

ADITYA ENGINEERING COLLEGE

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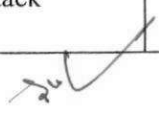
Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Program Name : B.Tech. in Information Technology

Syllabus Revision for the Academic Year 2021-2022				
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	201HS1T01	Communicative English	0
2	I	201BS1T01	Differential Equations and Linear Algebra	0
3	I	201BS1T04	Engineering Chemistry	0
4	I	201ES1T02	Programming for Problem Solving using C	0
5	I	201ES1I02	Computer Engineering Workshop	0
6	I	201HS1L01	Communicative English Lab	0
7	I	201BS1L03	Engineering Chemistry Lab	0
8	I	201ES1L02	Programming for Problem Solving using C Lab	0
9	I	201MC1T01	Environmental Science	0
10	II	201BS2T07	Numerical Methods and Complex Variables	0
11	II	201BS2T09	Applied Physics	0
12	II	201ES2T11	Computer Organization	0
13	II	201ES2T04	Python Programming	0
14	II	201ES2T07	Data Structures through C	0
15	II	201BS2L04	Applied Physics Lab	0
16	II	201ES2L06	Data Structures through C Lab	0
17	II	201ES2L14	Python Programming Lab	0
18	II	201MC2L01	Professional Communication Skills Lab	0

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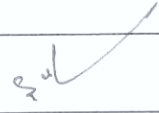
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
19	II	201MC2T02	Constitution of India	0
20	III	201CS3T01	Advanced data structures	50
21	III	201CS3T02	Object Oriented Programming through C++	0
22	III	201CS3T03	Operating Systems	55
23	III	201CS3T04	Software Engineering	25
24	III	201BS3T13	Discrete Mathematics	0
25	III	201CS3L01	Object Oriented Programming through C++ Lab	100
26	III	201CS3L02	Operating Systems Lab	0
27	III	201CS3L03	Unix and Shell Programming Lab	100
28	III	201SO3L05	Skill Oriented Course-I 1. Applications of Python numpy	100
29	III	201SO3L06	2. Web application development using full stack frontend development – module –I	100
30	III	201MC3T03	Biology for Engineers	0
31	IV	201BS4T16	Probability and statistics	0
32	IV	201CS4T05	Formal Languages and Automata Theory	0
33	IV	201CS4T06	Database Management Systems	0
34	IV	201CS4T07	JAVA PROGRAMMING	0
35	IV	201HS4T03	Managerial Economics and Financial Analysis	0
36	IV	201CS4L04	Database Management Systems Lab	0
37	IV	201CS4L05	Java Programming Lab	100
38	IV	201CS4L06	R Programming Lab	100
39	IV	201SC4L18	Skill Oriented Course II 1.Applications of python-pandas	100
40	IV	201SC4L19	2. Web application development using full stack frontend development module-II)	100


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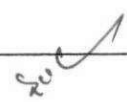
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
41	IV	201MC4T04	Essence of Indian Traditional Knowledge	0
42	V	191CS5T08	Compiler Design	0
43	V	191CS5T09	Computer Networks	0
44	V	191CS5T10	Database Management Systems	0
45	V	191CS5T11	Operating Systems	0
46	V	191CS5E04	Functional and Logic Programming	100
47	V	191CS5E01	Advanced Computer Architecture	0
48	V	191CS5E02	Artificial Intelligence	100
49	V	191CS5E05	Software Requirement and Estimation	100
50	V	191CS5E03	Computer Graphics	0
51	V	191CE5O01	Basic Concrete Technology	0
52	V	191EE5O01	Electrical Safety	0
53	V	191EE5O02	Electrical Materials	0
54	V	191EE5O03	Basic Electrical Measurements	0
55	V	191ME5O01	Renewable Energy Sources	0
56	V	191ME5O02	Fundamentals of Mechanical Engineering	0
57	V	191ME5O03	Supply Chain Management	0
58	V	191ME5O04	3D Printing	0
59	V	191ME5O05	Entrepreneurship Development and Incubation	0
60	V	191EC5O01	Signals & Systems	0
61	V	191EC5O02	Digital Electronics and Logic Design	0
62	V	191EC5O03	Semi conductor devices	0
63	V	191CS5O01	Data Structures	0

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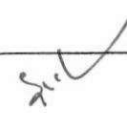
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
64	V	191CS5O02	Object Oriented Programming through C++	0
65	V	191CS5O03	Java Programming	0
66	V	191CS5O04	R Programming	0
67	V	191IT5O01	Data Base Management Systems	0
68	V	191IT5O02	Computer Graphics	0
69	V	191MI5O01	Overview of Mining	0
70	V	191PT5O01	Process Intensification in Petroleum Industry	0
71	V	191PT5O02	Fundamentals of Petroleum Industry	0
72	V	191AG5O01	Basic Crop Production Practices	0
73	V	191CS5L04	Operating Systems and Computer Networks Lab	100
74	V	191CS5L05	Database Management Systems Lab	0
75	V	191HS5T06	Employability Skills - III	0
76	V	191PR5P02	Socially Relevant Project	100
77	V	191MC5A08	Intellectual Property Rights and Patents	0
78	VI	191CS6T12	Data Ware Housing and Data Mining	0
79	VI	191CS6T13	Object Oriented Analysis of Design	100
80	VI	191CS6T14	Web Technologies	50
81	VI	191CS6E09	Scripting languages	100
82	VI	191CS6E06	Advance Operating Systems	100
83	VI	191CS6E08	Machine Learning	0
84	VI	191CS6E10	Software Testing Methodologies	60
85	VI	191CS6E07	Image Processing	50
86	VI	191CS6E11	C# .Net	100


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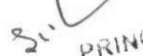
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
87	VI	191CS6E13	Distributed Systems	100
88	VI	191CS6E14	Natural Language Processing	100
89	VI	191CS6E15	Software Quality Assurance	0
90	VI	191CS6E12	Cloud Computing	0
91	VI	191CE6O02	Disaster Management	0
92	VI	191EE6O04	Energy Audit and Conservation Management	0
93	VI	191EE6O05	Non Conventional Energy resources	0
94	VI	191EE6O06	Instrumentation	0
95	VI	191ME6O06	Solar Energy Utilisation	0
96	VI	191ME6O07	Basic Thermodynamics and Heat Transfer	0
97	VI	191ME6O08	Introduction to Hydraulics and Pneumatics	0
98	VI	191ME6O09	3D Printing	0
99	VI	191ME6O10	Robotics	0
100	VI	191EC6O04	Biomedical Instrumentation	0
101	VI	191EC6O05	ECAD Tools	0
102	VI	191ME6O11	Management Science	0
103	VI	191IT6O03	Computer Organization	0
104	VI	191CS6O05	Python Programming	0
105	VI	191CS6O06	Operating Systems	0
106	VI	191IT6O04	AI Tools & Techniques	100
107	VI	191CS6O07	Web Technologies	0
108	VI	191IT6O05	Robotic Process Automation	100
109	VI	191CS6O08	Cyber Security	0


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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
110	VI	191CS6O09	AR / VR	0
111	VI	191MI6O02	Industrial Safety Practices	0
112	VI	191MI6O03	Electrical Equipment's in Mines	0
113	VI	191PT6O03	Unconventional Hydrocarbon Resources	0
114	VI	191PT6O04	Asset Management	0
115	VI	191AG6O02	Weather forecast in Agriculture	0
116	VI	191AG6O03	Bio-energy systems design and applications	0
117	VI	191ME6O12	Entrepreneurship Development and Incubation	0
118	VI	191CS6L06	Data Mining and Object Oriented Analysis of Design Lab	100
119	VI	191CS6L07	Web Technologies Lab	0
120	VI	191HS6T07	Employability Skills - IV	0
121	VI	191MC6A09	Professional Ethics and Human Values	0
122	VII	171CS7T18	Cryptography and Network Security	0
123	VII	171IT7T05	Big Data Analytics	0
124	VII	171CS7T20	Cloud Computing	0
125	VII	171IT7T06	Mobile Computing	0
126	VII	171CS7E13	Software Project Management	0
127	VII	171IT7E06	Machine Learning	0
128	VII	171CS7E15	Image Processing	0
129	VII	171CS7E16	Cyber Laws	0
130	VII	171CS7E19	Information Retrieval Systems	0
131	VII	171IT7E07	Human Computer Interaction	0
132	VII	171IT7E08	Distributed Systems	0



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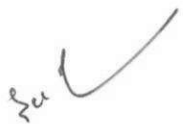
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
133	VII	171IT7E09	Decision Support System	0
134	VII	171IT7L04	Mobile Computing Lab	0
135	VII	171CS7L13	Big Data Analytics Lab	0
136	VII	171IT7P01	Industry Oriented (Internship) Minor Project	0
137	VIII	171CS8E21	Agile Methodologies	0
138	VIII	171CS8E22	Cyber Security	0
139	VIII	171CS8E23	Distributed Databases	0
140	VIII	171IT8E10	Pattern Recognition	0
141	VIII	171IT8O01	Management Information System	0
142	VIII	171CS8O01	Microprocessor and Multi Core Systems	0
143	VIII	171CS8O02	Embedded Systems	0
144	VIII	171IT8O02	Computer Vision	0
145	VIII	171EE8O05	Robotics	0
146	VIII	171CS8O04	Operations Research	0
147	VIII	171CS8O05	Optical Communications	0
148	VIII	171EE8O07	Internet of Things	0
149	VIII	171EC8O02	Disaster Management	0
150	VIII	171CS8O07	Nano Technology and its Applications	0
151	VIII	171IT8P02	Major Project	0
152	VIII	171EC8O02	Disaster Management	0
153	VIII	171CS8O06	Renewable Energy sources	0
154	VIII	171CS8O07	Nano Technology and its Applications	0
155	VIII	171CS8P02	Project Work	0


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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
Total number of courses in the academic year 2021-2022				= 155
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2021-2022				= 28
Percentage of syllabus revision carried out in the academic year 2021-2022 = $(49/135)*100$				= 18.06%


Program Coordinator


Head of the Department
Head of the Department
Department of IT
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Department of Information Technology

Date: 29-04-2022

VIII BOS Minutes of Meeting held on 27/04/2022

The 8th meeting of the BOS for IT was held on 27th April 2022 at 10.00AM, Ajivika Conference Hall, Bill Gates Bhavan. Mr. M. Raja Babu, Chairperson presided over the meeting.

Agenda 8.1: Welcome address by Chairperson.

Mr. M. Raja Babu, BOS Chairperson invited the distinguished members of BOS to the VIII BOS Meeting.

Agenda 8.2: 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 01/10/2021.

Agenda 8.3: Discussion on proposed AR20 B.Tech (IT) Program -V,VI ,VII& VIII semesters syllabus and ratification of the same.

The BOS members approved the AR 20 B.Tech (IT) V,VI, VII and VIII semesters syllabus after making the following changes in the proposed syllabi.

- Suggested to include modify the reference links.
- Suggested to add some programs to DAA course and to include a reference book by Skeina.
- Suggested to add the weblink for DMDW course.
- Suggested to add Functional programming and knowledge graph and to remove old topics expert systems
- Suggested to include Textbook written by Dr. N.B. Venkateshwarlu
- Suggested to add specific weblinks for the Skill oriented course and also share the syllabus of Robotic Process Automation course to ratify.
- Suggested to add the weblink of Mitesh Khapra, IIT Madras Machine Learning
- Suggested to swap Text book 1 with Text book 2 for the course Distributed Systems.
- Suggested to include weblink of NPTEL for the course Cyber Security

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- Dr. M. N. Murthy, shared a material offered by Stanford university,
- Suggested to utilize that for the course Social Networks and Semantic Web.
- Suggested to include a textbook "Neural Networks and Deep Learning" by Charu C. Agarwal.

Agenda 8.4: Discussion on proposed syllabus for courses in V to VII Semester under Honours and Minor Degree and ratification of the same.

BoS members ratified the syllabus of Honor Degree. For Minor Degree, the members of BoS suggested to change the title of courses offered.

Agenda 8.5: 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.
- BoS members suggested to add courses based on Hardware and Networking, which benefits the students who are not good at coding.

Agenda 8.6: Discussion on the new courses offered in B.Tech(IT) programme and ratification of the same

Members of BOS ratified the new courses offered in in B.Tech(IT) program. The percentage of new courses introduced in this academic year 2021-2022 for B.Tech (IT) is 14.19%. The list of new courses is enclosed as Annexure-I.

Agenda 8.7: Discussion on the percentage of syllabus revision done in the AR20 B.Tech(IT) program and ratification of the same.

The Chairperson presented the syllabus revision done in B.Tech (IT) program based on Stakeholder's Feedback on Curriculum and the BOS members approved the same. The percentage of courses revised in this academic year 2021-2022 for B.Tech (IT) is 18.06%. The list of courses revised is enclosed as Annexure-II.

Agenda 8.8: Discussion on the courses having focus on employability/ entrepreneurship/ skill development in B.Tech (IT) program and ratification of the same.

Members of BOS ratified the the courses having focus on employability/entrepreneurship/skill development in B.Tech(IT) program.

Agenda 8.9: Discussion on B.Tech (IT) program, in which Choice Based Credit System(CBCS)/elective course system is being implemented and ratification of the same.

Members of BOS ratified the B.Tech (IT) program, in which Choice Based Credit System(CBCS)/elective course system is being implemented.

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Agenda 8.10: Analysis of Feedback on Curriculum from Stake holders.

The BoS Chairperson presented the analysis of Feedback on Curriculum which is taken from the various Stakeholders. The BOS members noted the same. The Action Taken Report is enclosed as Annexure-III.

Agenda 8.11: Analysis of Results

The BoS Chairperson presented the odd semester pass percentage for the A.Y.2021-2022. The BoS members noted the same. BoS members suggested to present the students results in grade wise and subject wise and to present the number of students who cleared all the subjects at the first attempt.

Agenda 8.12: Analysis of Students Feedback & action taken report

The Chairperson expressed the students' feedback and action taken report. Members of BOS noted the students' feedback and action taken report process initiated at the end of each semester. The BOS members noted the same.

Agenda 8.13: Any other item with the approval of Chairman.

- Suggested to conduct Alumni meet frequently. And suggested to form a mentor group of Alumni students of different domains and to make them to guide the students on different technologies.
- Suggested to concentrate on CO-PO mapping for all courses.
- Suggested to include text book of new editions for all the courses.
- Suggested to form a ICC committee for curriculum suggestion and enhancement.

Agenda 8.14: Scheduling of next Board of Studies meeting.

The next BoS meeting is tentatively scheduled in the month of September 2022.

Agenda 8.15: Vote of Thanks

The Chairperson presented the Vote of Thanks.


BOS Chairperson


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Annexure I

List of New Courses in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (IT)	III	201SO3L05	Skill Oriented Course-I 1. Applications Of Python NumPy
2	B. Tech (IT)	III	201CS3T02	Object-Oriented Programming Through C++
3	B. Tech (IT)	III	201CS3L03	Unix And Shell Programming Lab
4	B. Tech (IT)	III	201SO3L06	Web Application Development Using Full-Stack Frontend Development – Module –I
5	B. Tech (IT)	IV	201SC4L18	Skill Oriented Course II 1. Applications of Python- Pandas
6	B. Tech (IT)	IV	201SC4L19	2. Web Application Development Using Full-Stack Frontend Development Module-II)
7	B. Tech (IT)	IV	201CS4L05	Java Programming Lab
8	B. Tech (IT)	IV	201CS4L06	R Programming Lab
9	B. Tech (IT)	VI	191CS6T13	Object Oriented Analysis and Design
10	B. Tech (IT)	V	191CS5E04	Functional And Logic Programming
11	B. Tech (IT)	V	191CS5E02	Artificial Intelligence
12	B. Tech (IT)	V	191CS5E05	Software Requirement and Estimation
13	B. Tech (IT)	V	191CS5L04	Operating Systems and Computer Networks Lab

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14	B. Tech (IT)	V	191PR5P02	Socially Relevant Project
15	B. Tech (IT)	VI	191CS6L06	Data Mining and Object-Oriented Analysis and Design Lab
16	B. Tech (IT)	VI	191CS6E09	Scripting languages
17	B. Tech (IT)	VI	191CS6E06	Advanced Operating Systems
18	B. Tech (IT)	VI	191CS6E11	C# .Net
19	B. Tech (IT)	VI	191CS6E13	Distributed Systems
20	B. Tech (IT)	VI	191CS6E14	Natural Language Processing
21	B. Tech (IT)	VI	191IT6O04	AI Tools & Techniques
22	B. Tech (IT)	VI	191IT6O05	Robotic Process Automation


BOS Chairperson

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Annexure II

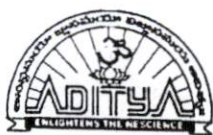
List of Courses Revised in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (IT)	III	201CS3T01	Advanced-Data Structures
2	B. Tech (IT)	III	201CS3T03	Operating Systems
3	B. Tech (IT)	III	201CS3T04	Software Engineering
4	B. Tech (IT)	VI	191CS6T14	Web Technologies
5	B. Tech (IT)	VI	191CS6E10	Software Testing Methodologies
6	B. Tech (IT)	VI	191CS6E07	Image Processing


BOS Chairperson

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Annexure III

Action Taken Report on Stakeholders Feedback in the Academic Year 2021-22

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	8.9	Suggested to include some professional Elective Courses that focus on Web Application Development.	Scripting Languages and .Net courses have been introduced.
2	8.9	Include Emerging technologies in the syllabus	As per suggestion, Open Elective II, Open Elective III, and Open Elective IV will be introduced and all the emerging technologies like Cybersecurity, AR/VR, Computer Vision, and Robotics are going to be included.
3	8.12	Suggested to add some general courses from other domains.	Courses like Electrical Safety, Electrical Materials, and Fundamentals of Mechanical Engineering will be introduced
4	8.3	Some courses should be introduced as skill-oriented courses in the early bird stage itself so that the student can focus on basics as well as the advancements made in that technology.	The course Applications of Python-NumPy and Web Application Development using Full Stack Front End Development Module-1 will be included in the 3 rd semester and Applications of Python-Pandas and Web Application Development using Full Stack Front End Development Module-2 are going to be included in the 4 th semester.

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5	8.12	Suggested to provide effective language training to be provided for interview purposes.	As suggested, the Formal Languages and Automata Theory course will be introduced.
6	8.8	Suggested to include a course which concentrates on Entrepreneurship Development	Courses like Entrepreneurship Development and Incubation will be included in the coming semesters.
7	8.12	Make the students work with the industry by including a course that either offers them an internship or job opportunity in the industry.	An internship course has been introduced.
8	8.12	Divide the project work into 2 semesters so that students focus on requirements elicitation and design in 1 semester and coding and testing in another semester.	Project Part 1 and Project Part 2 courses are introduced.
9	8.3	Suggested to include courses on an electronic base for the projects	Signals & Systems, Digital Electronics, and Logic Design and Semiconductor devices courses will be introduced.
10	8.3	Please design the curriculum in such a way that the students come across department-related courses in the early semester itself. This helps the students in having an insight into GATE and other competitive exams as well as placements.	Operating Systems and Software Engineering are going to be included in the 3 rd semester and Database Management Systems and Database Management Systems Lab will be included in the 4 th semester.
11	8.12	Make the Internship and Project Part available in different semesters	Taken into consideration and can be implemented in the next regulation.
12	8.3	Please include some trending tool courses for real-time practice	As per suggestion, AI Tools & Techniques and ECAD Tools will be introduced.


BOS Chairperson


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