



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

**Curriculum
for
B.Tech Degree
Semesters III to VIII
2016**

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.TECH CURRICULUM FOR THIRD AND HIGHER SEMESTERS
APRIL 2016

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BRANCH: **Computer Science & Engineering**

SEMESTER - 3

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	B
CS203	Switching Theory and Logic Design	3-1-0	4	C
CS205	Data Structures	3-1-0	4	D
CS207	Electronics Devices & Circuits	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	3-0-0/ 2-0-2	3	F
CS231	Data Structures Lab	0-0-3	1	S
CS233	Electronics Circuits Lab	0-0-3	1	T

Total Credits = 24

Hours: 28/29

Cumulative Credits= 71

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
CS202	Computer Organization and Architecture	3-1-0	4	B
CS204	Operating Systems	3-1-0	4	C
CS206	Object Oriented Design and Programming	2-1-0	3	D
CS208	Principles of Database Design	2-1-0	3	E
HS210/ HS200	Life Skills/Business Economics	3-0-0/ 2-0-2	3	F
CS232	Free and Open Source Software Lab	0-0-3	1	S
CS234	Digital Systems Lab	0-0-3	1	T

Total Credits = 23

Hours 28/27

Cumulative Credits= 94

BRANCH: **Computer Science & Engineering**

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
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
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
CS333	Application Software Development Lab	0-0-3	1	U

Total Credits = 23

Hours: 29 Cumulative Credits= 117

- 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

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS302	Design and Analysis of Algorithms	3-1-0	4	A
CS304	Compiler Design	3-0-0	3	B
CS306	Computer Networks	3-0-0	3	C
CS308	Software Engineering and Project Management	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
CS332	Microprocessor Lab	0-0-3	1	S
CS334	Network Programming Lab	0-0-3	1	T
CS352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours: 27

Cumulative Credits= 140

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

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS401	Computer Graphics	4-0-0	4	A
CS403	Programming Paradigms	3-0-0	3	B
CS405	Computer System Architecture	3-0-0	3	C
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 = 22

Hours: 27

Cumulative Credits= 162

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

Course Code	Course Name	L-T-P	Credits	Exam Slot
CS402	Data Mining and Ware Housing	3-0-0	3	A
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 = 18

Hours: 30

Cumulative Credits= 180

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 - 3**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
EE201	Circuits and, Networks	3-1-0	4	B
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
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
EE231	Electronic Circuits Lab	0-0-3	1	S
EE233	Programing Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
EE202	Synchronous and Induction Machines	3-1-0	4	B
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
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
EE232	Electrical Machines Lab I	0-0-3	1	S
EE234	Circuits and Measurements Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Electrical & Electronics Engineering*

SEMESTER - 5

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	B
EE305	Power Electronics	3-0-0	3	C
EE307	Signals and Systems	3-0-0	3	D
EE309	Microprocessor and Embedded Systems	2-1-0	3	E
	Elective 1	3-0-0	3	F
EE341	Design Project	0-1-2	2	S
EE331	Digital Circuits and Embedded Systems Lab	0-0-3	1	T
EE333	Electrical Machines Lab II	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- 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

Course Code	Course Name	L-T-P	Credits	Exam Slot
EE302	Electromagnetics	2-1-0	3	A
EE304	Advanced Control Theory	3-1-0	4	B
EE306	Power System Analysis	3-0-0	3	C
EE308	Electric Drives	3-0-0	3	D
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
EE334	Power Electronics and Drives Lab	0-0-3	1	T
EE352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours: 27

Cumulative Credits= 140

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

Course Code	Course Name	L-T-P	Credits	Exam Slot
EE401	Electronic communication	2-1-0	3	A
EE403	Distributed generation and smart grids	3-0-0	3	B
EE405	Electrical system design	3-1-0	4	C
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 = 22

Hours: 27

Cumulative Credits= 162

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

Course Code	Course Name	L-T-P	Credits	Exam Slot
EE402	Special Electric Machines	3-0-0	3	A
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 = 18

Hours: 29

Cumulative Credits= 180

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 & Biomedical Engineering***SEMESTER - 3**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
BM201	Basic Medical Sciences for Engineers	3-1-0	4	B
BM205	Electrical Technology	3-1-0	4	C
BM207	Design of Electronic Circuits	3-1-0	4	D
IC207	Design of Logic Circuits	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
BM231	Electronic Devices & Circuits Lab	0-0-3	1	S
IC233	Logic Circuits Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
BM202	Biophysics	3-1-0	4	B
BM204	Integrated Circuits & Systems	4-0-0	4	C
IC206	Microcontrollers	3-0-0	3	D
BM206	Fundamentals of Computer Programming	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
BM232	Analog Circuits Lab	0-0-3	1	S
BM234	Computer Programming Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Electronics & Biomedical Engineering*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
BM301	Biomedical Signals & Systems	3-1-0	4	A
BM303	Biosensors & Transducers	3-0-0	3	B
BM305	Advanced Microprocessors & Microcontrollers	3-0-0	3	C
BM307	Hospital Engineering	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
BM341	Design Project	0-1-2	2	S
BM331	Medical Electronics Lab	0-0-3	1	T
BM333	Microprocessors & Microcontrollers Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. BM361 Communication Techniques
 2. BM363 Principles of Ergonomic Design
 3. BM365 Bioinformatics
 4. BM367 Biomedical Optics & Bio photonics

BRANCH: *Electronics & Biomedical Engineering*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
BM302	Analytical & Diagnostic Equipment	4-0-0	4	A
BM304	Biomedical Signal Processing	3-0-0	3	B
BM314	Principles of Logic System Design	3-0-0	3	C
BM308	Computational Methods in Biomedical Engineering	3-0-0	3	D
BM312	Control System Engineering	3-0-0	3	E
	Elective 2	3-0-0	3	F
BM332	Biomedical Signal Processing Lab	0-0-3	1	S
BM336	Bioengineering Lab	0-0-3	1	T
BM352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours:27

Cumulative Credits= 140

Elective 2:-

1. BM362 Mechatronics
2. BM366 Telemedicine
3. BM368 Computer Communications
4. BM372 Embedded System Design

BRANCH: *Electronics & Biomedical Engineering*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
BM401	Medical Image Processing	4-0-0	4	A
BM403	Therapeutic Equipment	3-0-0	3	B
BM405	Artificial Neural Networks	3-0-0	3	C
BM411	Modelling of Physiological Systems	3-0-0	3	D
BM409	Medical Imaging Techniques	3-0-0	3	E
	Elective 3	3-0-0	3	F
BM451	Seminar & Project Preliminary	0-1-4	2	S
BM433	Medical Systems Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. BM463 Power Electronics & Applications
2. EC467 Pattern Recognition
3. BM467 Medical Robotics
4. BM469 Bio MEMS & Nanotechnology

BRANCH: *Electronics & Biomedical Engineering*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
BM402	Biomechanics & Design of Medical Devices	3-0-0	3	A
BM404	Principles of Radio Diagnosis & Radiotherapy	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
BM492	Project		6	

Total Credits = 18

Hours: 29

Cumulative Credits= 180

Elective 4:-

1. BM462 VLSI Design
2. BM464 Reliability Engineering
3. BM466 Advanced Biomedical Signal Processing
4. BM306 Biomaterials

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

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	B
EC203	Solid State Devices	3-1-0	4	C
EC205	Electronic Circuits	3-1-0	4	D
EC207	Logic Circuit Design	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
EC231	Electronic Devices & Circuits Lab	0-0-3	1	S
EC233	Electronic Design Automation Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA204	Probability distributions, 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
EC208	Analogue Communication Engineering	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
EC232	Analogue Integrated Circuits Lab	0-0-3	1	S
EC230	Logic Circuit Design Lab	0-0-3	1	T

Total Credits = 23 Hours 27/28**Cumulative Credits= 94**

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

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC301	Digital Signal Processing	3-1-0	4	A
EC303	Applied Electromagnetic Theory	3-0-0	3	B
EC305	Microprocessors & Microcontrollers	3-0-0	3	C
EC307	Power Electronics & Instrumentation	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
EC333	Digital Signal Processing Lab	0-0-3	1	T
EC335	Power Electronics & Instrumentation Lab	0-0-3	1	U

Total Credits = 23**Hours: 28****Cumulative Credits= 117**

- 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**

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC302	Digital Communication	4-0-0	4	A
EC304	VLSI	3-0-0	3	B
EC306	Antenna & Wave Propagation	3-0-0	3	C
EC308	Embedded System	3-0-0	3	D
EC312	Object Oriented Programming	3-0-0	3	E
	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 = 23**Hours: 27****Cumulative Credits= 140****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**

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC401	Information Theory & Coding	4-0-0	4	A
EC403	Microwave & Radar Engg	3-0-0	3	B
EC405	Optical Communication	3-0-0	3	C
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	T

Total Credits = 22**Hours: 27****Cumulative Credits= 162****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

Course Code	Course Name	L-T-P	Credits	Exam Slot
EC402	Nano electronics	3-0-0	3	A
EC404	Advanced Communication Systems	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
EC492	Project		6	All free hours

Total Credits = 18

Hours: 29

Cumulative Credits= 180

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: *Information Technology*

SEMESTER - 3

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	B
IT201	Digital System Design	3-1-0	4	C
CS205	Data Structures	3-1-0	4	D
IT203	Data Communication	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
CS231	Data Structures Lab	0-0-3	1	S
IT231	Digital Circuits Lab	0-0-3	1	T

Total Credits = 24

Hours: 28/29

Cumulative Credits= 71

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
CS202	Computer Organization and Architecture	3-1-0	4	B
IT202	Algorithm Analysis & Design	4-0-0	4	C
IT204	Object Oriented Techniques	3-0-0	3	D
CS208	Principles of Data Base Design	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
IT232	Object Oriented Programming Lab	0-0-3	1	S
IT234	Algorithm Design Lab	0-0-3	1	T

Total Credits = 23

Hours 28/27

Cumulative Credits= 94

BRANCH: *Information Technology*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
IT301	Software Architecture & Design Patterns	3-1-0	4	A
IT303	Theory of Computation	3-0-0	3	B
CS305	Microprocessors & Microcontrollers	2-1-0	3	C
IT305	Operating Systems	3-0-0	3	D
IT307	Computer Networks	3-0-0	3	E
	Elective 1	3-0-0	3	F
IT341	Design Project	0-1-2	2	S
IT331	Microcontroller Lab	0-0-3	1	T
IT333	Database Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. IT361 Graph Theory
 2. IT363 UNIX Shell Programming
 3. IT365 Computer Architecture & Parallel Processing
 4. IT367 Computer Graphics & Multimedia
 5. MA361 Random Process and Queuing Theory

BRANCH: *Information Technology*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
IT302	Internet Technology	4-0-0	4	A
CS304	Compiler Design	2-1-0	3	B
IT304	Data Warehousing & Mining	3-0-0	3	C
IT306	Distributed Systems	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
IT332	Internet Technology Lab	0-0-3	1	S
IT334	Computer Networks Lab	0-0-3	1	T
IT352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours: 27

Cumulative Credits= 140

Elective 2:-

1. IT362 Information Retrieval
2. IT364 Software Project Management
3. IT366 Advanced DBMS
4. IIT368 Information Theory & Coding
5. MA362 Abstract Algebra and Number Theory

BRANCH: *Information Technology*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
IT401	Embedded Systems	4-0-0	4	A
IT403	Mobile Computing	3-0-0	3	B
IT405	Internet Working with TCP/IP	3-0-0	3	C
IT407	Knowledge Engineering	3-0-0	3	D
IT409	Web Application Development	3-0-0	3	E
	Elective 3	3-0-0	3	F
IT451	Seminar & Project Preliminary	0-1-4	2	S
IT431	Web Application Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. IT461 Software Testing & Quality Assurance
2. IT463 Semantic Web
3. IT465 Cyber Forensics
4. CS467 Machine Learning

BRANCH: *Information Technology*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
IT402	Cryptography & Cyber Security	3-0-0	3	A
IT404	Data Analytics	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
IT492	Project		6	

Total Credits = 18

Hours: 30

Cumulative Credits= 180

Elective 4:-

1. IT462 Internet of Things
2. CS468 Cloud Computing
3. IT464 Evolutionary Computing
4. IT466 Adhoc & Sensor Networks
5. IT468 Service Oriented Architecture

BRANCH: *Mechanical Engineering*

SEMESTER - 3

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	B
ME203	Mechanics of Fluids	3-1-0	4	C
ME205	Thermodynamics	3-1-0	4	D
ME210	Metallurgy & Materials Engineering	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
ME231	Computer Aided Machine Drawing Lab	0-0-3	1	S
CE230	Material Testing Lab	0-0-3	1	T

Total Credits = 24

Hours: 28/29

Cumulative Credits= 71

SEMESTER - 4

Course Code	Course Name	L-T-P	Credits	Exam Slot
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
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
ME232	Thermal Engineering Lab	0-0-3	1	S
ME230	Fluid Mechanics & Machines Lab	0-0-3	1	T

Total Credits = 23

Hours 28/27

Cumulative Credits= 94

BRANCH: *Mechanical Engineering*

SEMESTER - 5

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	B
ME305	Computer Programming & Numerical Methods	2-0-1	3	C
EE311	Electrical Drives & 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
ME331	Manufacturing Technology Lab I	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. ME361 Advanced Fluid Mechanics
 2. ME363 Composite Materials and 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

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME302	Heat & Mass Transfer	3-1-0	4	A
ME304	Dynamics of Machinery	2-1-0	3	B
ME306	Advanced Manufacturing Technology	3-0-0	3	C
ME308	Computer Aided Design and Analysis	3-0-0	3	D
ME312	Metrology and Instrumentation	3-0-0	3	E
	Elective 2	3-0-0	3	F
ME332	Computer Aided Design and Analysis Lab	0-0-3	1	S
ME334	Manufacturing Technology Lab II	0-0-3	1	T
ME352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours: 27

Cumulative Credits= 140

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

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	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 = 22

Hours: 27

Cumulative Credits= 162

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

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	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
ME492	Project		6	

Total Credits = 18

Hours: 30

Cumulative Credits= 180

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

BRANCH: Mechanical (Automobile) Engineering**SEMESTER - 3**

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	B
AU205	Automotive Chassis	3-1-0	4	C
ME205	Thermodynamics	3-1-0	4	D
ME210	Metallurgy & Materials Engineering	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
AU231	Computer Aided M/c & Auto Components Drafting Lab	0-0-3	1	S
CE230	Material Testing Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
ME212	Fluid Mechanics	3-1-0	4	B
ME214	Theory of Machines	4-0-0	4	C
AU212	Automobile Power Plant	3-0-0	3	D
ME220	Manufacturing Technology	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
ME236	Machine Shop	0-0-3	1	S
AU234	Vehicle Systems Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Mechanical (Automobile) Engineering*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
AU301	Auto Transmission	3-1-0	4	A
AU303	Fuels and Combustion	3-0-0	3	B
ME305	Computer Programming & Numerical Methods	3-0-0	3	C
AU305	Vehicle Maintenance	3-0-0	3	D
AU309	Heating, Ventilating & Air Conditioning (HVAC)	3-0-0	3	E
	Elective 1	3-0-0	3	F
AU341	Design Project	0-1-2	2	S
ME333	Heat Engines Lab	0-0-3	1	T
AU333	Computer Programming Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. AU363 Plastics & Composites in Automobiles
 2. AU367 Vehicle Body Engineering
 3. AU369 Manufacturing of Automotive Components
 4. AU402 Two and Three Wheelers

BRANCH: *Mechanical (Automobile) Engineering*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME302	Heat & Mass Transfer	3-1-0	4	A
ME316	Principles of Machine Design	3-0-0	3	B
EE312	Electrical and Electronics Engineering	3-0-0	3	C
ME308	Computer Aided Design and Analysis	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
ME332	CAD & Analysis Lab	0-0-3	1	S
AU334	Vehicle Testing Lab	0-0-3	1	T
AU352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours: 27

Cumulative Credits= 140

Elective 2:-

1. AU364 Vehicle Performance & Testing
2. AU368 Tractors and Farm Equipment
3. AU372 Automotive Test Equipment
4. MP403 Computer Integrated Manufacturing

BRANCH: *Mechanical (Automobile) Engineering*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
AU411	Engine and Drive Line Design	4-0-0	4	A
AU403	Vehicle Dynamics	3-0-0	3	B
AU413	Automotive Mechatronics	3-0-0	3	C
AU407	Advanced IC Engines	3-0-0	3	D
AU415	Automotive Pollution & Control	3-0-0	3	E
	Elective 3	3-0-0	3	F
AU451	Seminar & Project Preliminary	0-1-4	2	S
AU433	Automotive Mechatronics Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. AU461 Automotive Comfort & Safety Engineering
2. AU469 Earth Moving Equipment
3. AU471 Embedded System in Automobile Engineering
4. AU473 Computer Simulation and Analysis of Automotive Components
5. AU475 Automotive Aerodynamics

BRANCH: *Mechanical (Automobile) Engineering*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
AU406	Modern Automotive Technology	3-0-0	3	A
AU410	Vehicle Transport and Fleet Management	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
AU492	Project		6	

Total Credits = 18

Hours: 30

Cumulative Credits= 180

Elective 4:-

1. AU474 Electric and Hybrid Vehicles
2. AU476 Noise, Vibration and Harness
3. AU478 Automotive Navigation and Control
4. AU482 Automobile Ergonomics & Styling
5. AU468 AGV and Autonomous Vehicles

BRANCH: Mechanical (Production) Engineering**SEMESTER - 3**

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	B
ME200	Fluid Mechanics & Machinery	3-1-0	4	C
ME205	Thermodynamics	3-1-0	4	D
ME210	Metallurgy and Materials Engineering	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
ME230	Fluid Mechanics & Machines Lab	0-0-3	1	S
MP231	Production Engineering Drawing	0-0-3	1	T

Total credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
MP212	Machine Tools	3-1-0	4	B
ME216	Mechanical Technology	4-0-0	4	C
MP206	Foundry Technology	3-0-0	3	D
MP208	Metal Joining Technology	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
MP232	Machine Tools Lab I	0-0-3	1	S
CE230	Material Testing Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Mechanical (Production) Engineering*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME301	Mechanics of Machinery	3-1-0	4	A
MP301	Metal Forming Technology	3-0-0	3	B
ME305	Computer Programming & Numerical Methods	3-0-0	3	C
MP305	Theory of Metal Cutting	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
MP341	Design Project	0-1-2	2	S
MP331	Machine Tools Lab II	0-0-3	1	T
ME339	Mechanical Engineering Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. ME361 Advanced Fluid Mechanics
 2. ME363 Composite Materials and Mechanics
 3. ME367 Non-Destructive Testing
 4. MP361 Facilities Planning and Plant Layout
 5. ME369 Tribology

BRANCH: *Mechanical (Production) Engineering*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
MP302	Advanced Materials & Manufacturing Systems	3-1-0	4	A
ME304	Dynamics of Machinery	2-1-0	3	B
EE312	Electrical and Electronics Engineering	3-0-0	3	C
ME308	Computer Aided Design and Analysis	3-0-0	3	D
ME312	Metrology and Instrumentation	3-0-0	3	E
	Elective 2	3-0-0	3	F
ME332	CAD Analysis Lab	0-0-3	1	S
EE336	Electrical and Electronics Lab	0-0-3	1	T
MP352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours:27

Cumulative Credits= 140

Elective 2:-

1. MP362 Precision Engineering
2. MP364 Rapid Prototyping, Tooling and Manufacture
3. MP366 Modern Manufacturing Concepts
4. MP374 Industrial Hydraulics
5. MP376 Artificial Intelligence in Manufacturing

BRANCH: *Mechanical (Production) Engineering*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME401	Design of Machine Elements I	3-1-0	4	A
MP403	Computer Integrated Manufacturing	3-0-0	3	B
MP405	Tool Engineering	3-0-0	3	C
ME407	Mechatronics	3-0-0	3	D
MP407	Total Quality Management	3-0-0	3	E
	Elective 3	3-0-0	3	F
MP451	Seminar & Project Preliminary	0-1-4	2	S
MP431	Production Engineering Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. IE364 Management Information Systems
2. ME469 Finite Element Analysis
3. ME461 Aerospace Engineering
4. MP463 Micromachining Methods
5. MP469 Industrial Psychology and Organizational Behaviour

BRANCH: *Mechanical (Production) Engineering*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
ME402	Design of Machine Elements II	3-0-0	3	A
MP404	Productions and Operations Management	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
MP492	Project		6	

Total Credits = 18

Hours: 30

Cumulative Credits= 180

Elective 4:-

1. ME462 Propulsion Engineering
2. ME464 Robotics and Automations
3. ME466 Computational Fluid Dynamics
4. ME468 Nanotechnology
5. MP462 Project Management

BRANCH: *Mechatronics***SEMESTER - 3**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
MR201	C Programming	3-1-0	4	B
EE209	Electrical Technology	3-1-0	4	C
EC209	Analog Electronics	3-1-0	4	D
MR205	Science of Measurements	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
EE235	Electrical Technology Lab	0-0-3	1	S
EC235	Analog Electronics Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	A
EC212	Linear Integrated Circuits and Digital Electronics	4-0-0	4	B
ME200	Fluid Mechanics & Machinery	3-1-0	4	C
MR202	Sensors and Actuators	3-0-0	3	D
ME210	Metallurgy and Materials Engineering	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
EC234	Linear Integrated Circuits and Digital Electronics Lab	0-0-3	1	S
ME230	Fluid Mechanics and Machinery Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Mechatronics*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
MR301	Linear Control Systems	3-1-0	4	A
MR303	Microprocessors and Microcontrollers	3-0-0	3	B
MR305	PLC and Data Acquisition Systems	3-0-0	3	C
MR307	Thermodynamics	3-0-0	3	D
ME220	Manufacturing Technology	3-0-0	3	E
	Elective 1	3-0-0	3	F
MR341	Design Project	0-1-2	2	S
MR331	Microprocessors and Microcontrollers Lab	0-0-3	1	T
MR333	Measurements and PLC Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. MR361 Reliability Engineering
 2. MR363 Object Oriented Programming
 3. MR365 Composite Materials
 4. ME369 Tribology

BRANCH: *Mechatronics*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
MR302	Robotics Engineering	4-0-0	4	A
MR304	Digital Image Processing and Machine Vision	3-0-0	3	B
MR306	Mechanics of Solids	3-0-0	3	C
MR308	Digital Manufacturing	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 2	3-0-0	3	F
MR332	Manufacturing Engineering Lab	0-0-3	1	S
MR334	Advanced Instrumentation Lab	0-0-3	1	T
MR352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours:27

Cumulative Credits= 140

Elective 2:-

1. MR362 Digital Signal Processing
2. MR364 Energy Engineering Management
3. MR366 Biomaterials
3. AE403 Biomedical Instrumentation
4. ME368 Marketing Management

BRANCH: *Mechatronics*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
MR401	Advanced Automation Systems	4-0-0	4	A
MR403	Nanotechnology	3-0-0	3	B
MR405	Embedded Systems	3-0-0	3	C
MR407	Autotronics	3-0-0	3	D
MR409	Micro Electro Mechanical Systems	3-0-0	3	E
	Elective 3	3-0-0	3	F
MR451	Seminar & Project Preliminary	0-1-4	2	S
MR431	Mechatronics Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. MR461 Fuzzy Logic Controllers
2. MR463 Bio Mechatronics
3. MR465 Entrepreneurship
4. ME469 Finite Element Analysis

BRANCH: *Mechatronics*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
MR402	Soft Computing Techniques	3-0-0	3	A
MR404	Power Electronics and Drives	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
MR492	Project		6	

Total Credits = 18

Hours: 29

Cumulative Credits= 180

Elective 4:-

1. MR462 Industrial Electronics and Applications
2. MR464 Agile Manufacturing Systems
3. MR466 Special Electrical Machines and Applications
4. MR468 Research Methodology

BRANCH: Metallurgy**SEMESTER - 3**

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	B
MT201	Metallurgical Thermodynamics and Kinetics	3-1-0	4	C
MT203	Mineral Beneficiation	3-1-0	4	D
MT205	Computer Programming In C	3-0-0	3	E
HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
MT231	Mineral Dressing Lab	0-0-3	1	S
MT233	Computer Programming In C Lab	0-0-3	1	T

Total Credits = 24**Hours: 28/29****Cumulative Credits= 71****SEMESTER - 4**

Course Code	Course Name	L-T-P	Credits	Exam Slot
MA206	Probability & Statistics and Numerical Methods	3-1-0	4	A
MT202	Physical Metallurgy	3-1-0	4	B
MT204	Heat, Mass and Momentum Transport	4-0-0	4	C
MT206	Metallurgical Heat Treatments	3-0-0	3	D
MT208	Mechanical Behaviour and Testing	3-0-0	3	E
HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
MT232	Metallography and Heat Treatment Lab	0-0-3	1	S
MT234	Mechanical Testing Lab	0-0-3	1	T

Total Credits = 23**Hours 28/27****Cumulative Credits= 94**

BRANCH: *Metallurgy*

SEMESTER - 5

Course Code	Course Name	L-T-P	Credits	Exam Slot
MT301	Metal Joining Technology	3-1-0	4	A
MT303	Iron and Steel Making	3-0-0	3	B
MT305	Non-Ferrous Extractive Metallurgy	3-0-0	3	C
MT307	Foundry Technology	3-0-0	3	D
HS300	Principles of Management	3-0-0	3	E
	Elective 1	3-0-0	3	F
MT341	Design Project	0-1-2	2	S
MT331	Welding Lab	0-0-3	1	T
MT333	Foundry Lab	0-0-3	1	U

Total Credits = 23

Hours: 28

Cumulative Credits= 117

- Elective 1:-**
1. MT361 Special Steels and Cast Irons
 2. MT363 Design and Selection of Materials
 3. ME375 Mechanical Technology
 4. MT365 Electrical, Electronic, Optical and Magnetic Materials
 5. MT367 Measurements and Control

BRANCH: *Metallurgy*

SEMESTER - 6

Course Code	Course Name	L-T-P	Credits	Exam Slot
MT302	Corrosion Engineering	4-0-0	4	A
MT304	Advanced and Secondary Steel Making	3-0-0	3	B
MT306	Non-Ferrous Physical Metallurgy	3-0-0	3	C
MT308	Fuels, Furnace and Refractories	3-0-0	3	D
MT312	Materials Characterisation	3-0-0	3	E
	Elective 2	3-0-0	3	F
MT332	Non-Ferrous Physical Metallurgy Lab	0-0-3	1	S
MT334	Corrosion Lab	0-0-3	1	T
MT352	Comprehensive Exam	0-1-1	2	U

Total Credits = 23

Hours:27

Cumulative Credits= 140

Elective 2:-

1. MT362 Nuclear Metallurgy
2. MT364 Nano-materials and Applications
3. MT366 Semiconductor Materials and Devices
4. MT368 Ceramic Processing
5. MT372 Polymer Science and Technology

BRANCH: *Metallurgy*

SEMESTER - 7

Course Code	Course Name	L-T-P	Credits	Exam Slot
MT401	Non-Destructive Testing	4-0-0	4	A
MT403	Creep, Fatigue and Fracture	3-0-0	3	B
MT405	Metallurgical Failure Analysis	3-0-0	3	C
MT407	Powder Metallurgy	3-0-0	3	D
MT409	Deformation Processing	3-0-0	3	E
	Elective 3	3-0-0	3	F
MT451	Seminar & Project Preliminary	0-1-4	2	S
MT431	NDT Lab	0-0-3	1	T

Total Credits = 22

Hours: 27

Cumulative Credits= 162

Elective 3:-

1. MT461 High Temperature Materials
2. MT463 Vacuum Science and Deposition Techniques
3. MT465 Sensors for Engineering Applications
4. MT467 Metallurgy of Tool Materials
5. MT469 Surface Engineering

BRANCH: *Metallurgy*

SEMESTER - 8

Course Code	Course Name	L-T-P	Credits	Exam Slot
MT402	Ceramics, Polymers and Composite Materials	3-0-0	3	A
MT404	Fracture Mechanics	3-0-0	3	B
	Elective 4	3-0-0	3	C
	Elective 5 (Non Departmental)	3-0-0	3	D
MT492	Project		6	

Total Credits = 18

Hours: 30


Cumulative Credits= 180

Elective 4:-

1. MT462 Advances in Metal Forming
2. MT464 Energy Storing Devices and Fuel Cells
3. MT466 Composite Materials
4. MT468 Non Traditional machining
5. MT472 Emerging materials

ELECTIVE 5 (NON DEPARTMENTAL ELECTIVE COURSES)

1. AO482 FLIGHT AGAINST GRAVITY
2. AE482 INDUSTRIAL INSTRUMENTATION
3. AE484 INSTRUMENTATION SYSTEM DESIGN
4. AU484 MICROPROCESSOR AND EMBEDDED SYSTEMS
5. AU486 NOISE, VIBRATION AND HARSHNESS
6. BM482 BIOMEDICAL INSTRUMENTATION
7. BM484 MEDICAL IMAGING & IMAGE PROCESSING TECHNIQUES
8. BT461 DESIGN OF BIOLOGICAL WASTE WATER SYSTEMS
9. BT362 SUSTAINABLE ENERGY PROCESSES
10. CH482 PROCESS UTILITIES AND PIPE LINE DESIGN
11. CH484 FUEL CELL TECHNOLOGY
12. CE482 ENVIRONMENTAL IMPACT ASSESSMENT
13. CE484 APPLIED EARTH SYSTEMS
14. CE486 GEO INFORMATICS FOR INFRASTRUCTURE MANAGEMENT
15. CE488 DISASTER MANAGEMENT
16. CE492 ENVIRONMENT HEALTH AND SAFETY
17. CS482 DATA STRUCTURES
18. CS484 COMPUTER GRAPHICS
19. CS486 OBJECT ORIENTED PROGRAMMING
20. CS488 C # AND .NET PROGRAMMING
21. EE482 ENERGY MANAGEMENT AND AUDITING
22. EE484 CONTROL SYSTEMS
23. EE486 SOFT COMPUTING
24. EE488 INDUSTRIAL AUTOMATION

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25. EE492 INSTRUMENTATION SYSTEMS
26. EC482 BIOMEDICAL ENGINEERING
27. FT482 FOOD PROCESS ENGINEERING
28. FT484 FOOD STORAGE ENGINEERING
29. FT486 FOOD ADDITIVES AND FLAVOURING
30. IE482 FINANCIAL MANAGEMENT
31. IE484 INTRODUCTION TO BUSINESS ANALYTICS
32. IE486 DESIGN AND ANALYSIS OF EXPERIMENTS
33. IE488 TOTAL QUALITY MANAGEMENT
34. IC482 BIOMEDICAL SIGNAL PROCESSING
35. IT482 INFORMATION SYSTEM MANAGEMENT
36. MA482 APPLIED LINEAR ALGEBRA
37. MA484 OPERATIONS RESEARCH
38. MA486 ADVANCED NUMERICAL COMPUTATIONS
39. MA488 CRYPTOGRAPHY (Not for IT branch)
40. ME469 FINITE ELEMENT ANALYSIS
41. ME482 ENERGY CONSERVATION AND MANAGEMENT
42. ME471 OPTIMIZATION TECHNIQUES
43. MP482 PRODUCT DEVELOPMENT AND DESIGN
44. MP469 INDUSTRIAL PSYCHOLOGY & ORGANIZATIONAL BEHAVIOUR
45. MP484 PROJECT MANAGEMENT
46. MT482 INDUSTRIAL SAFETY
47. MR482 MECHATRONICS
48. FS482 RESPONSIBLE ENGINEERING
49. SB482 DREDGERS AND HARBOUR CRAFTS
50. HS482 PROFESSIONAL ETHICS