



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 Agricultural 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	171ES2T08	Theory of Machines	0

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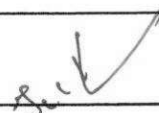
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16	II	171HS2L02	English Communication Skills Lab – II	0
17	II	171BS2L02	Engineering Physics Lab	0
18	II	171ES2L02	Engineering Workshop & IT Workshop	0
19	III	171AG3T01	Principles of Soil Science and Agronomy	20
20	III	171AG3T02	Renewable Energy Sources	20
21	III	171AG3T03	Ground Water Hydrology, Wells and Pumps	10
22	III	171ES3T19	Properties and Strength of Materials	20
23	III	171ES3T20	Electrical and Electronics Engineering	25
24	III	171ES3T21	Surveying and Leveling	0
25	III	171AG3L01	Soil Science and Agronomy Field Lab	10
26	III	171ES3L11	Surveying and Leveling Lab	0
27	III	171HS3A10	Employability Skills - I	100
28	III	171HS3A09	Professional Ethics and Human Values	0
29	IV	171AG4T04	Thermodynamics and Refrigeration Systems	0
30	IV	171AG4T05	Heat and Mass Transfer	20
31	IV	171ES4T25	Fluid Mechanics and Open Channel Hydraulics	20
32	IV	171AG4T06	Soil Mechanics	0
33	IV	171AG4T07	Surface Water Hydrology	20
34	IV	171AG4T08	Engineering Properties of Biological Materials and Food Quality	0
35	IV	171ES4L14	Fluid Mechanics and Open Channel Hydraulics Lab	10
36	IV	171ES4L15	Machine Drawing and Computer Graphics Lab	0

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37	IV	171HS4A11	Employability Skills – II	100
38	IV	171HS4A08	Intellectual Property Rights and Patents	0
39	V	R1631351	Thermodynamics and Refrigeration systems	0
40	V	R1631352	Soil and Water Conservation Engineering	0
41	V	R1631353	Agricultural Process Engineering	0
42	V	R1631354	Engineering Properties of Biological Materials and Food Quality	0
43	V	R1631355	Managerial Economics & Financial Analysis	0
44	V	R1631356	Agricultural Process Engineering Lab	0
45	V	R1631357	Advanced English Communications Skills Lab	0
46	V	R1631358	Field Operation and Maintenance of Tractors Lab - I	0
47	V	R1631029	IPR & Patents	0
48	VI	R1632029	Professional Ethics & Human Values	0
49	VI	R1632351	Irrigation and Drainage Engineering	0
50	VI	R1632352	Farm Machinery and Equipment - I	0
51	VI	R1632353	Design of Soil Water Conservation and Farm Structures	0
52	VI	R1632354	Dairy and Food Engineering	0
53	VI	R163235A	Operations Research	0
54	VI	R163235B	Digital Control Systems	0
55	VI	R163235C	Robotics & Automation	0
56	VI	R163235D	Industrial Pollution Control Engineering	0
57	VI	R163235E	Finite Element Method	0


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58	VI	R163235F	Water Resources System Planning and Management	0
59	VI	R1632356	Farm Machinery Lab - 1	0
60	VI	R1632357	Field Operation and Maintenance of Tractors Lab - 2	0
61	VI	R1632358	Soil and Water Engineering Lab	0
62	VII	RT41351	Micro irrigation engineering	0
63	VII	RT41352	Farm machinery and equipments II	0
64	VII	RT41353	Post harvest engineering for horticulture produce	0
65	VII	RT41354	Mechanical measurements and instrumentation	0
66	VII	RT41355	Seed processing and storage engineering	0
67	VII	RT41356	Managerial economics & financial Analysis	0
68	VII	RT41357	Food processing plant design and layout	0
69	VII	RT41358	Watershed management	0
70	VII	RT41359	Food packaging technology	0
71	VII	RT41310	Computational Fluid Dynamics	0
72	VII	RT4135L	Field operation and maintenance of tractors and farm machinery lab	0
73	VII	RT4135M	Dairy and food engineering lab	0
74	VIII	RT42351	Design of agricultural machinery	0
75	VIII	RT42352	Agro industries and bi-product utilization	0
76	VIII	RT42353A	GIS and remote sensing	0
77	VIII	RT42353B	Human engineering and safety	0
78	VIII	RT42353C	Production Technology of Agricultural Machinery	0

79	VIII	RT42354C	Principles of entrepreneurship	0
80	VIII	RT42354A	Minor Irrigation and Command area development	0
81	VIII	RT42354B	Hydraulic Devices and Control	0
82	VIII	RT42355	Project work	0
Total number of courses in the academic year 2018-2019				82
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2018-2019				9
Percentage of syllabus revision carried out in the academic year 2018-2019 = $(9/82) \times 100$				10.97


Program Coordinator


Head of the Department
Head of the Department
Department of Agricultural Engineering
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Aditya Nagar, ADB Road, Surampalem-533 437, Near Kaklnada, E.G.Dt., Ph: 99498 76662, 99897 76661

Department of Agricultural Engineering

Date: 14-11-2018

Minutes of the III meeting of BoS scheduled on 10-11-2018

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

Agenda 3.1: Welcome address by chairperson BoS

Mr. Y.V. Krishna Reddy, Chairman of BoS, invited all the distinguished members of BoS to the second BoS meeting.

Agenda 3.2: Discussion on proposed AR17 B. Tech program of V, VI, VII & VIII semesters syllabus and ratification of the same.

After long discussions with BoS members on Proposed course syllabus of each course in B. Tech V, VI, VII & VIII semesters; The following suggestions are made:

1. Suggested to keep one reference book for earth moving equipment in Farm Machinery and Equipment-I course in VI semester.
2. Suggested to keep test reports of Farm Machinery Equipment in references for FME lab in VI semester.
3. Suggested to remove the testing part in FME-II, Unit-V in VII semester.
4. Suggested to keep year last in references.
5. Suggested to change the terminology in Design of Agricultural Machinery course VIII semester.
6. Suggested to include all agronomical practices in unit -III of Soil & Water Conservation subject in VI semester.
7. Suggested to give the priority for new edition text books.
8. Suggested to include latest technologies using in the field of Agricultural Engineering with respect to subject.
9. Suggested to add Soil & Water Conservation manual in Watershed Management subject in VIII semester.
10. Suggested to have maximum of 12 experiments including augmented experiments in Labs.

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11. Suggested to remove the Week 1, Week 2..... and have only list of experiments with numbering.
12. Suggested to merge Farm Machinery and Equipment 1& 2 subjects together can form as Farm Machinery and Equipment subject as well as FM labs also.
13. Suggested to change the units order if required.
14. Suggested that, information and Communications Technology (ICT) in Agriculture subject should be added in VII semester.
15. In addition to that few subjects like Matlab, ANN, AI and etc., should be added in VI and VIII semesters.
16. The BOS members have discussed and approved the new courses introduced in all the B.Tech. (Ag.E), program. The percentage of new courses introduced in the academic year 2018-2019 for B. Tech (Ag.E) is 2.44%. The list of new courses is enclosed as Annexure I.
17. BoS members discussed and ratified the percentage revision in the courses. The percentage of courses revised in the academic year 2018-2019 for B. Tech (Ag.E) is 10.97%. The percentage of the courses revised is enclosed as Annexure II.
18. The BOS chairperson discussed the courses related to enhance the employability of the students.

Agenda 3.3: Discussion on the proposed AR19 B.Tech (Ag.E) program as per the guidelines of APSCHE & AICTE

1. Watershed Management subject will reduce to 2 credits instead of 3.
2. Aquaculture Engineering subject will reduce to 2 credits instead of 3.
3. Soil and Water Conservation engineering subject will reduce to 2 credits instead of 3.
4. Micro Irrigation Engineering subject will reduce to 2 credits instead of 3.
5. Design of Agricultural Machinery subject will reduce to 2 credits instead of 3.
6. Engineering Properties of Biological Materials and Food Quality subject will reduce to 2 credits instead of 3.
7. Greenhouse and Polyhouse Technology subject will reduce to 2 credits instead of 3.
8. Suggested to combine Farm Machinery and Equipment I & II as single subject.
9. Suggested to separate DAM into two subjects: First part contains Machine Design subject while second one contains Farm Machinery Design and Equipment.
10. Suggested to combine Farm Machinery Lab I & II as a single lab.

11. Suggested to replace Farm Machinery Lab-II by Field Operations & Maintenance of Tractor & Farm Machinery lab.
12. Suggested to rearrange and rename FOMT Lab-I as FOMT lab.
13. BOS members discussed the Elective courses, suggested to rearrange Professional Elective subjects in V, VI, VII, VIII semesters.

Agenda 3.4: 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 3.5: Analysis of Stakeholder's Feedback on Curriculum

The stakeholder's feedback on curriculum was discussed and applicable considerations were incorporated. 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 3.6: Analysis of Results

The BoS Chairperson presented the odd semester pass percentage for the A.Y.2016-2017.

Agenda 3.7: Any other item/s

Suggested to guide the students in in GATE/ Public exams orientation from V semester onwards for their career development.

Agenda 3.8: Scheduling of the next BoS meeting

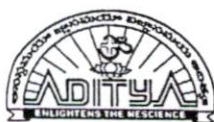
After discussions with BoS members, the next BoS meeting will be planned in the month of July 2018.

Agenda 3.9: Vote of Thanks

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


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BoS Chairperson
Head of the Department
Department of Agricultural Engineering
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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 (Ag.E)	III	171HS3A10	Employability Skills - I
2	B. Tech (Ag.E)	IV	171HS4A11	Employability Skills - II


BoS Chairperson

Head of the Department

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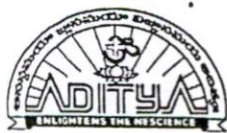
Annexure-II

List of Revised Courses in the Academic Year 2018-2019

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (Ag.E)	III	171AG3T01	Principles of Soil Science and Agronomy
2	B. Tech (Ag.E)	III	171AG3T02	Renewable Energy Sources
3	B. Tech (Ag.E)	III	171ES3T19	Properties and Strength of Materials
4	B. Tech (Ag.E)	III	171ES3T20	Electrical and Electronics Engineering
5	B. Tech (Ag.E)	IV	171AG4T05	Heat and Mass Transfer
6	B. Tech (Ag.E)	IV	171ES4T25	Fluid Mechanics and Open Channel Hydraulics
7	B. Tech (Ag.E)	IV	171AG4T07	Surface Water Hydrology


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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	3.5	Suggested to provide courses to improve employability skills	As per suggestions, Employability skills- I, II will be included.
2		Suggested to include courses which improves the technical skills of a student.	As per suggestions, Value added courses will be included in the course curriculum.
3		Suggested to add supercharger, turbocharger and various steering systems in Farm Power & Tractor system subject.	As per suggestions given, Farm Power & Tractor system syllabus will be modified.
4		Suggested to include some courses to improve moral awareness while writing research papers.	As per suggestions, Professional Ethics & Human Values will be included in the curriculum.
5		Suggested to include more Industrial/ field visits.	As per suggestions, necessary step will be taken in the coming semesters.
6		Suggested to add some numerical methods in Computational Fluid Dynamics course.	As per suggestions, required numerical methods will be included in Computational Fluid Dynamics subject.
7		Suggested to shift Dairy and Food Engineering subject from VI to VII semester	As per suggestions, Dairy and Food Engineering subject will be changed from VI to VII semester.
8		Suggested to include crop co-efficient critical moisture sensitive periods, growth stages of various crops topic in Irrigation & Drainage Engineering	Suggested topics will be included in the Irrigation & Drainage Engineering course.
9		Suggested to combine sowing and fertilization under same topic Principles of Soil Science and Agronomy course	As per suggestions, modifications will be included in Principles of Soil Science and Agronomy course.
10	3.2	Suggested to reduce the syllabus in FME-II	As per suggestions and discussions made, testing part will be removed from FME- II course.

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11	3.4	Suggested to introduce self- study courses.	As per suggestions, MOOC courses will be included in course curriculum.
12		Suggested to give the priority for new edition text books.	As per suggestions, latest textbooks will be referred.


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