

REPORT ON EXTRACT OF SYLLABUS CHANGE (2017-18 TO 2021-22)

DEPARTMENT OF MECHANICAL ENGINEERING

% Change in syllabus from JNTUA R-15 to AK19 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	19ABS9901	Algebra and Calculus	New course	100
2	19ABS9905	Engineering Chemistry		60
3	19AES0501	Problem Solving and Programming	New course	100
4	19ALC0301	Engineering Workshop Practice	New course	100
5	19AES0301	Engineering Graphics Lab	New course	100
6	19ABS9910	Engineering Chemistry Lab		20
7	19AES0503	Problem Solving and Programming Lab	New course	100
8	19ABS9906	Differential Equations and Vector Calculus	New course	100
9	19AES0502	Data Structures	New course	100
10	19AHS9901	Communicative English- I	New course	100
11	19AHS9902	Communicative English – I Lab	New course	100
12	19ALC0302	Mechanical Engineering Workshop	New course	100
13	19AES0504	Data Structures Lab	New course	100
14	19ABS9913	Probability & Statistics, PDE and Complex Variables	New course	100
15	19AHS9903	Communicative English II	New course	100
16	19AES0302	Design Thinking & Product Innovation	New course	100
17	19APC0301	Engineering Mechanics		20
18	19AHS9904	Communicative English II Lab	New course	100
19	19AES0303	Design Thinking & Product Innovation Lab	New course	100
20	19APC0307	Material Science and Engineering Lab		20
21	19ALC0303	Computer Aided Machine Drawing Lab	New course	100
22	19ABS9915	Transform Techniques and Numerical Methods	New course	100
23	19AES0505	Internet of Things (IoT)	New course	100
24	19APC0302	Mechanics of Materials	New course	100
25	19AMC9901	Biology for Engineers	New course	100
26	19APR0301	Socially Relevant Project (15 Hrs/Sem)	New course	100
27	19AES0506	Internet of Things (IoT) Lab	New course	100
28	19APC0303	Mechanics of Materials Lab	New course	100
29	19APE0306	Renewable Energy Technologies	New course	100
30	19APE0501	Artificial Intelligence	New course	100
31	19APE0416	Sensor Networks	New course	100
32	19AMC9902	Constitution of India	New course	100
33	19APR0302	Socially Relevant Projects (15 Hrs /Sem)	New course	100
34	19APC0315	Computer Aided Drafting Lab	New course	100
35	19APE0317	Optimization Techniques	New course	100
36	19APE0318	Introduction to CAD/CAM	New course	100
37	19APC0513	Machine Learning	New course	100
38	19APC0216	Neural Networks & Fuzzy Logics	New course	100
39	19AOE0101	Structural Health Monitoring	New course	100

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40	19AHE9902	Principles of Effective Public Speaking	New course	100
41	19AHE9904	Advanced Numerical Methods	New course	100
42	19AHE9908	Electromagnetic Theory	New course	100
43	19AMC9904	Professional Ethics and Human Values	New course	100
44	19APR0303	Socially Relevant Projects (15 Hrs / Sem)	New course	100
45	19APC0320	Design & Simulation Lab	New course	100
46	19APE0308	Finite Element Analysis	New course	100
47	19APE0311	Simulation Modelling for Manufacturing Systems	New course	100
48	19APE0312	Advanced Mechanics	New course	100
49	19AHE9906	Effective Technical Communication	New course	100
50	19AHE9901	Technical Writing	New course	100
51	19AHSMB03	Organizational Behaviour	New course	100
52	19APR0305	Socially Relevant Project (15 hr/sem)	New course	100
53	19APE0121	Air pollution and control	New course	100
54	19AOE0516	R Programming	New course	100
55	19APE0208	Electricity and Safety Measures	New course	100
56	19APE0313	Rapid Manufacturing	New course	100
57	19APE0314	Laser Based Manufacturing	New course	100
58	19APE0315	Energy Conservation and Waste Heat Recovery	New course	100
		Total no. of subjects in R15 of JNTUA syllabus	70	
		No. of subjects with $\geq 20\%$ change in AK19 syllabus	58	
		% of subjects with change in contents	82.85%	

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% Change in syllabus from AK19 to AK20 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	20AES0301	Engineering Graphics	New course	100
2	20AES0509	Basics of Python Programming	New course	100
3	20AES0510	Basics of Python Programming Lab	New course	100
4	20ABS9913	Probability & Statistics, PDE	New course	100
5	20APC0303	Machine Drawing	New course	100
6	20APC0313	Mechanical Engineering Workshop Practice	New course	100
7	20APC0324	CAD Lab	New course	100
8	20ASC0301	CATIA Lab	New course	100
9	20AES0324	Thermal Engineering	New course	100
10	20AHS9905	Universal Human Values	New course	100
11	20AOEMB02	Entrepreneurship Development	New course	100
12	20APE0306	Renewable Energy Technologies	New course	100
13	20ASA0502	Soft skills	New course	100
14	20CSP0301	Community Service Project	New course	100
15	20APC0316	Design of Machine Elements	New course	100
16	20AOE0515	The joy of computing using Python	New course	100
17	20AOEMB01	Principles of Management	New course	100
18	20AOE0518	An Introduction to Artificial Intelligence	New course	100
19	20APC0328	CAM Lab	New course	20
20	20APC0330	Machine Tools – 2 Lab	New course	20
21	20ASC0303	Crystal structure Analysis Lab	New course	100
22	20APC0312	Manufacturing Technology		20
		Total no. of subjects in AK19 Autonomous	70	
		No. of subjects with >= 20% change in AK20 syllabus	22	
		% of subjects with change in contents	31.42%	

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% Change in syllabus from R17 JNTUA to AK19 Autonomous Regulations				
S. No	Course code	Name of the Course	Remarks	% of Syllabus content modified
1	19DBS9901	Advanced Mathematics for Engineers	New course	100
2	19DPC0303	Advanced Material Science & Metallurgy	New course	100
3	19DMC0101	Disaster Management	New course	100
4	19DMC9901	English for Research Paper Writing	New course	100
5	19DMC9902	Sanskrit for Technical Knowledge	New course	100
6	19DMC9903	Value Education	New course	100
7	19DPC0302	Mechanical Vibrations Lab	New course	100
8	19DPC0309	Mechanisms and Robotics (Virtual) Lab	New course	100
9	19DPE9005	Advanced Mechanics of Solids	New course	100
10	19DPE9006	Tribology in Design	New course	100
11	19DMC5801	Pedagogy Studies	New course	100
12	19DMC9904	Constitution of India	New course	100
13	19DMC9905	Stress Management by Yoga	New course	100
14	19DMC9906	Personality Development through Life Enlightenment Skills	New course	100
15	19DPE9008	Product Design and Development	New course	100
16	19DPE9009	Engineering Fracture Mechanics	New course	100
17	19DOE5801	Business Analytics	New course	100
18	19DOE9001	Industrial Safety	New course	100
19	19DOE9002	Operations Research	New course	100
20	19DOE2002	Project Management	New course	100
21	19DOE9004	Composite Material	New course	100
22	19DOE2001	Waste to Energy	New course	100
		Total no. of subjects in AK19 Autonomous	26	
		No. of subjects with $\geq 20\%$ change in AK20 syllabus	22	
		% of subjects with change in contents	84.61%	

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