

## Course Structure

### B. TECH. FIRST SEMESTER (Common for All Engineering Branches)

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	RAS103	Engineering Maths	3	1	0	4
2	RAS101	Engineering Physics-I	3	1	0	4
3	REE101/ RME101	Basic Electrical Engg/ Elements of Mechanical Engg	3	1	0	4
4	RAS 104/ RCS101	Professional Communication/ Computer System & Programming in	3	1	0	3
5	REC101/ RAS102	Basic Electronics/ Engineering Chemistry	3	1	0	4
6	RAS151/ RAS152	Engg. Physics Lab/ Engg. Chemistry Lab	0	0	2	1
7	REE151/ RME151	Basic Electrical Engg Lab/ Elements of Mechanical Engg Lab	0	0	2	1
8	RAS 154/ RCS151	Professional Communication Lab/ Computer Prog. Lab	0	0	2	1
9	RME152/ RCE151	Workshop Practice/ Computer Aided Engg. Graphics	0	0	3	2
	total					24

### B. TECH. SECOND SEMESTER (Common for All Engineering Branches)

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	RAS203	Engineering Maths-II	3	1	0	4
2	RAS201	Engineering Physics-II	3	1	0	4
3	REE201/ RME201	Basic Electrical Engg/ Elements of Mechanical Engg	3	1	0	4
4	RAS 204/ RCS201	Professional Communication/ Computer System & Programming in	3	1	0	3
5	REC201/ RAS202	Basic Electronics/ Engineering Chemistry	3	1	0	4
6	RAS251/ RAS252	Engg. Physics Lab/ Engg. Chemistry Lab	0	0	2	1
7	REE251/ RME251	Basic Electrical Engg Lab/ Elements of Mechanical Engg Lab	0	0	2	1
8	RAS 254/	Professional Communication	0	0	2	1

	RCS251	Lab/ Computer Progm. Lab				
9	RME252/ RCE251	Workshop Practice/ Computer Aided Engg. Graphics	0	0	3	2
	total					24

### B. TECH. THIRD SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NAS-301/ NOE-031- NOE-039	Engg. MathematicsIII/Science based Electives*	3	1	0	4
2	NEC-301	Network Analysis & Synthesis	3	1	0	4
3	NEC-302	Fundamental of Electronic Devices	3	1	0	4
4	NEC-303	Signals and Systems	3	1	0	4
5	NHU-301/ NHU-302	Industrial Psychology/Industrial Sociology	2	0	0	2
6	NEC-304	Switching Theory & Logic Design	2	1	0	3
7	AUC-001/ AUC-002	Human Values & Professional Ethics/Cyber Security	2	0	0	--
8	NEC-351	Network Analysis & Synthesis Lab.	0	0	3	1
9	NEC-352	Electronics Workshop & PCB Design	0	0	3	1
10	NEC-353	Logic Design Lab	0	0	2	1
11	NEC-354	Electronic Device Lab.	0	0	2	1
12	NGP-301	NGP				--
	total					25

Science Based Open Elective:

NOE031 Introduction to Soft Computing (Neural Network, Fuzzy Logic and Genetic Algorithm)

NOE032 Nano Sciences

NOE033 Laser Systems and Applications

NOE034 Space Sciences

NOE035 Polymer Science & Technology

NOE036 Nuclear Science

NOE037 Material Science

NOE038 Discrete Mathematics

NOE039 Applied Linear Algebra

### B. TECH. FOURTH SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NAS-401/ NOE-041- NOE-049	Engg. MathematicsIII/Science based Electives*	3	1	0	4
2	NEC-401	Data Structure	3	1	0	4
3	NEC-402	Electronic Circuits	3	1	0	4
4	NEC-408	Electronic Measurements & Instrumentation	3	1	0	4
5	NHU-401/ NHU-402	Industrial Psychology/Industrial Sociology	2	0	0	2
6	NEC-404	Electromagnetic Field Theory (EMFT)	2	1	0	3
7	AUC-001/ AUC-002	Human Values & Professional Ethics/Cyber Security	2	0	0	--
8	NEC-451	Data Structure Lab.	0	0	3	1
9	NEC-452	Electronic Circuits Lab	0	0	3	1
10	NEC-453	Digital Electronics Lab.	0	0	2	1
11	NEC-454	Electronics Measurement Lab.	0	0	2	1
12	NGP-401	NGP				--
	total					25

Science Based Open Elective:

NOE-041 Introduction to Soft Computing (Neural Network, Fuzzy Logic and Genetic Algorithm)

NOE-042 Nano Sciences

NOE-043 Laser Systems and Applications

NOE-044 Space Sciences

NOE-045 Polymer Science & Technology

NOE-046 Nuclear Science

NOE-047 Material Science

NOE-048 Discrete Mathematics

NOE-049 Applied Linear Algebra

### B. TECH. FIFTH SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NEC 501R	Integrated Circuits	3	1	0	4
2	NEC 502	Principles of Communication	3	1	0	4
3	NEC 503	Microprocessors	3	1	0	4
4	NIC 501	Control System -I	3	1	0	4
5	NEC 504	Antenna and Wave	2	1	0	3

		Propagation				
6	NHU501	Engineering Economics	2	0	0	2
7	NEC 551R	Integrated Circuits Lab	0	0	2	1
8	NIC 551	Control System Lab	0	0	2	1
9	NEC 552	Communication Lab - 1	0	0	2	1
10	NEC 553	Microprocessors Lab	0	0	2	1
12	NGP-501	NGP				--
	total					25

### B. TECH. SIXTH SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NEC 601	Microwave Engineering	3	1	0	4
2	NEC 602	Digital Communication	3	1	0	4
3	NEC 603	Integrated Circuit Technology	3	1	0	4
4	NEC0 _	Departmental Elective -I	3	1	0	4
5	NEC0 _	Departmental Elective - II	2	1	0	3
6	NHU601	Industrial Management	2	0	0	2
7	NEC 651	Antenna and Microwave Lab	0	0	2	1
8	NEC 652	Communication Lab - II	0	0	2	1
9	NEC 653	CAD of Electronics Lab	0	0	2	1
10	NEC 654R	Seminar	0	0	1	1
12	NEC 655	Microcontrollers for Embedded Systems Lab	0	0	1	1
13	NGP-601	NGP				--
	total					26

#### Departmental Elective –I

1. NEC011
  2. NEC 012
  3. NEC 013
  4. NEC 014
  5. NEC013R
- Digital Signal Processing  
Computer Architecture and Organization  
Artificial Neural Network  
Advance Semiconductor Devices  
Real Time Systems

#### Departmental Elective - II

1. NEC 021
2. NEC 022R

3. NEC 023  
 4. NEC 024R  
 Industrial Electronics  
 Microcontroller for Embedded Systems  
 Analog Signal Processing  
 Advance Digital Design using Verilog

### B. TECH. SEVEN SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NOE 07*	Open Elective-I**	3	1	0	4
2	NEC 03*	Departmental Elective-III	3	1	0	4
3	NEC 701	Optical Communication	3	1	0	4
4	NEC 702	Data Communication Networks	3	1	0	4
5	NEC 703	VLSI Design	3	1	0	4
6	AUC 001 *	Human Values & Professional Ethics	2	0	0	-
7	NEC 751	Optical Communication & Networking Lab	0	0	2	1
8	NEC 752	Electronics Circuit Design	0	0	3	2
9	NEC 753	Industrial Training VivaVoce	0	0	2	1
10	NEC 754	Project	0	0	2	1
13	NGP-701	NGP				1
	total					26

\*\* Open Electives-I

NOE-071 Entrepreneurship Development

NOE-072 Quality Management

NOE-073 Operation Research

NOE-074 Introduction to Biotechnology

NOE-075 Micro and smart systems

NEC 03\* Departmental Elective III

1. NEC 031 Information Theory & Coding

2. NEC 032 Digital Image Processing

3. NEC 033 Voice Over IP

4. NEC 034 Filter Design

5. NEC 035 Applied Fuzzy Electronic Systems

## B. TECH. EIGHT SEMESTER

SI No.	Subject Code	Subject Name	L	T	P	Credit
1	NOE 08*	Open Elective-II**	3	1	0	4
2	NEC 04*	Departmental Elective-IV	3	1	0	4
3	NEC 801	Wireless & Mobile Communication	3	1	0	4
4	NEC 802	Optical Network	3	1	0	3
5	AUC 001 *	Human Values & Professional Ethics	2	0	0	--
6	NEC 851	Project	0	0	12	8
13	NGP-801	NGP				1
	total					24

\*\* Open Electives-II

NOE-081 Non Conventional Energy Resources

NOE-082 Nonlinear Dynamic system

NOE-083 Product Development

NOE-084 Automation and Robotics

Elective – IV NEC 04\* Departmental Elective IV

1. NEC 041 Electronic Switching
2. NEC 042 Digital System Design using VHDL
3. NEC 043 Speech Processing
4. NEC 044 Advanced Display Technologies & Systems
5. NEC 045 Satellite & RADAR systems