

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Curriculum

for

B.Tech(Evening) Degree

Semesters I to VIII

2016

Estd

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

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APJ ABDUL KALAM

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY B.TECH (PART TIME) CURRICULUM APRIL 2016

	Branch	Page
1.	Civil Engineering	03
2.	Computer Science and Engineering	09
3.	Electrical and Electronics Engineering	15
4.	Electronics and Communication Engineering	21
5.	Mechanical Engineering	27
	ELECTIVE 5	33



SEMEST	ER-1	TT	VA	T A A	·A
Course Code	Course Name	L-T-P	Credits	Exam Slot	V)
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A	F
CE201	Mechanics of Solids	3-1-0	4	В	
CE203	Fluid Mechanics I	3-1-0	4	С	
CE207	Surveying	3-0-0	3	Е	
CE231	Civil Engineering Drafting Lab	0-0-3	1	S	
CE233	Surveying Lab	0-0-3	1	Т	

Total Credits = 17

Hours: 21

Cumulative Credits= 17

SEMESTER - 2

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	Α
CE202	Structural Analysis I	3-1-0	4	В
CE204	Construction Technology	4-0-0	4	С
CE206	Fluid Mechanics II	3-0-0	3	D
CE232	Materials Testing Lab I	0-0-3	1	S
CE234	Fluid Mechanics Lab	0-0-3	1	Т

Total Credits = 17 Hours :21

Cumulative Credits= 34

SEMESTER - 3

SLIVILST	A DI A DIDI	TT	1.7 X	T A A
Course Code	Course Name	L-T-P	Credits	Exam Slot
CE301	Design of Concrete Structures I	3-1-0	4	A —
CE303	Structural Analysis II	3-0-0	3	В
CE205	Engineering Geology	3-0-1	4	D
CE309	Water Resources Engineering	3-0-0	3	E
HS200	Business Economics	3-0-0	3	F
CE331	Materials Testing Lab II	0-0-3	1	Т

Total Credits = 18 Hours: 20 Cumulative Credits = 52

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE302	Design of Hydraulic Structures	4-0-0	4	А
CE304	Design of Concrete Structures II	3-0-0	3	В
CE306	Computer Programming and Computational Techniques	3-0-0	3	С
CE208	Geotechnical Engineering I	3-0-0	3	Е
HS210	Life Skills	2-0-2	3	F
CE334	Computer Aided Civil Engineering Lab	0-0-3	1	Т

Total Credits = 17 Hours: 20 Cumulative Credits = 69

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE403	Structural Analysis III	3-0-0	3	ВД
CE405	Environmental Engineering I	3-0-0	3	С
CE307	Geomatics	3-0-0	3	D
CE409	Quantity Surveying and Valuation	3-0-0	3	E
	Elective 1	3-0-0	3	F
CE341	Design Project	0-1-2	2	S
CE333	Geotechnical Engineering Lab	0-0-3	1	U

Total Credits = 18 Hours: 21 Cumulative Credits= 87

Elective 1:-	1. CE361	Advanced Concrete Technology
	2. CE363	Geotechnical Investigation
	3. CE365	Functional Design of Buildings
	4. CE367	Water Conveyance Systems
	5. CE369	Disaster Management
	6. CE371	Environment and Pollution
	7. CE 373	Advanced Mechanics of Materials

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE402	Environmental Engineering II	3-0-0	3	A
CE404	Civil Engineering Project Management	3-0-0	3	В
CE308	Transportation Engineering I	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	Ш
	Elective 2	3-0-0	3	F
CE332	Transportation Engineering Lab	0-0-3	1	S
CE352	Comprehensive Exam	0-1-1	2	U

Total Credits = 18 Hours: 20 Cumulative Credits = 105

Elective 2:-

1. CE362	Ground Improvement Techniques
2. CE364	Advanced Foundation Engineering
3. CE366	Traffic Engineering and Management
4. CE368	Prestressed Concrete
5. CE372	Engineering Hydrology
6. CE374	Air Quality Management

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
CE401	Design of Steel Structures	4-0-0	4	Α
CE305	Geotechnical Engineering II	3-0-0	3	С
CE407	Transportation Engineering II	3-0-0	3	D
	Elective 3	3-0-0	3	F
CE451	Seminar & Project Preliminary	0-1-4	2	S
CE431	Environmental Engineering Lab	0-0-3	1	T

Total Credits = 16 Hours: 21 Cumulative Credits = 121

Elective 3:-

CE461 Water Hydrodynamics and Coastal Engineering
 CE463 Bridge Engineering
 CE465 Geo-Environmental Engineering
 CE467 Highway Pavement Design
 CE469 Environmental Impact Assessment
 CE471 Advanced Structural Design
 CE473 Advanced Computational Techniques and Optimization

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
CE492	Project	0-0-12	6	S

Total Credits = 12 Hours: 18 Cumulative Credits = 133

Elective 4:-

1. CE462	Town and Country Planning
2. CE464	Reinforced Soil Structures and Geosynthetics
3. CE466	Finite Element Methods
4. CE468	Structural Dynamics and Earthquake Resistant Design
5. CE472	Transportation Plan <mark>ni</mark> ng
6. CE474	Municipal Solid Waste Management



SEMESTER - 1

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra& Complex Analysis	3-1-0	4	A
CS201	Discrete Computational Structures	3-1-0	4	В
CS203	Switching Theory and Logic Design	3-1-0	4	С
CS207	Electronics Devices & Circuits	3-0-0	3	E
HS210	Life Skills	2-0-2	3	F
CS233	Electronics Circuits Lab	0-0-3	1	T

Total Credits = 19 Hours: 22 Cumulative Credits = 19

SEMESTER - 2

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	Α
CS202	Computer Organization and Architecture	3-1-0	4	В
CS206	Object Oriented Design and Programming	2-1-0	3	D
CS208	Principles of Database Design	2-1-0	3	E
CS232	Free and Open Source Software Lab	0-0-3	1	S
CS234	Digital Systems Lab	0-0-3	1	Т

Total Credits = 16 Hours :20 Cumulative Credits = 35

SEMEST	ER-3PJ ABDI	JL	KA	LAN
Course Code	Course Name	L-T-P	Credits	Exam Slot
CS301	Theory of Computation	3-1-0	4	Α
CS303	System Software	2-1-0	3	В
CS305	Microprocessors and Microcontrollers	2-1-0	3	С
CS205	Data Structures	3-1-0	4	D
CS231	Data Structures Lab	0-0-3	1	S
CS333	Application Software Development Lab	0-0-3	1	U

Total Credits = 16 Hours: 20 **Cumulative Credits= 51**

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS302	Design and Analysis of Algorithms	3-1-0	4	А
CS204	Operating Systems	3-1-0	4	С
CS308	Software Engineering and Project Management	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
HS200	Business Economics	3-0-0	3	F
CS332	Microprocessor Lab	0-0-3	1	S

Total Credits = 18 Hours: 20 **Cumulative Credits= 69**

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS403	Programming Paradigms	3-0-0	3	В
CS405	Computer System Architecture	3-0-0	3	С
CS307	Data Communication	3-0-0	3	D
CS309	Graph Theory and Combinatorics	2-0-2	3	Ш
	Elective 1	3-0-0	3	F
CS341	Design Project	0-1-2	2	S
CS331	System Software Lab	0-0-3	1	Т

Total Credits = 18 Hours: 22 Cumulative Credits = 87

Elective 1:- 1. CS361 Soft Computing

2. CS363 Signals and Systems

3. CS365 Optimization Techniques

4. CS367 Logic for Computer Science

5. CS369 Digital System Testing & Testable Design

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS402	Data Mining and Ware Housing	3-0-0	3	А
CS304	Compiler Design	3-0-0	3	В
CS306	Computer Networks	3-0-0	3	С
	Elective 2	3-0-0	3	F
CS334	Network Programming Lab	0-0-3	1) ^T
CS352	Comprehensive Exam	0-1-1	2	U

Total Credits = 15 Hours: 17 Cumulative Credits = 102

Elective 2:-

CS362 Computer Vision
 CS364 Mobile Computing
 CS366 Natural Language Processing
 CS368 Web Technologies
 CS372 High Performance Computing

SEMESTER - 7				
Course Code	Course Name	L-T-P	Credits	Exam Slot
CS401	Computer Graphics	4-0-0	4	A
CS407	Distributed Computing	3-0-0	3	D
CS409	Cryptography and Network Security	3-0-0	3	Е
	Elective 3	3-0-0	3	F
CS451	Seminar & Project Preliminary	0-1-4	2	S
CS431	Compiler Design Lab	0-0-3	1	Т

Total Credits = 16 **Cumulative Credits= 118** Hours: 21

Elective 3:-

Computational Geometry 1. CS461 Digital Image Processing 2. CS463 3. CS465 **Bio Informatics** 4. CS467 Machine Learning Computational Complexity

5. CS469

SEMESTER - 8

SEIVIESTER - 8					
Course Code	Course Name		L-T-P	Credits	Exam Slot
CS404	Embedded Systems	1	3-0-0	3	В
	Elective 4	ŀ	3-0-0	3	С
	Elective 5 (Non Departmental)		3-0-0	3	D
CS492	Project		0-0-12	6	S

Total Credits = 15 Hours: 21 Cumulative Credits = 133

Elective 4:-

CS462 Fuzzy Set Theory and Applications
 CS464 Artificial Intelligence
 CS466 Data Science
 CS468 Cloud Computing
 CS472 Principles of Information Security

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SEMESTER - 1

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
EE203	Analogue Electronic Circuits	3-1-0	4	С
EE205	DC Machines and Transformers	3-1-0	4	D
EE207	Computer Programming	2-1-0	3	E
EE231	Electronic Circuits Lab	0-0-3	1	S
EE233	Programming Lab	0-0-3	1	Т

Total Credits = 17 Hours: 21 Cumulative Credits= 17

SEMESTER - 2

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	Α
EE204	Digital Electronics and Logic Design	2-1-0	3	С
EE206	Material Science	3-0-0	3	D
EE208	Measurements and Instrumentation	3-1-0	4	Ш
EE232	Electrical Machines Lab I	0-0-3	1	S
EE234	Circuits and Measurements Lab	0-0-3	1	Т

Total Credits = 16 Hours: 20 Cumulative Credits = 33

SEMESTER - 3

OLIVILOTEIX - S				
Course Code	Course Name	L-T-P	Credits	Exam Slot
EE401	Electronic communication	2-1-0	3	A
EE201	Circuits and Networks	3-1-0	4	В
EE305	Power Electronics	3-0-0	3	С
EE309	Microprocessor and Embedded Systems	2-1-0	3	Е
HS200	Business Economics	3-0-0	3	F
EE331	Digital Circuits and Embedded Systems Lab	0-0-3	1	T

Total Credits = 17 Hours: 19 Cumulative Credits = 50

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
EE302	Electromagnetics	2-1-0	3	A
EE202	Synchronous and Induction Machines	3-1-0	4	В
EE306	Power System Analysis	3-0-0	3	С
EE308	Electric Drives	3-0-0	3	D
HS210	Life Skills	2-0-2	3	F
EE334	Power Electronics & Drives Lab	0-0-3	1	Т

Total Credits = 17 Hours: 20 Cumulative Credits = 67

SEMESTER - 5

OLIVILO	ADI ADINI	TT	1.7 A	TAA
Course Code	Course Name	L-T-P	Credits	Exam Slot
EE301	Power Generation, Transmission and Protection	3-1-0	4	A
EE303	Linear Control Systems	2-1-0	3	В
EE405	Electrical system design	3-1-0	4	С
EE307	Signals and Systems	3-0-0	3	D
	Elective 1	3-0-0	3	F
EE341	Design Project	0-1-2	2	S
EE333	Electrical Machines Lab II	0-0-3	1	U

Total Credits = 20 Hours: 23 Cumulative Credits= 87

Elective 1:- 1. EE361 Object Oriented Programming
2. EE363 Computer Organization and Architecture
3. EE365 Digital System Design
4. EE367 New and Renewable Energy Systems
5.EE369 High Voltage Engineering

SEMESTER - 6

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Course Code	Course Name	L-T-P	Credits	Exam Slot
EE402	Special Electric Machines	3-0-0	3	Α
EE304	Advanced Control Theory	3-1-0	4	В
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
EE332	Systems and Control Lab	0-0-3	1	S
EE352	Comprehensive Exam	0-1-1	2	U

Total Credits = 16

Hours: 18

Cumulative Credits= 103

Elective 2:-

1. EE362 Data Structures and Algorithms

2. EE364 Switched Mode Power Converters

3. EE366 Illumination Technology

4. EE368 Soft Computing

5. EE372 Biomedical Instrumentation

SEMESTER - 7

	ADI ADDIT	TI	/ A T	A K A
Course Code	Course Name	L-T-P	Credits	Exam Slot
EE403	Distributed generation and smart grids	3-0-0	3	В
EE407	Digital Signal Processing	3-0-0	3	D
EE409	Electrical Machine Design	3-0-0	3	E
	Elective 3	3-0-0	3	F
EE451	Seminar & Project Preliminary	0-1-4	2	S
EE431	Power system Lab	0-0-3	1	Т

Total Credits = 15 Hours: 20 Cumulative Credits = 118

Elective 3:-

EE461 Modern Operating Systems
 EE463 Computer Aided Power Systems Analysis
 EE465 Power Quality
 EE467 Nonlinear Control Systems
 EE469 Electric and Hybrid Vehicles

SEMESTER - 8

OLIVILO I LI	ADI ADINI	TT	17	AT	A K A
Course Code	Course Name	Ŷ.	L-T-P	Credits	Exam Slot
EE404	Industrial Instrumentation & Automation		3-0-0	3	В
	Elective 4	F	3-0-0	3	O
	Elective 5 (Non Departmental)		3-0-0	3	D
EE492	Project		0-0-12	6	S

Total Credits = 15 Hours: 21 Cumulative Credits = 133

Elective 4:-

1. EE462 Design of Digital Control Systems
 2. EE464 FACTS
 3. EE466 Digital Image Processing
 4. EE468 Computer Networks
 5. EE472 Internet of Things
 6. EE474 Energy Management and Auditing

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SEMESTER - 1

	ADT ADDI	TT	1.7 X	T A A
Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
EC201	Network Theory	3-1-0	4	В
EC203	Solid State Devices	3-1-0	4	С
EC205	Electronic Circuits	3-1-0	4	D
EC231	Electronic Devices & Circuits Lab	0-0-3	1	S

Total Credits = 17 Hours: 19 Cumulative Credits= 17

SEMESTER - 2

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA204	Probability, Random Processes and Numerical Methods	3-1-0	4	Α
EC202	Signals & Systems	3-1-0	4	В
EC204	Analog Integrated Circuits	4-0-0	4	С
EC208	Analog Communication Engineering	3-0-0	3	E
EC232	Analogue Integrated Circuits Lab	0-0-3	1	S
EC233	Electronic Design Automation Lab	0-0-3	1	Т

Total Credits = 17 Hours: 21 Cumulative Credits = 34

SEMESTER - 3

	ADI ADDI	TT	1.5 %	TAL
Course Code	Course Name	L-T-P	Credits	Exam Slot
EC303	Applied Electromagnetic Theory	3-0-0	3	ВА
EC307	Power Electronics & Instrumentation	3-0-0	3	D
EC207	Logic Circuit Design	3-0-0	3	Е
HS200	Business Economics	3-0-0	3	F
EC230	Logic Circuit Design Lab	0-0-3	1	T
EC335	Power Electronics & Instrumentation Lab	0-0-3	1	U

Total Credits = 14 Hours: 18 Cumulative Credits = 48

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC302	Digital Communication	4-0-0	4	А
EC304	VLSI	3-0-0	3	В
EC306	Antenna & Wave Propagation	3-0-0	3	С
EC206	Computer Organisation	3-0-0	3	D
HS210	Life Skills	2-0-2	3	F
EC332	Communication Engg Lab (Analog & Digital)	0-0-3	1	S

Total Credits = 17 Hours: 20 Cumulative Credits = 65

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC301	Digital Signal Processing	3-1-0	4	AA
EC403	Microwave & Radar Engineering	3-0-0	3	В
EC305	Microprocessors & Microcontrollers	3-0-0	3	С
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
EC341	Design Project	0-1-2	2	S
EC333	Digital Signal Processing Lab	0-0-3	1	Т

Total Credits = 19 Hours: 22 Cumulative Credits = 84

Elective 1:- 1. EC361 Digital System Design

2. EC363 Optimization Techniques

3. EC365 Biomedical Engineering

4. EC360 Soft Computing

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC402	Nano electronics	3-0-0	3	A
EC308	Embedded System	3-0-0	3	D
EC312	Object Oriented Programming	3-0-0	3	Е
	Elective 2	3-0-0	3	F
EC334	Microcontroller Lab	0-0-3	1	Т
EC352	Comprehensive Exam	0-1-1	2	U

Total Credits = 15 Hours: 17 Cumulative Credits = 99

Elective 2:-

1. EC362 Modelling & Simulation of Communication Systems

2. EC364 Computer Vision

3. EC366 Real Time Operating Systems

4. EC368 Robotics

5. EC370 Digital Image Processing

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC401	Information Theory & Coding	4-0-0	4	Α
EC405	Optical Communication	3-0-0	3	С
EC407	Computer Communication	3-0-0	3	D
EC409	Control Systems	3-0-0	3	E
	Elective 3	3-0-0	3	F
EC451	Seminar & Project Preliminary	0-1-4	2	S
EC431	Communication Systems Lab (Optical & Microwave)	0-0-3	1	Т

Total Credits = 19 Hours: 24 Cumulative Credits = 118

Elective 3:-

EC461 Microwave Devices and Circuits
 EC463 Speech and Audio Processing

3. EC465 MEMS

4. EC467 Pattern Recognition

5. EC469 Opto Electronic Devices

SEMESTER - 8

Course Code	Course Name		L-T-P	Credits	Exam Slot
EC404	Advanced Communication Systems	T	3-0-0	3	В
	Elective 4	1	3-0-0	3	С
	Elective 5 (Non Departmental)		3-0-0	3	D
EC492	Project		0-0-12	6	S

Total Credits = 15 Hours: 21 Cumulative Credits = 133

Elective 4:-

1. EC462 Mixed Signal Circuit Design

2. EC464 Low Power VLSI Design

3. EC466 Cyber Security

4. EC468 Secure Communication

5. EC472 Integrated Optics & Photonic Systems

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Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
ME201	Mechanics of Solids	3-1-0	4	В
ME203	Mechanics of Fluids	3-1-0	4	С
ME205	Thermodynamics	3-1-0	4	D
ME231	Computer Aided Machine Drawing Lab	0-0-3	1	S
CE230	Material Testing Lab	0-0-3	1	Т

Total Credits = 18 Hours: 22 **Cumulative Credits= 18**

SEMESTER - 2

Course	Course Name	L-T-P	Credits	Exam Slot
Code				
MA202	Probability Distributions,	3-1-0	4	Α
	Transforms and Numerical			
	Methods	td		
ME202	Advanced Mechanics of Solids	3-1-0	4	В
145004	T. 15 : :	0.4.0	4	0
ME204	Thermal Engineering	3-1-0	4	С
ME206	Fluid Machinery	2-1-0	3	D
	T All		71	
ME220	Manufacturing Technology	3-0-0	3	E
ME230	Fluid Mechanics & Machines Lab	0-0-3	1	Т

Total Credits = 19 **Cumulative Credits= 37** Hours:21

SEMESTER - 3

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME301	Mechanics of Machinery	3-1-0	4	A
ME303	Machine Tools and Digital Manufacturing	3-0-0	3	В
ME305	Computer Programming & Numerical Methods	2-0-1	3	С
ME210	Metallurgy and Materials Engineering	3-0-0	3	Е
HS210	Life Skills	2-0-2	3	F
ME331	Manufacturing Technology Lab I	0-0-3	1	U

Total Credits = 17 Hours: 20 Cumulative Credits = 54

SEMESTER - 4

Course	Course Name	L-T-P	Credits	Exam
Code				Slot
ME302	Heat and Mass Transfer	3-1-0	4	A
ME304	Dynamics of Machinery	2-1-0	3	В
ME312	Metrology and Instrumentation	3-0-0	3	E
HS200	Business Economics	3-0-0	3	F
ME232	Thermal Engineering Lab	0-0-3	1	S
ME334	Manufacturing Technology Lab II	0-0-3	1	Т

Total Credits = 15 Hours: 19 Cumulative Credits = 69

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME401	Design of Machine Elements I	3-1-0	4	A
ME403	Advanced Energy Engineering	3-0-0	3	В
EE311	Electrical Drives and Control for Automation	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
ME341	Design Project	0-1-2	2	S
EE335	Electrical and Electronics Lab	0-0-3	1	T

Total Credits = 19 Hours: 22 Cumulative Credits = 88

Elective 1:- 1. ME361 Advanced Fluid Mechanics
2. ME363 Composite Materials & Mechanics
3. ME365 Advanced Metal Casting
4. ME367 Non-Destructive Testing
5. ME369 Tribology
6. ME371 Nuclear Engineering
7. ME373 Human Relations Management

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME402	Design of Machine Elements II	3-0-0	3	A
ME404	Industrial Engineering	3-0-0	3	В
ME306	Advanced Manufacturing Technology	3-0-0	3	C
ME308	Computer Aided Design and Analysis	3-0-0	3	D
	Elective 2	3-0-0	3	F
ME332	Computer Aided Design and Analysis Lab	0-0-3	1	S
ME352	Comprehensive Exam	0-1-1	2	U

Total Credits = 18 Hours: 20 Cumulative Credits = 106

Elective 2:-

1. ME362	Control System Engineering
2. ME364	Turbo Machinery
3. ME366	Advanced Metal Joining Technology
4. ME368	Marketing Management
5. ME372	Operations Research
6. ME374	Theory of Vibration
7. ME376	Maintenance Engineering

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME405	Refrigeration and Air Conditioning	2-1-0	3	С
ME407	Mechatronics	3-0-0	3	D
ME409	Compressible Fluid Flow	2-1-0	3	E
	Elective 3	3-0-0	3	F
ME451	Seminar & Project Preliminary	0-1-4	2	S
ME431	Mechanical Engineering Lab	0-0-3	1	T

Total Credits = 15 Hours: 20 Cumulative Credits = 121

Elective 3:-

ME461 Aerospace Engineering
 ME463 Automobile Engineering
 ME465 Industrial Hydraulics
 IE306 Supply Chain and Logistics Management
 ME467 Cryogenic Engineering
 ME469 Finite Element Analysis
 ME471 Optimization Techniques

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
ME492	Project	0-0-12	6	S

Total Credits = 12 Hours: 18 Cumulative Credits = 133

Elective 4:-

ME462 Propulsion Engineering
 ME464 Robotics and Automation
 ME466 Computational Fluid Dynamics
 ME468 Nanotechnology
 ME472 Failure Analysis and Design
 ME474 Micro and Nano Manufacturing
 ME476 Material Handling & Facilities Planning



ELECTIVE 5 (NON DEPARTMENTAL ELECTIVE COURSES)

1. CE482	ENVIRONMENTAL IMPACT ASSESSMENT
2. CE484	APPLIED EARTH SYSTEMS
3. CE486	GEO INFORMATICS FOR INFRASTRUCTURE MANAGEMENT
4. CE488	DISASTER MANAGEMENT
5. CE494	ENVIRONMENT HEALTH AND SAFETY
6. CS482	DATA STRUCTURES
7. CS484	COMPUTER GRAPHICS
8. CS486	OBJECT ORIENTED PROGRAMMING
9. CS488	C # AND .NET PROGRAMMING
10. EE482	ENERGY MANAGEMENT AND AUDITING
11. EE484	CONTROL SYSTEMS
12. EE486	SOFT COMPUTING
13. EE488	INDUSTRIAL AUTOMATION
14. EE492	INSTRUMENTATION SYSTEMS
15. EC482	BIOMEDICAL ENGINEERING
16. MA482	APPLIED LINEAR ALGEBRA
17. MA484	OPERATIONS RESEARCH
18. MA486	ADVANCED NUMERICAL COMPUTATIONS
19. MA488	CRYPTOGRAPHY
20. ME469	FINITE ELEMENT ANALYSIS
21. ME482	ENERGY CONSERVATION AND MANAGEMENT
22. ME471	OPTIMIZATION TECHNIQUES
23. HS482	PROFESSIONAL ETHICS