



**APJ ABDUL KALAM TECHNOLOGICAL  
UNIVERSITY**

**Curricula**

**B.Tech (Part time – Evening) Programme**

**2016**

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

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

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## BRANCH: *Civil Engineering*

### SEMESTER - 1

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
CE201	Mechanics of Solids	3-1-0	4	B
CE203	Fluid Mechanics I	3-1-0	4	C
CE207	Surveying	3-0-0	3	E
CE231	Civil Engineering Drafting Lab	0-0-3	1	S
CE233	Surveying Lab	0-0-3	1	T

**Total Credits = 17    Hours: 21**

**Cumulative Credits= 17**

### SEMESTER - 2

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
CE202	Structural Analysis I	3-1-0	4	B
CE204	Construction Technology	4-0-0	4	C
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	T

**Total Credits = 17    Hours :21**

**Cumulative Credits= 34**

## BRANCH: *Civil Engineering*

### SEMESTER - 3

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CE301	Design of Concrete Structures I	3-1-0	4	A
CE303	Structural Analysis II	3-0-0	3	B
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	T

**Total Credits = 18**

**Hours: 20**

**Cumulative Credits= 52**

### SEMESTER - 4

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CE302	Design of Hydraulic Structures	4-0-0	4	A
CE304	Design of Concrete Structures II	3-0-0	3	B
CE306	Computer Programming and Computational Techniques	3-0-0	3	C
CE208	Geotechnical Engineering I	3-0-0	3	E
HS210	Life Skills	2-0-2	3	F
CE334	Computer Aided Civil Engineering Lab	0-0-3	1	T

**Total Credits = 17**

**Hours: 20**

**Cumulative Credits= 69**

## BRANCH: *Civil Engineering*

SEMESTER - 5

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CE403	Structural Analysis III	3-0-0	3	B
CE405	Environmental Engineering I	3-0-0	3	C
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

## BRANCH: *Civil Engineering*

SEMESTER - 6

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CE402	Environmental Engineering II	3-0-0	3	A
CE404	Civil Engineering Project Management	3-0-0	3	B
CE308	Transportation Engineering I	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	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

## BRANCH: *Civil Engineering*

SEMESTER - 7

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CE401	Design of Steel Structures	4-0-0	4	A
CE305	Geotechnical Engineering II	3-0-0	3	C
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:-

1. CE461      Water Hydrodynamics and Coastal Engineering
2. CE463      Bridge Engineering
3. CE465      Geo-Environmental Engineering
4. CE467      Highway Pavement Design
5. CE469      Environmental Impact Assessment
6. CE471      Advanced Structural Design
7. CE473      Advanced Computational Techniques and Optimization

## BRANCH: *Civil Engineering*

SEMESTER - 8

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

**Total Credits = 12**

**Hours: 21**

**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 Planning
6. CE474 Municipal Solid Waste Management



## BRANCH: **Computer Science & Engineering**

### SEMESTER - 1

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA201	Linear Algebra& Complex Analysis	3-1-0	4	A
CS201	Discrete Computational Structures	3-1-0	4	B
CS203	Switching Theory and Logic Design	3-1-0	4	C
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

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
CS202	Computer Organization and Architecture	3-1-0	4	B
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	T

**Total Credits = 16**

**Hours: 20**

**Cumulative Credits= 35**

## BRANCH: **Computer Science & Engineering**

### SEMESTER - 3

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CS301	Theory of Computation	3-1-0	4	A
CS303	System Software	2-1-0	3	B
CS305	Microprocessors and Microcontrollers	2-1-0	3	C
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

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CS302	Design and Analysis of Algorithms	3-1-0	4	A
CS204	Operating Systems	3-1-0	4	C
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**

## BRANCH: **Computer Science & Engineering**

SEMESTER - 5

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CS403	Programming Paradigms	3-0-0	3	B
CS405	Computer System Architecture	3-0-0	3	C
CS307	Data Communication	3-0-0	3	D
CS309	Graph Theory and Combinatorics	2-0-2	3	E
	Elective 1	3-0-0	3	F
CS341	Design Project	0-1-2	2	S
CS331	System Software Lab	0-0-3	1	T

**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

## BRANCH: **Computer Science & Engineering**

SEMESTER - 6

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CS402	Data Mining and Ware Housing	3-0-0	3	A
CS304	Compiler Design	3-0-0	3	B
CS306	Computer Networks	3-0-0	3	C
	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:-

1. CS362 Computer Vision
2. CS364 Mobile Computing
3. CS366 Natural Language Processing
4. CS368 Web Technologies
5. CS372 High Performance Computing

## BRANCH: **Computer Science & Engineering**

SEMESTER - 7

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
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	E
	Elective 3	3-0-0	3	F
CS451	Seminar & Project Preliminary	0-1-4	2	S
CS431	Compiler Design Lab	0-0-3	1	T

**Total Credits = 16**

**Hours: 21**

**Cumulative Credits= 118**

Elective 3:-

1. CS461 Computational Geometry
2. CS463 Digital Image Processing
3. CS465 Bio Informatics
4. CS467 Machine Learning
5. CS469 Computational Complexity

## BRANCH: **Computer Science & Engineering**

SEMESTER - 8

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
CS404	Embedded Systems	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
CS492	Project		6	

**Total Credits = 15**

**Hours: 21**

**Cumulative Credits= 133**

Elective 4:-

1. CS462 Fuzzy Set Theory and Applications
2. CS464 Artificial Intelligence
3. CS466 Data Science
4. CS468 Cloud Computing
5. CS472 Principles of Information Security

**BRANCH: *Electrical & Electronics Engineering*****SEMESTER - 1**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
EE203	Analogue Electronic Circuits	3-1-0	4	C
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	T

**Total Credits = 17****Hours: 21****Cumulative Credits= 17****SEMESTER - 2**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
EE204	Digital Electronics and Logic Design	2-1-0	3	C
EE206	Material Science	3-0-0	3	D
EE208	Measurements and Instrumentation	3-1-0	4	E
EE232	Electrical Machines Lab I	0-0-3	1	S
EE234	Circuits and Measurements Lab	0-0-3	1	T

**Total Credits = 16****Hours: 20****Cumulative Credits= 33**

**BRANCH: *Electrical & Electronics Engineering*****SEMESTER - 3**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE401	Electronic communication	2-1-0	3	A
EE201	Circuits and Networks	3-1-0	4	B
EE305	Power Electronics	3-0-0	3	C
EE309	Microprocessor and Embedded Systems	2-1-0	3	E
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**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE302	Electromagnetics	2-1-0	3	A
EE202	Synchronous and Induction Machines	3-1-0	4	B
EE306	Power System Analysis	3-0-0	3	C
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	T

**Total Credits = 17****Hours: 20****Cumulative Credits= 67**



**BRANCH: *Electrical & Electronics Engineering***

**SEMESTER - 5**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE301	Power Generation, Transmission and Protection	3-1-0	4	A
EE303	Linear Control Systems	2-1-0	3	B
EE405	Electrical system design	3-1-0	4	C
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

**BRANCH: *Electrical & Electronics Engineering***

SEMESTER - 6

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE402	Special Electric Machines	3-0-0	3	A
EE304	Advanced Control Theory	3-1-0	4	B
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

**BRANCH: *Electrical & Electronics Engineering***

SEMESTER - 7

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE403	Distributed generation and smart grids	3-0-0	3	B
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	T

**Total Credits = 15****Hours: 20****Cumulative Credits= 118**

Elective 3:-

1. EE461 Modern Operating Systems
2. EE463 Computer Aided Power Systems Analysis
3. EE465 Power Quality
4. EE467 Nonlinear Control Systems
5. EE469 Electric and Hybrid Vehicles

**BRANCH: *Electrical & Electronics Engineering***

**SEMESTER - 8**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EE404	Industrial Instrumentation & Automation	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
EE492	Project		6	

**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

**BRANCH: Electronics & Communication Engineering****SEMESTER - 1**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
EC201	Network Theory	3-1-0	4	B
EC203	Solid State Devices	3-1-0	4	C
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**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA204	Probability, Random Processes and Numerical Methods	3-1-0	4	A
EC202	Signals & Systems	3-1-0	4	B
EC204	Analog Integrated Circuits	4-0-0	4	C
EC206	Computer Organization	3-0-0	3	D
EC312	Object Oriented Programming	3-0-0	3	E
EC232	Analogue Integrated Circuits Lab	0-0-3	1	S

**Total Credits = 19****Hours: 21****Cumulative Credits= 36**

**BRANCH: Electronics & Communication Engineering****SEMESTER - 3**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EC301	Digital Signal Processing	3-1-0	4	A
EC303	Applied Electromagnetic Theory	3-0-0	3	B
EC307	Power Electronics & Instrumentation	3-0-0	3	D
EC207	Logic Circuit Design	3-0-0	3	E
HS200	Business Economics	3-0-0	3	F
EC333	Digital Signal Processing Lab	0-0-3	1	T
EC335	Power Electronics & Instrumentation Lab	0-0-3	1	U

**Total Credits = 18                      Hours: 22**  
**Cumulative Credits= 54**

**SEMESTER - 4**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EC302	Digital Communication	4-0-0	4	A
EC304	VLSI	3-0-0	3	B
EC306	Antenna & Wave Propagation	3-0-0	3	C
EC208	Analog Communication Engineering	3-0-0	3	E
HS210	Life Skills	2-0-2	3	F
EC230	Logic Circuit Design Lab	0-0-3	1	T

**Total Credits = 17                      Hours: 20**  
**Cumulative Credits= 71**

**BRANCH: Electronics & Communication Engineering****SEMESTER - 5**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EC403	Microwave & Radar Engg	3-0-0	3	B
EC305	Microprocessors & Microcontrollers	3-0-0	3	C
EC407	Computer Communication	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
EC341	Design Project	0-1-2	2	S
EC223	Electronic Design Automation Lab	0-0-3	1	T

**Total Credits = 18****Hours: 21****Cumulative Credits= 89**

- Elective 1:-
1. EC361 Digital System Design
  2. EC363 Optimization Techniques
  3. EC365 Biomedical Engineering
  4. EC360 Soft Computing

**BRANCH: Electronics & Communication Engineering**

**SEMESTER - 6**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EC402	Nano electronics	3-0-0	3	A
EC404	Advanced Communication Systems	3-0-0	3	B
EC308	Embedded System	3-0-0	3	D
	Elective 2	3-0-0	3	F
EC332	Communication Engg Lab (Analog& Digital)	0-0-3	1	S
EC334	Microcontroller Lab	0-0-3	1	T
EC352	Comprehensive Exam	0-1-1	2	U

**Total Credits = 16**

**Hours: 20**

**Cumulative Credits= 105**

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



**BRANCH: *Electronics & Communication Engineering***

**SEMESTER - 7**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
EC401	Information Theory & Coding	4-0-0	4	A
EC405	Optical Communication	3-0-0	3	C
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	T

**Total Credits = 16**

**Hours: 21**

**Cumulative Credits= 121**

Elective 3:-

1. EC461     Microwave Devices and Circuits
2. EC463     Speech and Audio Processing
3. EC465     MEMS
4. EC467     Pattern Recognition
5. EC469     Opto Electronic Devices

**BRANCH: *Electronics & Communication Engineering***

**SEMESTER - 8**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
EC492	Project		6	

**Total Credits = 12**

**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

## BRANCH: *Mechanical Engineering*

### SEMESTER - 1

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
ME201	Mechanics of Solids	3-1-0	4	B
ME203	Mechanics of Fluids	3-1-0	4	C
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	T

**Total Credits = 18**

**Hours: 22**

**Cumulative Credits= 18**

### SEMESTER - 2

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
ME202	Advanced Mechanics of Solids	3-1-0	4	B
ME204	Thermal Engineering	3-1-0	4	C
ME206	Fluid Machinery	2-1-0	3	D
ME220	Manufacturing Technology	3-0-0	3	E
ME230	Fluid Mechanics & Machines Lab	0-0-3	1	T

**Total Credits = 19**

**Hours :21**

**Cumulative Credits= 37**

**BRANCH: *Mechanical Engineering*****SEMESTER - 3**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
ME301	Mechanics of Machinery	3-1-0	4	A
ME303	Machine Tools and Digital Manufacturing	3-0-0	3	B
ME305	Computer Programming & Numerical Methods	2-0-1	3	C
ME210	Metallurgy and Materials Engineering	3-0-0	3	E
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**

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
ME302	Heat and Mass Transfer	3-1-0	4	A
ME304	Dynamics of Machinery	2-1-0	3	B
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	T

**Total Credits = 15****Hours: 19****Cumulative Credits= 69**

## BRANCH: *Mechanical Engineering*

SEMESTER - 5

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
ME401	Design of Machine Elements I	3-1-0	4	A
ME403	Advanced Energy Engineering	3-0-0	3	B
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

## BRANCH: *Mechanical Engineering*

SEMESTER - 6

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
ME402	Design of Machine Elements II	3-0-0	3	A
ME404	Industrial Engineering	3-0-0	3	B
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

## BRANCH: *Mechanical Engineering*

SEMESTER - 7

<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Exam Slot</b>
ME405	Refrigeration and Air Conditioning	2-1-0	3	C
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:-

1. ME461 Aerospace Engineering
2. ME463 Automobile Engineering
3. ME465 Industrial Hydraulics
4. IE306 Supply Chain and Logistics Management
5. ME467 Cryogenic Engineering
6. ME469 Finite Element Analysis
7. ME471 Optimization Techniques

## BRANCH: *Mechanical Engineering*

SEMESTER - 8

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

**Total Credits = 12**

**Hours: 21**

**Cumulative Credits= 133**

Elective 4:-

1. ME462 Propulsion Engineering
2. ME464 Robotics and Automation
3. ME466 Computational Fluid Dynamics
4. ME468 Nanotechnology
5. ME472 Failure Analysis and Design
6. ME474 Micro and Nano Manufacturing
7. 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 INDUSTRIAL AUTOMATION
13. EE488 INSTRUMENTATION SYSTEMS
14. EE494 SOFT COMPUTING
15. EC482 BIOMEDICAL ENGINEERING
16. MA482 APPLIED LINEAR ALGEBRA
17. MA484 OPERATIONS RESEARCH
18. MA486 ADVANCED NUMERICAL COMPUTATIONS
19. MA488 CRYPTOGRAPHY (Not for IT branch)
20. ME469 FINITE ELEMENT ANALYSIS
21. ME482 ENERGY CONSERVATION AND MANAGEMENT
22. ME471 OPTIMIZATION TECHNIQUES
23. HS482 PROFESSIONAL ETHICS