01	English Communication Skills Lab - I	0
8	I	171BS1L01	Engineering Chemistry Lab	0
9	I	171ES1L01	Computer Programming Lab	0
10	II	171HS2T03	English - II	0
11	II	171BS2T02	Mathematics - II	0
12	II	171BS2T06	Mathematics - III	0
13	II	171BS2T07	Engineering Physics	0
14	II	171ES2T03	Engineering Drawing	0
15	II	171ES2T04	Basic Mechanical Engineering	0
16	II	171HS2L02	English Communication Skills Lab - II	0
17	II	171BS2L02	Engineering Physics Lab	0
18	II	171ES2L02	Engineering Workshop and IT Workshop	0

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19	III	171BS3T10	Probability and Statistics	25
20	III	171ES3T05	Basic Electrical and Electronics Engineering	8
21	III	171ES3T09	Strength of Materials - I	0
22	III	171CE3T01	Building Materials and Construction	17
23	III	171CE3T02	Surveying	33
24	III	171CE3T03	Fluid Mechanics	0
25	III	171CE3L01	Surveying Lab	50
26	III	171ES3L03	Strength of Materials Lab	50
27	III	171HS3A09	Professional Ethics and Human Values	0
28	III	171HS3A10	Employability Skills - I	100
29	IV	171CE4T04	Building Planning and Computer Aided Drawing	0
30	IV	171CE4T05	Concrete Technology	0
31	IV	171CE4T06	Engineering Geology	0
32	IV	171CE4T07	Hydraulics and Hydraulic Machinery	17
33	IV	171CE4T08	Strength of Materials – II	0
34	IV	171CE4T09	Structural Analysis - I	0
35	IV	171CE4L02	Fluid Mechanics and Hydraulic Machinery Lab	50
36	IV	171CE4L03	Concrete Technology Lab	0
37	IV	171HS4A08	Intellectual property rights and patents	0
38	IV	171HS4A11	Employability Skills - II	100
39	IV	171HS4A04	Managerial Economics and Financial Analysis	24
40	V	R1631011	Management Science	100
41	V	R1631012	Engineering Geology	0
42	V	R1631013	Structural Analysis -II	0

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43	V	R1631014	Design & Drawing of Reinforced Concrete Structures	0
44	V	R1631015	Transportation Engineering - II	0
45	V	R1631016	Concrete Technology Lab	0
46	V	R1631017	Geology Lab	0
47	V	R1631018	Transportation Engineering Lab	0
48	VI	R1632011	Design & Drawing of Steel Structures	0
49	VI	R1632012	Geotechnical Engineering - I	0
50	VI	R1632013	Environmental Engineering -I	0
51	VI	R1632014	Water Resource Engineering -I	0
52	VI	R1632015A	Electronic Instrumentation	100
53	VI	R1632015B	Data Base Management Systems	100
54	VI	R163201C	Alternative Energy Sources	100
55	VI	R163201D	Waste water Management	0
56	VI	R163227B	Fundamentals of Liquefied Natural Gas	100
57	VI	RT41016F	Green Fuel Technologies	100
58	VI	R163201C	Geotechnical Engineering Lab	0
59	VI	R1632017	Environmental Engineering Lab	0
60	VI	R1632018	Computer Aided Engineering Lab	0
61	VII	RT41011	Environmental Engineering – II	0
62	VII	RT41012	Prestressed Concrete	0
63	VII	RT41013	Construction Technology and Management	0
64	VII	RT41014	Water Resources Engineering-II	0
65	VII	RT41015	Remote Sensing and GIS Applications	0
66	VII	RT41016	(ELECTIVE - I) Ground Improvement Techniques	0

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67	VII	RT41017	Air Pollution and Control	0
68	VII	RT41018	Matrix methods of Structural Analysis	0
69	VII	RT41019	Urban Hydrology	0
70	VII	RT4101A	Advanced Surveying	0
71	VII	RT4101B	Interior Designs and Decorations	0
72	VII	RT4101L	Environmental Engineering Lab	0
73	VII	RT4101M	GIS & CAD Lab	0
74	VIII	RT42011	Estimating, Specifications & Contracts	0
75	VIII	RT42012A	(ELECTIVE –II) Engineering with Geo-synthetics	0
76	VIII	RT42012B	Environmental Impact Assessment and Management	0
77	VIII	RT42012C	Advanced Structural Engineering	0
78	VIII	RT42012D	Ground Water Development and Management	0
79	VIII	RT42012E	Traffic Engineering	0
80	VIII	RT42012F	Infrastructure Management	0
81	VIII	RT42013A	Elective-III: Advanced foundation Engineering	0
82	VIII	RT42013B	Solid waste Management	0
83	VIII	RT42013C	Earthquake Resistant Design	0
84	VIII	RT42013D	Water Shed Management	0
85	VIII	RT42013E	Pavement Analysis and Design	0
86	VIII	RT42013F	Green Buildings	0
87	VIII	RT42014A	Elective-IV: Soil Dynamics and Machine Foundations	0
88	VIII	RT42014B	Environmental and Industrial Hygiene	0
89	VIII	RT42014C	Repair and Rehabilitation of Structures	0
90	VIII	RT42014D	Water Resources System Planning and Management	0

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91	VIII	RT42014E	Urban Transportation Planning Safety Engineering	0
92	VIII	RT42014G	Bridge Engineering	0
93	VIII	RT42015	Project Work	0
Total number of courses in the academic year 2018-2019				= 93
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2018-2019				= 14
Percentage of syllabus revision carried out in the academic year 2018-2019 = $(\frac{14}{93}) \times 100$				= 15.05 %


Program Coordinator


Head of the Department

Head of the Department
Dept. of Civil Engineering
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Department of Civil Engineering

Date: 28-11-2018

Minutes of III BOS meeting conducted on 26-11-2018

The III meeting of the Board of Studies of Civil Engineering Department was held on 26/11/2018 at 10 AM in the Conference Hall, Ajivika, Bill Gates Bhavan AEC Mr. P.Ravi Kishore, Chairperson presided over the meeting.

The members discussed the agenda items and made the following resolutions.

Agenda 3.1: Welcome address by Chairman

Mr. P. Ravi Kishore, Chairman of BOS, invited all the distinguished members of BOS to the III BOS meeting.

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

The BOS members have ratified the points discussed in the previous Board of Studies meeting held on 04/11/2017.

Agenda 3.3: Discussion on proposed V, VI, VII and VIII semesters of B.Tech (CE) Programme (AR17) syllabus and finalization of the same.

- After long discussion with the BOS members on the programme structure of B.Tech (CE), the following suggestions are given:

VI SEMESTER

1. Geotechnical Engineering – I
 - Suggested to include the sentence 'basic concepts of engineering properties of soil.
 - Reference book editions should be updated.
2. Water resource engineering- II
 - Web link 3 is to be verified.
3. Pre stressed concrete
 - Text books new editions to be updated.
 - New code to be included.
4. Pavement analysis and design
 - Action verb - Design to be included in course outcomes.
 - Overall revision in outcomes.
 - IS code year to be mentioned, IRC 101.
5. Repair and rehabilitation of structures
 - Headings to be in Bold-Uniformity.
 - Unit – I to be elaborated related to environment.
6. Ground improvement techniques
 - Credits - 2 is to be modified as credits - 3.
 - UNIT 5 use grouting techniques instead of Grout techniques.
7. Finite Element method
 - Publication year to be mentioned in reference book 2.
8. Earthquake resistant Design
 - Add case studies at the end of the course.
9. Irrigation design drawing
 - Irrigation structures wooden models to be procured.



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- In Final exam pattern asked should be modified by given.

VII SEMESTER

1. Geotechnical Engineering – II
 - Suggested that in future I and II to be removed by specific names of the courses like foundation engineering and soil mechanics etc.
2. Environmental Engineering
 - Water quality standards IS10500-2012 to be included.
 - Text book Environmental Engineering by Howard Povey et al.
3. Remote sensing and GIS application
 - Equipment like separate lab and hand GPS Equipment need to be purchased.
4. Estimation specifications and contracts
 - Rate analysis by SSR method to be included.
5. Watershed management
 - Models to be specified.
6. Bridge Engineering
 - IRC code to be included.
 - Clarify inclusion of BGML Bridge in the course.
7. Environmental Impact and management
 - Unit-I full form of EIA to be given.
8. Environmental Engineering lab
 - Physical parameters like colour and odour to be included using basic sense organs.
 - BOD is to be included along with DO experiment.
9. GIS and CAD lab
 - In 2nd experiment cantilever beam is to be merged along with simply supported beam.

VIII SEMESTER

1. Solid and Hazardous waste management
 - Occupational health Hazards and public health and aesthetics are to be included in the syllabus.
2. Air pollution and control
 - Noise pollution to be included in the syllabus.

MOOCs

- Courses should be approved by the concerned HOD applicable to the current semester.
- Minimum duration of the course is to be specified by the HOD.
- MOOCs can be registered in the preceding semester for the current semester.
- The percentage of new courses introduced in the academic year 2018-19 for B. Tech (CE) is 3.23 %. The list of new courses is enclosed as Annexure-I.
- The percentage of courses revised in the academic year 2018-19 for B. Tech (CE) is 15.05 % and M. Tech (Structural Engineering) is 14.81%. The list of courses revised are enclosed as Annexure II.


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Agenda 3.4: General discussion on AICTE model curriculum,

- Department has presented a model draft curriculum (AR19) with reference to AICTE model curriculum.
- Detailed discussion on AICTE model curriculum (AR19) will be carried in next BOS meeting.

Agenda 3.5: Analysis of Students Feedback & Action Taken Report

BOS chairperson has expressed that the student feedback and action taken report process is done at the end of each semester. The BOS members noted the same.

Agenda 3.6: Analysis of the feedback on curriculum from stakeholders

The BOS Chairperson presented the analysis report of stakeholders' 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 3.7: Analysis of Results

The BOS chairperson presented the results. The BOS members appreciated the faculty for achieving better pass percentages.

Agenda 3.8: Any other item/s

1. The BOS members suggested that unless NPTEL course are not upgraded and it is not advisable to give the students credit for qualifying those courses. However, these courses can be used as a supplementary source of reading.
2. The BOS members discussed the courses that enhance the student entrepreneur skills.
3. Self-reading needs to be promoted, for which establishment of MOUs with some reputed universities; & courses offered by which will be considered by awarded credits if the students successfully complete those.
4. Seminars should be incorporated from the 1st year of the program.
5. The BOS members discussed the elective courses, suggested that Open Electives should be decided at the college level offered by various departments to various other Departments and they should be open to all.
6. Department LAB manual is to be included in the reference books for all LABS.


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Agenda 3.9: Discussion on the value-added courses offered for students and ratification of the same.

BOS members approved the list of value-added courses offered to students

Agenda 3.10: Scheduling of the next BOS meeting.

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

Agenda 3.11: Vote of Thanks

Prof. P. Ravi Kishore, BOS Chairperson thanked the members for the successful completion of BOS III.



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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 (CE)	V	R1631011	Management Science
2	B. Tech (CE)	III	171HS3A10	Employability Skills - I
3	B. Tech (CE)	IV	171HS4A11	Employability Skills – II

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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 (CE)	III	171BS3T10	Probability and Statistics
2	B. Tech (CE)	III	171CE3T02	Surveying
3	B. Tech (CE)	III	171CE3L01	Surveying Lab
4	B. Tech (CE)	III	171ES3L03	Strength of Materials Lab
5	B. Tech (CE)	IV	171CE4L02	Fluid Mechanics and Hydraulic Machinery Lab
6	B. Tech (CE)	IV	171HS4A04	Managerial Economics and Financial Analysis
7	M. Tech (Structural Engineering)	II	172SE2E02	Mechanics of Composite Material
8	M. Tech (Structural Engineering)	II	172SE2E09	Fracture Mechanics
9	M. Tech (Structural Engineering)	II	172SE2E10	Industrial Structures
10	M. Tech (Structural Engineering)	II	172SE2E12	Earth Retaining Structures

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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	3.2	Include the subject of Industrial Waste Management in the engineering.	We will try to add the mentioned subject based on the replies we have obtained.
		Pre-casting, pre-fabrication, and white topping are some of the most recent and innovative materials that can be learned through industry experience	We will organize the industry visit based on the reviews we have received.
		It is better to provide GATE classes in the after the college hours or in summer vacation.	Civil Department organizing the GATE training for the interested and fast Learning students.
2	3.9	Practical site knowledge required regarding surveying and mapping to be improved to students.	As a measure of improving the practical knowledge approach in students in solving the demine problems, total station camp report submission introduced in the III year B.Tech program.
		Open electives, which should be available to everyone, should be determined upon at the college level and provided by various departments to various other departments.	Depending on the feedback we receive, we will also let students choose elective from other disciplines.
		Give students the option to sign up for and take NPTEL courses online.	We will shortly have an event to raise awareness of NPTEL online courses

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3	3.9	Provision to opt for a greater number of electives.	Student are allowed to opt for more than one elective in a semester
	3.9	Suggest to conduct value added courses.	In response to comments, we will provide value-added courses.
	3.2	The student syllabus is insufficient to produce advanced learning results.	We will include trending topics in the curriculum's syllabus based on feedback.
4	3.2	Improve placements for the students.	As per suggestions, placement training oriented series conducted by APSSDC, APSCH and Infosys.
		Introduce a greater number of laboratories Classes.	Depending on the feedback, we'll start offering more lab classes.
		Introduction additional software's, such as water resources and water quality parameters	We will introduce software for water resources engineering based on the comments.



BOS Chairperson
Head of the Department
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