



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 Structural Engineering

Syllabus Revision for the Academic Year 2020-2021


S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	192ST1T01	Theory of Elasticity	0
2	I	192ST1T02	Structural dynamics	0
3	I	192ST1T03	Advanced Concrete Technology	0
4	I	192ST1E03	Design of RCC Foundations	0
5	I	192ST1E01	Matrix Analysis of Structures	0
6	I	192ST1E02	Analytical & Numerical Method for Structural Engineering	0
7	I	192ST1E05	Repair & Rehabilitation of Structures	0
8	I	192ST1E04	Bridge Engineering	0
9	I	192ST1E06	Advanced Reinforced Concrete Design	0
10	I	192ST1L01	Advanced Concrete Technology Laboratory	0
11	I	192ST1L02	Advanced Structural Engineering Laboratory	0
12	II	192ST2T04	Finite Element Methods in Structural Engineering	0
13	II	192ST2T05	Theory of Plates and Shells	0
14	II	192ST2E07	Stability of Structures	0
15	II	192ST2E08	Advanced Steel Design	0
16	II	192ST2E09	Analysis of offshore Structures	0
17	II	192ST2E10	Earthquake Resistant Design of Buildings	0
18	II	192ST2E11	Precast and Prefabricated Structures	0
19	II	192ST2E12	Earth Retaining Structures	0
20	II	192ST2L03	Computer Aided Design Laboratory	0


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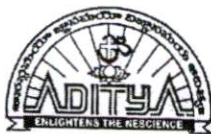
22	II	192ST2P01	Mini Project With Seminar	0
23	I/II	C1A01/192MC2	English for Research Paper Writing	0
24	I/II	C1A02/192MC2	Disaster Management	0
25	I/II	C1A03/192MC2	Sanskrit for Technical Knowledge	0
26	I/II	C1A04/192MC2	Value Education	0
27	I/II	C1A05/192MC2	Constitution of India	0
28	I/II	C1A06/192MC2	Pedagogy Studies	0
29	I/II	C1A07/192MC2	Stress Management by Yoga	0
30	I/II	C1A08/192MC2	Personality Development through Life Enlightenment Skills	0
31	I/II	C1A09/192MC2	Soft Skills	0
32	3	192ST3E13	Design of Pre-stressed Concrete structures	33
33	3	192ST3E14	Structural Health Monitoring	100
34	3	192ST3E15	Industrial Structures	0
35	3	19STMOOC1	MOOCS-I*	100
36	3	---	MOOCs-II #	100
37	3	192PD3O01	Renewable Energy Technologies	100
38	3	192PD3O02	Hybrid Electric Vehicles	100
39	3	192PD3O03	Energy Audit and conservation Management	100
40	3	192PD3O04	Neural Networks and Fuzzy Logic	100
41	3	192PD3O05	Industrial Safety	100
42	3	192PD3O06	Composite Materials	100
43	3	192TE3O01	Energy Systems	100
44	3	192TE3O02	Fuels and Combustion	100
45	3	192TE3O04	IC Engines	100
46	3	192TE3O05	Automotive Technology	100
47	3	192ES3O01	Embedded System Design	100

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49	3	192ES3O03	Programming Languages for Embedded Systems	100
50	3	192ES3O04	Sensors & Actuators	100
51	3	192VD3O01	Physical Design Automation	100
52	3	192VD3O02	VLSI Technology	100
53	3	192VD3O03	Nano-electronics	100
54	3	192CS3O01	Python Programming (CSE)	100
55	3	192CS3O02	Principles of Cyber Security	100
56	3	192CS3O03	Internet of Things	100
57	3	192CS3O04	Machine Learning	100
58	3	192CS3O05	Artificial Intelligence	100
59	3	192CS3O06	Deep Learning	100
60	3	192PE3O01	Introduction to Petroleum Engineering	100
61	3	192PE3O02	Process Intensification	100
62	3	192PE3O03	Fundamentals of Liquefied Natural Gas	100
63	3	192PE3O04	Subsea Engineering	100
64	3	192PE3O06	HSE in Petroleum Industry	100
65	3	192ST3P02	Dissertation-I/ Industrial Project	100
66	4	192ST4P03	Dissertation – II	0
Total number of courses in the academic year 2020-2021				= 66
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2020-2021				= 32
Percentage of syllabus revision carried out in the academic year 2020-2021 = $(32/66)*100$				= 48.08%


Program Coordinator


Head of the Department
Principal
Aditya Engineering College
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Head of the Department
Dept. of Civil Engineering
ADITYA ENGINEERING COLLEGE 'AC'



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Department of Civil Engineering

Date: 10-10-2020

Minutes of the VI meeting of BOS scheduled on 10-10-2020

The VI meeting of the BOS of Civil Engineering was held virtually on 10-10-2020 from 09:30 AM via Microsoft teams. Mr. P.Ravi Kishore, chairman presided over the meeting. The following points were discussed and recommended by the BOS members for approval by the Academic Council.

Agenda 6.1: Welcome address by Chairperson

Mr. P. Ravi Kishore, Chairperson of BOS, invited all the distinguished members of BOS to the VI BOS meeting.

Agenda 6.2: Ratification of minutes of the previous Board of Studies meeting.

- Discussed regarding the minutes of the previous board of studies meeting and the members have ratified the same.

Agenda 6.3: 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.

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

Agenda 6.4: Discussion on proposed AR19 B.Tech (CE) IV and V semester and AR19 M.Tech (Structural Engineering) syllabus and finalisation of the same.

- BOS members approved and ratified AR19 M.Tech (Structural Engineering) III and IV Semester syllabus. After detailed discussions with the BOS members on the AR19 B.Tech (CE) IV semester & V semester syllabus, the following suggestions are made for ratification

IV Semester:

- Construction Materials and Concrete Technology
 - Latest patterns in Concrete Technology to be included like, importance of blended concrete, nano-concrete
 - Testing procedures should be incorporated with ACT, water penetrating and chloride penetrating tests
- Strength of Materials - II
 - In textbooks S. Ramamrutham to be included
- Hydraulics and Hydraulic Machinery
 - In textbooks latest editions with publications years to be included

V Semester:

- Design and Drawing of Reinforced Concrete Structures
 - In textbooks N.Subrahmanyam to be removed and AK Jain and Devdas Pillai to be included


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- In reference books include textbook authored by Krishna raj, Thayal & Goel and N. Subrahmanyam
- Geotechnical Engineering Lab
 - BC Punmia book to be added in reference books
- Professional Elective - I
 - Constructional Technology and Management
 - Legal requirements to be taken in consideration
 - Quality management system to be included
 - Environmental health and safety to be included
 - Airport planning and design
 - Safety measures in airport to be included
 - Tabletop airports (Cochin) also to be included
 - Urban Hydrology
 - Surface water run-off management to be included
 - Ground water recharge to be included
 - Environmental pollution and control
 - Industrial bi-product management to be included
 - Safety measures related to employees exposure to illumination in industries to be included

Agenda 6.5: Discussion on proposed AR20 B.Tech (CE) First Year Program structure and ratification of the same.

- The members of BOS ratified the AR20 B.Tech(CE) First Year Program structure.

Agenda 6.6: Discussion on proposed AR20 B.Tech (CE) Program – I & II semesters syllabus and ratification of the same.

- The members of BOS ratified the AR20 B.Tech(CE) Program – I & II Semesters Syllabus.

Agenda 6.7: Discussion on proposed AR 19 M.Tech (Structural Engineering) Program – III & IV semesters syllabus and ratification of the same.

- The members of BOS ratified the AR 19 M.Tech (Structural Engineering) Program – III & IV semesters syllabus.

Agenda 6.8: Discussion on the courses having focus on employability/ entrepreneurship/ skill development in the programmes of B.Tech (CE) and M.Tech (Structural Engineering) and ratification of the same.

- The members of BOS ratified the courses having focus on employability/entrepreneurship/skill development in the AR20 B.Tech (CE) program.


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Agenda 6.9: Discussion on the new courses offered in the B.Tech (CE) and M.Tech (Structural Engineering) programmes and ratification of the same

Members of BOS noted the new courses offered in the B.Tech (CE) and M.Tech (Structural Engineering) programs and ratified the same. The percentage of new courses introduced in the academic year 2020-21 for B. Tech (CE) is 7.61% and M. Tech (Structural Engineering) is 11.90%. The list of new courses during the academic year 2020-2021 enclosed as Annexure-I.

Agenda 6.10: Discussion on the B.Tech (CE) and M.Tech (Structural Engineering) programs in which Choice Based Credit System(CBCS)/elective course system is being implemented and ratification of the same.

Members of BOS ratified the Choice Based Credit System (CBCS)/elective course system that is being implemented in B.Tech (CE) and M.Tech (Structural Engineering) programs and ratified the same.

Agenda 6.11: Discussion on the value-added courses offered for students and ratification of the same.

Members of BOS ratified the various value- added courses identified for the students to be offered and suggested to include topics related to thrust areas.

Agenda 6.12: Discussion on the percentage of syllabus revision done in the B.Tech (CE) and M.Tech (Structural Engineering) programs and ratification of the same.

- The syllabus revisions were done in B. Tech (CE) and M. Tech (Structural Engineering) based on the stakeholders' feedback on Curriculum. The BOS members have approved all the syllabus revisions in B. Tech (CE) and M. Tech (Structural Engineering). The percentage of courses revised in the academic year 2020-21 for B.Tech (CE) is 10.86 % and M.Tech(Structural Engineering) is 48.08%. The list of courses revised is enclosed as Annexure-II.

Agenda 6.13: Discussion on Analysis of Results.

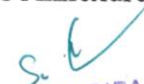
- The BOS Chairperson presented the even and odd semesters pass percentage of the A.Y. 2019-2020. The BOS members noted the same and appreciated the faculty for obtaining 89% in V semester.

Agenda 6.14: Analysis of student feedback & action taken report

- BOS Chairperson expressed that the student feedback & action taken report process was initiated at end of each semester. BOS members noted the same.

Agenda 6.15: 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.


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Agenda 6.16: Any other item with the approval of Chairperson.

- Suggested to mention that a minimum of one week duration for Survey Camp as Special note.
- Suggested to release the list of MOOC courses in advance by college.
- Suggested to include/highlight the contents that are to be delivered by industry experts in syllabus of each course (if any).
- Suggested to include "mode of delivery" (ex: chalk and talk, PPT, flip classroom and tutorial hour) in lesson plan (Content wise).

Agenda 6.17: Scheduling of next Board of Studies of meeting.

- Discussed regarding the scheduling of the next BOS meeting. The next BOS meeting would be in the month of March/April-2021.

Agenda 6.18: Vote of Thanks.

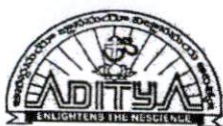
- Vote of thanks was presented by Mr. P. Ravi Kishore BOS Chairperson.



BOS Chairperson
Head of the Department
Dept. of Civil Engineering
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Annexure-I

List of new courses in the academic year 2020-2021

S. No	Program	Semester	Course Code	Course Name
1.	B. Tech (CE)	III	191MC3A04	Essence of Indian Traditional Knowledge
2.	B. Tech (CE)	IV	191MC4A06	Biology for Engineers
3.	B. Tech (CE)	III	191ES3T10	Internet of Things
4.	B. Tech (CE)	III	191CE3T04	Computer aided civil engineering drawing
5.	B. Tech (CE)	VII	171CE7E11	Watershed Management
6.	B. Tech (CE)	VII	171CE7E12	Design of Tall Buildings
7.	B. Tech (CE)	VIII	171CE8O07	Green Engineering Systems
8.	M. Tech (Structural Engineering)	III	192ST3E14	Structural Health Monitoring
9.	M. Tech (Structural Engineering)	III	192ST3O01	Repair & Rehabilitation of Structures
10.	M. Tech (Structural Engineering)	III	192ST3O02	Green Building Systems
11.	M. Tech (Structural Engineering)	III	192ST3O03	Basic Concrete Technology
12.	M. Tech (Structural Engineering) Structural Engineering	III	192ST3O04	Basic Foundation Engineering

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Annexure II

List of courses revised in the academic year 2020-2021

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CE)	I	201ES1I01	Engineering Graphics
2	B. Tech (CE)	III	191BS3T11	Integral transforms and applications of Partial Differential Equations
3	B. Tech (CE)	IV	191BS4T16	Numerical methods & Statistical Techniques (CE, ME, Ag. E)
4	M. Tech (Structural Engineering)	III	192ST3E13	Design of Prestressed Concrete


BOS Chairperson

Head of the Department
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Annexure III

Action taken report on Stakeholders Feedback in the Academic Year 2020-2021

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	6.7	Multidisciplinary work nature is to be habituated to the students	As the recruitment trends are demanding for more and more software related core knowledge implementation skills, emphasis is given to software related courses like 3D modelling using Revit a skill-oriented course in the AR20 Curriculum.
	6.3	Expertise in the specific areas	Students securing greater than 8 CGPA are provided with an option of a warding a B.Tech Honours degree in a specialized area of Civil Engineering by completing four additional courses in each semester from fourth semester Onwards.
	6.15	More focus on practical and field knowledge	As a measure of improving the practical approach in students in solving the domain problems, compulsory Surveying camp report submission introduced in the UG level of AR20 B.Tech program.
2	6.10	Students shall be counselled and guided for continuing their higher studies not only in India, but also abroad.	Students reformed that APSSDC initiated master's Program in Germany in association Indo-Euro Synchronization and German varsity for advanced studies.
	6.7	Suggested to incorporate the latest software for skill development of students and making the industry ready	Incorporation of skill-oriented courses like, ANSYS Civil in AR20 Curriculum.
	6.7	It was suggested that improvised experiments such as 3-D photogrammetric and contour mapping be included in the lab.	Based on your feedback, we will revise the lab syllabus.

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3	6.9	Need to incorporate latest developments in industry recommended subjects.	The latest course like safety engineering was included under open electives in the curriculum.
	6.7	Suggested students to participate in skill development programs to sustain in industry.	Students were encouraged to register for certification courses in Google Sketch up, STAADPRO conducted in college.
	6.7	Suggested to give students an idea of the importance of civil engineering and job and research opportunities.	We offer a training program for freshers.
4	6.7	Better to skill-oriented courses to students.	As per the suggestions skill-oriented classes are initiated.
	6.7	Guest lectures are required to achieve the goals.	Guest lecturers will visit the college and give motivational speeches based on suggestions.
	6.15	To provide more insights, various teaching and learning methods must be used.	Various teaching methods, such as quizzes, role plays, seminars, PPTs, and so on, are being implemented in response to suggestions.



BOS Chairperson

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