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1.3.1

Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum

Greater Noida Institute of Technology (Engg. Institute)

Plot No. 7, Knowledge Park II, Greater Noida
Uttar Pradesh 201310 India

GNIOT ENGG. INSTITUTE
Plot No. 7,Knowledge Park II, Greater Noida
Uttar Pradesh (India) 201310
www.gniot.net.in

Criteria – 1

Key indicator – 1.3.1

Institution integrates crosscutting issues relevant to Professional Ethics, Gender Equality, Human Values, Environment and Sustainability in transacting the Curriculum

Session 2018-2019

INDEX

Courses which address the Environment and Sustainability, Gender Equality, Human Values, Professional Ethics, into the Curriculum

Session 2018-2019

Sl. No	Year	Semester	Subject Code	Subject Name	Category
1	SECOND	3rd / 4th	RAS302 /RAS402	Environment & Ecology	Environment and Sustainability
2	FOURTH	8th	NOE-081	Non Conventional Energy Resources	Environment and Sustainability
3	FOURTH (CE)	7th	NCE-033	Environmental Geotechnology	Environment and Sustainability
4	FOURTH (CE)	7th	NCE-034	Industrial Pollution Controll & Environmental Audit	Environment and Sustainability
5	FOURTH (CE)	6th	NCE-063	Ground Water Management	Environment and Sustainability
6	SECOND	3rd / 4th	RVE301/ RVE401	Universal Human Values & Professional Ethics	Human Values
7	SECOND (MBA)	3rd	RVE301	Universal Human Values & Professional Ethics	Human Values
8	FIRST (MCA)	2nd	RHU001	Universal Human Values & Professional Ethics	Human Values
9	FIRST (MBA)	1st	KMB105	Organisational Behaviour	Professional Ethics
10	FIRST (MBA)	1st	KMB107	Business Communication	Professional Ethics
11	THIRD	5th	RAS501	MANEGERIAL ECONOMICS	Professional Ethics
12	THIRD	5th/6th	RAS502/ RAS602	INDUSTRIAL SOCIOOLOGY	Professional Ethics
13	THIRD	6th	RAS601	INDUSTRIAL MANAGEMENT	Professional Ethics

Director

Session 2017-2018
Session 2018-2019

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY LUCKNOW

Study & Evaluation Scheme with Syllabus

For

B.Tech. Second Year

(Computer Science and Engineering, Computer Engg. & Information Technology)

On

Choice Based Credit System

(Effective from the Session: 2017-18)

Director

2nd Year III-SEMESTER

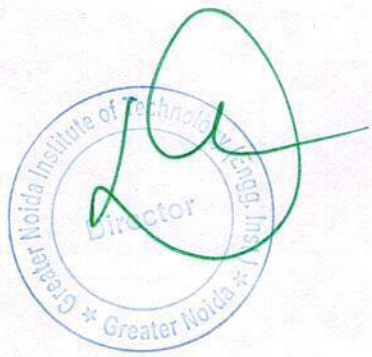
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	RAS301/ ROE030, 032 to 037, 039	Mathematics-III/ Science Based OE	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics / Environment & Ecology	3-0-0	70	20	10	100	3
3.	REC301	Digital Logic Design	3-0-0	70	20	10	100	3
4.	RCS301	Discrete Structures & Theory of Logic	3-0-0	70	20	10	100	3
5.	RCS302	Computer Organization and Architecture	3-0-0	70	20	10	100	3
6.	RCS305	Data Structures	3-1-0	70	20	10	100	4
7.	REC351	Digital Logic Design Lab	0-0-2	50	30	20	100	1
8.	RCS351	Discrete Structure & Logic Lab	0-0-2	50	30	20	100	1
9.	RCS352	Computer Organization Lab	0-0-2	50	30	20	100	1
10.	RCS355	Data Structures Using C/ Java Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
TOTAL							**1000**	**24**

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/040 Manufacturing Process
b. ROE032/042 Nano Science
c. ROE033/043 Laser System and Application
d. ROE034/044 Space Science
e. ROE035/045 Polymer Science & Technology
f. ROE036/046 Nuclear Science
g. ROE037/047 Material Science
h. ROE039/049 Applied Linear Algebra



2nd Year IV-SEMESTER

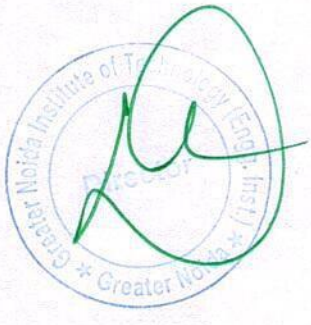
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE040, 042 to 047, 049/ RAS401	Science Based OE/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	REC405	Introduction to Microprocessor	3-0-0	70	20	10	100	3
4.	RCS401	Operating Systems	3-0-0	70	20	10	100	3
5.	RCS402	Software Engineering	3-0-0	70	20	10	100	3
6.	RCS403	Theory of Automata and Formal Languages	3-1-0	70	20	10	100	4
7.	RCS451	Operating Systems Lab	0-0-2	50	30	20	100	1
8.	RCS452	Software Engineering Lab	0-0-2	50	30	20	100	1
9.	RCS453	TAFL Lab	0-0-2	50	30	20	100	1
10.	RCS454	Python Language Programming Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
TOTAL							**1000**	**24**

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/040 Manufacturing Process
b. ROE032/042 Nano Science
c. ROE033/043 Laser System and Application
d. ROE034/044 Space Science
e. ROE035/045 Polymer Science & Technology
f. ROE036/046 Nuclear Science
g. ROE037/047 Material Science
h. ROE039/049 Applied Linear Algebra



Session 2018-2019
Session 2019-2020

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW

Evaluation Scheme & Syllabus

For

B. Tech. Third Year

(Computer Science and Engineering)

(Computer Science and Information Technology)

On

Choice Based Credit System

(Effective from the Session: 2018-19)

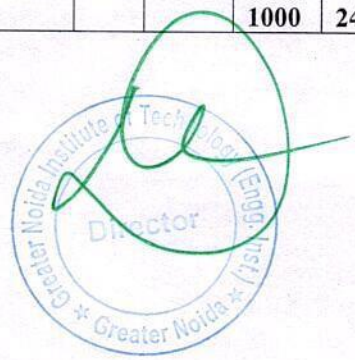
DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW

B. Tech. (CSE\CSIT)
FIFTH SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Theory/ Lab (ESE) Marks	Sessional		Total	Credit
					Test	Assign/Att.		
1	RAS501	MANEGERIAL ECONOMICS	3---0---0	70	20	10	100	3
2	RAS502/ RUC501	INDUSTRIAL SOCIOOLOGY /CYBER SECURITY	3---0---0	70	20	10	100	3
3	RCS-501	Database Management Systems	3---0---0	70	20	10	100	3
4	RCS-502	Design and Analysis of Algorithm	3---1---0	70	20	10	100	4
5	RCS-503	Principles of Programming Languages	3---0---0	70	20	10	100	3
6	CS-Elective-1	DEPTT ELECTIVE COURSE-1	3---1---0	70	20	10	100	4
7	RCS-551	Database Management Systems Lab	0---0---2	50	-	50	100	1
8	RCS-552	Design and Analysis of Algorithm Lab	0---0---2	50	-	50	100	1
9	RCS-553	Principles of Programming Languages Lab	0---0---2	50	-	50	100	1
10	RCS-554	Web Technologies Lab	0---0---2	50	-	50	100	1
	TOTAL						**1000**	**24**

SIXTH SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Theory/ Lab (ESE) Marks	Sessional		Total	Credit
					Test	Assign/Att.		
1	RAS601	INDUSTRIAL MANAGEMENT	3---0---0	70	20	10	100	3
2	RAS602 / RUC601	INDUSTRIAL SOCIOLOGY/ CYBER SECURITY	3---0---0	70	20	10	100	3
3	RCS-601	Computer Networks	3---0---0	70	20	10	100	3
4	RCS-602	Compiler Design	3---1---0	70	20	10	100	4
5	RCS-603	Computer Graphics	3---0---0	70	20	10	100	3
6	CS-Elective-2	DEPTT ELECTIVE COURSE-2	3---1---0	70	20	10	100	4
7	RCS-651	Computer Networks Lab	0---0---2	50	-	50	100	1
8	RCS-652	Compiler Design Lab	0---0---2	50	-	50	100	1
9	RCS-653	Computer Graphics Lab	0---0---2	50	-	50	100	1
10	RCS-654	Data Warehousing & Data Mining Lab	0---0---2	50	-	50	100	1
	TOTAL						**1000**	**24**



DEPARTMENTAL ELECTIVES

CS-ELECTIVE -1: Computer Science and Engineering Elective-1

RIT-051: SOFTWARE PROJECT MANAGEMENT

RIT-052: SOFTWARE TESTING & AUDIT

RCS-051: OPERATION RESEARCH

RCS-052: WEB TECHNOLOGIES

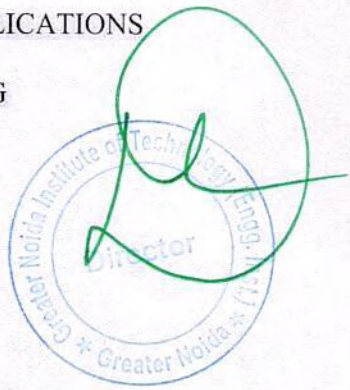
CS-ELECTIVE-2: Computer Science Departmental Elective-2

RIT-061: DESIGN AND DEVELOPMENT OF APPLICATIONS

RIT-062: DATAWAREHOUSING & DATA MINING

RCS-061: INTERNET OF THINGS

RCS-062: NEURAL NETWORK



Session 2017-2018
Session 2018-2019

Dr.A.P.J.Abdulkalam Technical University, UttarPardesh,Lucknow

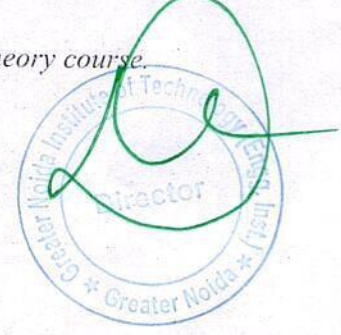
(Formerly Uttar Pradesh Technical University)

STUDY EVALUATION SCHEME
B. TECH. COMPUTER SCIENCE & ENGINEERING
YEAR forth, SEMESTER –VII
(Effective from the session: 2016-17)

S.No.	Subject Code	Subject	Period	Evaluation Scheme				Total	Credit
				Sessional			Exam		
				CT	TA	Total			
1		**Open Elective I**	3-1-0	30	20	50	100	150	4
2	NCS-701	Distributed System	3-1-0	30	20	50	100	150	4
3	NCS-702	Artificial Intelligence	3-1-0	30	20	50	100	150	4
4		**Departmental Elective III**	3-1-0	30	20	50	100	150	4
5		**Departmental Elective IV**	3-1-0	30	20	50	100	150	4
Practical / Training /Projects									
6	NCS-751	Distributed System *	0-0-2	-	20	20	30	50	1
7	NCS-752	Project	0-0-6	-	100	100	-	100	3
8	NCS-753	Industrial Training	0-0-2	-	50	50	-	50	1
9	GP-701	General Proficiency	-	-	-	-	-	50	
		Total	15-5-10					1000	25

1. *Practical Training done after 6th Semester would be evaluated in 7th semester through Report and Viva-voce.*
2. *Project has to be initiated in 7th semester beginning and completed by the end of 8th semester with proper report and demonstration.*

** At least 10 problems are to be considered based on corresponding theory course.*



Dr.A.P.J.Abdul kalam Technical University,UttarPardesh,Lucknow

(Formerly Uttar Pradesh Technical University)

STUDY EVALUATION SCHEME

B. TECH. COMPUTER SCIENCE & ENGINEERING

YEAR forth, SEMESTER –VIII

(Effective from the session: 2016-17)

SNo	Subject Code	Subject	Period	Evaluation Scheme				Total	Credit
				Sessional			Exam		
				CT	TA	Total			
1		**Open Elective II**	3-1-0	30	20	50	100	150	4
2	NCS-801	Digital Image Processing	3-1-0	30	20	50	100	150	4
3		**Departmental Elective V**	3-1-0	30	20	50	100	150	4
4		**Departmental Elective VI**	3-1-0	30	20	50	100	150	4
Practical's / Training /Projects									
5	NCS-851	Seminar	0-0-3	-	50	50	-	50	2
6	NCS-852	Project	0-0-12	-	100	100	200	300	7
7	GP-801	General Proficiency	-	-	-	-	-	50	
		Total	12-4-15					1000	25

Open Elective I

1. NOE-071 Entrepreneurship Development
2. NOE-072 Quality Management
3. NOE-073 Operations Research
4. NOE-074 Introduction to Bio Technology
5. NOE-075 Mobile Application Development
6. NOE-076 Ethical Hacking and Prevention
7. NOE-077 Software Project Management

Open Elective II

1. NOE-081 Non Conventional Energy Resources
2. NOE-082 Non Linear Dynamics Systems
3. NOE-083 Product Development
4. NOE-084 Automation and Robotics

Departmental Elective III

1. NCS-071 Software Testing and Audit
2. NCS-072 Neural Network
3. NCS-073 Computer Vision

Departmental Elective IV

1. NCS-07 4 High Speed Network
2. NCS-075 Android Operating System
3. NCS-076 Service Oriented Architecture
4. NIT-701 Cryptographic & Network Security

Departmental Elective V

1. NCS-080 Pattern Recognition
2. NCS-081 High Performance Computing
3. NCS-082 Real Time System
4. NCS-083 Cluster Computing
5. NCS-084 Grid Computing

Departmental Elective VI

1. NCS-085 Data Compression
2. NCS-086 Quantum Computing
3. NCS-087 Embedded Systems
4. NCS-088 Semantic Web and Web Services

2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY LUCKNOW

Study & Evaluation Scheme with Syllabus

For

B.Tech. Second Year

Information Technology

On

Choice Based Credit System

(Effective from the Session: 2017-18)

2018-19

2nd Year III-SEMESTER

S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	RAS301/ ROE030, 032 to 037, 039	Mathematics-III/ Science Based OE	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics / Environment & Ecology	3-0-0	70	20	10	100	3
3.	REC301	Digital Logic Design	3-0-0	70	20	10	100	3
4.	RCS301	Discrete Structures & Theory of Logic	3-0-0	70	20	10	100	3
5.	RCS302	Computer Organization and Architecture	3-0-0	70	20	10	100	3
6.	RCS305	Data Structures	3-1-0	70	20	10	100	4
7.	REC351	Digital Logic Design Lab	0-0-2	50	30	20	100	1
8.	RCS351	Discrete Structure & Logic Lab	0-0-2	50	30	20	100	1
9.	RCS352	Computer Organization Lab	0-0-2	50	30	20	100	1
10.	RCS355	Data Structures Using C/ Java Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
TOTAL							**1000**	**24**

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e. ROE035/045 Polymer Science & Technology
f. ROE036/046 Nuclear Science
g. ROE037/047 Material Science
h. ROE039/049 Applied Linear Algebra

Greater Noida Institute of Technology (Engg. Inst.) Director Greater Noida

2018-19

2nd Year IV-SEMESTER

S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE040, 042 to 047, 049/ RAS401	Science Based OE/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	REC406	Information Theory and Coding	3-0-0	70	20	10	100	3
4.	RCS401	Operating Systems	3-0-0	70	20	10	100	3
5.	RCS402	Software Engineering	3-0-0	70	20	10	100	3
6.	RCS403	Theory of Automata and Formal Languages	3-1-0	70	20	10	100	4
7.	RCS451	Operating Systems Lab	0-0-2	50	30	20	100	1
8.	RCS452	Software Engineering Lab	0-0-2	50	30	20	100	1
9.	RCS453	TAFL Lab	0-0-2	50	30	20	100	1
10.	RCS454	Python Language Programming Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
	TOTAL						**1000**	**24**

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d. ROE034/044 Space Science
e. ROE035/045 Polymer Science & Technology
f. ROE036/046 Nuclear Science
g. ROE037/047 Material Science
h. ROE039/049 Applied Linear Algebra

Greater Noida Institute of Technology (Engg. Inst.)
Director

2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW

Evaluation Scheme & Syllabus

For

B. Tech. Third Year

(Information Technology)

On

Choice Based Credit System

(Effective from the Session: 2018-19)

2018-19

B. Tech. (Information Technology)

FIFTH EMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Th/Lab (ESE) Marks	Sessional		Total	Credit
					Test	Assig/ Att.		
1	RAS501	MANEGERIAL ECONOMICS	3---0---0	70	20	10	100	3
2	RAS502/ RUC501	INDUSTRIAL SOCIOLOGY /CYBER SECURITY	3---0---0	70	20	10	100	3
3	RCS-501	Database Management Systems	3---0---0	70	20	10	100	3
4	RCS-502	Design and Analysis of Algorithm	3---1---0	70	20	10	100	4
5	RCS-503	Principles of Programming Languages	3---0---0	70	20	10	100	3
6	IT-Elective-1	DEPTT ELECTIVE COURSE-1	3---1---0	70	20	10	100	4
7	RCS-551	Database Management Systems Lab	0---0---2	50	-	50	100	1
8	RCS-552	Design and Analysis of Algorithm Lab	0---0---2	50	-	50	100	1
9	RCS-553	Principles of Programming Languages Lab	0---0---2	50	-	50	100	1
10	RIT-554	Object Oriented Techniques Lab	0---0---2	50	-	50	100	1
	TOTAL						**1000**	**24**

SIXTH SEMESTER

Sl No.	Subject Code	Subject Name	L-T-P	Th/Lab (ESE) Marks	Sessional		Total	Credit
					Test	Assig/ Att.		
1	RAS601	INDUSTRIAL MANAGEMENT	3---0---0	70	20	10	100	3
2	RAS602 / RUC601	CYBER SECURITY/ INDUSTRIAL SOCIOLOGY	3---0---0	70	20	10	100	3
3	RCS-601	Computer Networks	3---0---0	70	20	10	100	3
4	RCS-602	Compiler Design	3---1---0	70	20	10	100	4
5	RCS-603	Web Technology	3---0---0	70	20	10	100	3
6	IT-Elective-2	DEPTT ELECTIVE COURSE-2	3---1---0	70	20	10	100	4
7	RCS-651	Computer Networks Lab	0---0---2	50	-	50	100	1
8	RCS-652	Compiler Design Lab	0---0---2	50	-	50	100	1
9	RCS-653	Web Technology Lab	0---0---2	50	-	50	100	1
10	RCS-654	Data Warehousing & Data Mining Lab	0---0---2	50	-	50	100	1
	TOTAL						**1000**	**24**

2018-19

B. Tech. (Information Technology)

DEPARTMENTAL ELECTIVES

IT-ELECTIVE -1: Information Technology Elective-1

RIT-E11: SOFTWARE PROJECT MANAGEMENT

RIT-E12: SOFTWARE TESTING & AUDIT

RIT-E13: OBJECT ORIENTED TECHNIQUES

RCS-E11: OPERATION RESEARCH

IT-ELECTIVE-2: Information Technology Elective-2

RIT-E21: DESIGN AND DEVELOPMENT OF APPLICATIONS

RIT-E22: DATAWAREHOUSING & DATA MINING

RCS-E21: INTERNET OF THINGS

RCS-E22: NEURAL NETWORK

2018-19

Dr.A.P.J.Abdul
kalam Technical University,UttarPardesh,Lucknow
(Formerly Uttar Pradesh Technical University)

STUDY EVALUATION SCHEME
INFORMATION TECHNOLOGY
YEAR forth, SEMESTER –VII
(Effective from the session: 2016-17)

S.No.	Subject Code	Subject	Period	Evaluation Scheme				Total	Credit
				Sessional			Exam		
				CT	TA	Total			
1		**Open Elective I**	3-1-0	30	20	50	100	150	4
2	NIT-701	Cryptography & Network Security	3-1-0	30	20	50	100	150	4
3	NCS-702	Artificial Intelligence	3-1-0	30	20	50	100	150	4
4		**Departmental Elective III**	3-1-0	30	20	50	100	150	4
5		**Departmental Elective IV**	3-1-0	30	20	50	100	150	4
Practical / Training /Projects									
6	NIT-751	Cryptography & Network Security*	0-0-2	-	20	20	30	50	1
7	NCS-752	Project	0-0-6	-	100	100	-	100	3
8	NCS-753	Industrial Training	0-0-2	-	50	50	-	50	1
9	GP-701	General Proficiency	-	-	-	-	-	50	
		Total	15-5-10					1000	25

1. *Practical Training done after 6th Semester would be evaluated in 7th semester through Report and Viva-voce.*
2. *Project has to be initiated in 7th semester beginning and completed by the end of 8th semester with proper report and demonstration.*

** At least 10 problems are to be considered based on corresponding theory course.*

Noida Institute of Technology (Engg. Inst.) Director

2018-19

Dr.A.P.J.Abdulkalam Technical University,UttarPardesh,Lucknow

(Formerly Uttar Pradesh Technical University)

STUDY EVALUATION SCHEME
INFORMATION TECHNOLOGY
YEAR forth, SEMESTER –VIII
(Effective from the session: 2016-17)

SNo	Subject Code	Subject	Period	Evaluation Scheme				Total	Credit
				Sessional			Exam		
				CT	TA	Total			
1		**Open Elective II**	3-1-0	30	20	50	100	150	4
2	NIT-801	Mobile Computing	3-1-0	30	20	50	100	150	4
3		**Departmental Elective V**	3-1-0	30	20	50	100	150	4
4		**Departmental Elective VI**	3-1-0	30	20	50	100	150	4
Practicals / Training /Projects									
5	NIT-851	Seminar	0-0-3	-	50	50	-	50	2
6	NCS-852	Project	0-0-12	-	100	100	200	300	7
7	GP-801	General Proficiency	-	-	-	-	-	50	
		Total	12-4-15					1000	25

** At least 10 problems are to be considered based on corresponding theory course.*

Greater Noida Institute of Technology (Engg. Inst.)
Director

2018-19

Open Elective I

NOE-071 Entrepreneurship Development
NOE-072 Quality Management
NOE-073 Operations Research
NOE-074 Introduction to Bio Technology
NOE-075 Mobile Application Development
NOE-076 Ethical Hacking and Prevention
NOE-077 Software Project Management

Open Elective II

1. NOE-081 Non Conventional Energy Resources
2. NOE-082 Non Linear Dynamics Systems
3. NOE-083 Product Development
4. NOE-084 Automation and Robotics

Departmental Elective III

1. NCS-071 Software Testing and Audit
2. NCS-072 Neural Network
3. NIT-071 IT in Forensic Science

Departmental Elective IV

1. NCS-074 High Speed Network
2. NCS-075 Android Operating System
3. NCS-076 Service Oriented Architecture
4. NCS-701 Distributed System
5. NCS-073 Computer Vision

Departmental Elective V

1. NCS-080 Pattern Recognition
2. NCS-082 Real Time System
3. NCS-084 Grid Computing
4. NCS-801 Digital Image Processing
5. NIT-080 Natural Language Processing

Departmental Elective VI

1. NCS-085 Data Compression
2. NCS-087 Embedded Systems
3. NCS-088 Semantic Web and Web Services
4. NIT-081 Software Quality Engineering
5. NIT-082 Software Reliability

Greater Noida Institute of Technology (Engg. Inst.)
Director

2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
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Study & Evaluation Scheme with Syllabus
for
B.Tech. Second Year

Electronics Engineering / Electronics & Communication Engineering / Electronics & Telecommunication Engineering / Electronics & Instrumentation Engineering / Instrumentation & Control Engineering / Applied Electronics & Control Engineering / Biomedical Engineering

On

Choice Based Credit System

(Effective from the Session: 2017-18)

2018-19

2nd Year III-SEMESTER

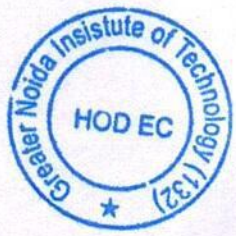
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE030 to 039/ RAS301	Science Based Open Elective/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics/ Environment & Ecology	3-0-0	70	20	10	100	3
3.	REE305	Network Analysis and Synthesis	3-0-0	70	20	10	100	3
4.	REC301	Digital Logic Design	3-0-0	70	20	10	100	3
5.	REC302	Electronic Devices and Circuits	3-1-0	70	20	10	100	4
6.	REC303	Signals & Systems	3-0-0	70	20	10	100	3
7.	REC351	Digital Logic Design Lab	0-0-2	50	30	20	100	1
8.	REC352	Electronic Devices and Circuits Lab	0-0-2	50	30	20	100	1
9.	REC353	Signals & Systems Lab	0-0-2	50	30	20	100	1
10.	REC354	Electronics Workshop & PCB Design Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra



2018-19

2nd Year IV-SEMESTER

S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	RAS401/ ROE040 to 049	Mathematics-III/ Science Based Open Elective	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	REC401	Microprocessors & Microcontrollers	3-0-0	70	20	10	100	3
4.	REC402	Electromagnetic Field Theory	3-1-0	70	20	10	100	4
5.	REC403	Electronic Measurement & Instrumentation	3-0-0	70	20	10	100	3
6.	RCS406	Data Structure & Algorithms	3-0-0	70	20	10	100	3
7.	REC451	Microprocessors & Microcontrollers Lab	0-0-2	50	30	20	100	1
8.	REC452	Advanced Electronics System Lab	0-0-2	50	30	20	100	1
9.	REC453	Electronic Measurement & Instrumentation Lab	0-0-2	50	30	20	100	1
10.	RCS456	Data Structure & Algorithms Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra

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2018-19

LIST OF ELECTIVES:

Elective – III 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

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

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2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

EVALUATION SCHEME & SYLLABUS FOR

B. TECH. III YEAR

ELECTRONICS ENGINEERING/ ELECTRONICS & COMMUNICATION ENGINEERING/ ELECTRONICS & TELECOMMUNICATION ENGINEERING

ON

CHOICE BASED CREDIT SYSTEM (CBCS)

[Effective from the Session: 2018-19]

Director

2018-19

EVALUATION SCHEME

B.TECH. ELECTRONICS ENGINEERING, B.TECH. ELECTRONICS & COMMUNICATION ENGINEERING, B.TECH. ELECTRONICS & TELECOMMUNICATION ENGINEERING

YEAR 3rd/ SEMESTER V

Sr. No.	Sub Code	Subject Name	L-T-P	Th/Lab Marks	Sessional		Total	Credit
				ESE	CT	TA		
1	RAS501	Managerial Economics	3--0--0	70	20	10	100	3
2	RAS502 /RUC501	Sociology/Cyber Security	3--0--0	70	20	10	100	3
3	REC501A	Integrated Circuits	3--0--0	70	20	10	100	3
4	REC502	Principles of Communication	3--1--0	70	20	10	100	4
5	REC503	Digital Signal Processing	3--0--0	70	20	10	100	3
6	REC051-055	Deptt. Elective Course 1	3--1--0	70	20	10	100	4
7	REC551	Integrated Circuits Lab	0--0--2	50		50	100	1
8	REC552	Communication Lab – I	0--0--2	50		50	100	1
9	REC553	Digital Signal Processing Lab	0--0--2	50		50	100	1
10	REC554	CAD of Electronics Lab-I	0--0--2	50		50	100	1
	TOTAL			620	120	260	1000	24

DEPTT ELECTIVE COURSE–1

1. REC051 - Antenna & wave propagation
2. REC052 - Computer Architecture and Organization
3. REC053- Real Time Systems
4. REC054- Artificial Neural Networks
5. REC055- Advance Semiconductor devices

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Greater Noida Insistute of Technology (132) HOD EC

2018-19

EVALUATION SCHEME

B.Tech. Electronics Engineering, B.Tech. Electronics & Communication Engineering, B.Tech. Electronics & Telecommunication Engineering

YEAR 3rd/ SEMESTER VI

Sr. No	Sub Code	Subject Name	L-T-P	Th/LAB Marks	Sessional		Total	Credit
				ESE	CT	TA		
1	RAS601	Industrial Management	3--0--0	70	20	10	100	3
2	RAS602 / RUC601	Sociology /Cyber Security	3--0--0	70	20	10	100	3
3	RIC603	Control System I	3--0--0	70	20	10	100	3
4	REC601	Microwave Engineering	3--1--0	70	20	10	100	4
5	REC602	Digital Communication	3--0--0	70	20	10	100	3
6	REC061 - 065	Deptt. Elective Course 2	3--1--0	70	20	10	100	4
7	REC-651	Microwave Engg Lab	0--0--2	50		50	100	1
8	REC-652	Communication Lab- II	0--0--2	50		50	100	1
9	RIC-653	Control System Lab-I	0--0--2	50		50	100	1
10	RIC-651	Microcontrollers For Embedded Systems Lab	0--0--2	50		50	100	1
	TOTAL			620	120	260	1000	24

DEPTT ELECTIVE COURSE–2

1. REC061 - Industrial Electronics
2. REC062 - Microcontroller for Embedded Systems
3. REC063 - Analog Signal Processing
4. REC064 - Advance Digital Design Using Verilog
5. REC065- RADAR Engineering

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2018-19

AKTU, LUCKNOW, U.P

Study and Evaluation Scheme B. Tech. in Electronics Engg/Electronics & Communication Engg/Electronics & Telecommunication Engg

[Effective from the session 2016-17]

YEAR 4th, SEMESTER-VII

S. No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credit
						SESSIONAL EXAM.			ESE		
			L	T	P	CT	TA	Total			
THEORY SUBJECTS											
1.	NOE 07*	Open Elective-I**	3	1	0	30	20	50	100	150	4
2.	NEC 03*	Departmental Elective-III	3	1	0	30	20	50	100	150	4
3.	NEC 701	Optical Communication	3	1	0	30	20	50	100	150	4
4.	NEC 702B	Data Communication Networks	3	1	0	30	20	50	100	150	4
5.	NEC 703	VLSI Design	3	1	0	30	20	50	100	150	4
6.	AUC 001	*Human Values & Professional Ethics	2	0	0	15	10	25	50	75	-
PRACTICAL/DESIGN/DRAWING											
7.	NEC 751	Optical Communication & Networking Lab	0	0	2	-	20	20	30	50	1
8.	NEC 752A	Electronics Circuit Design Lab	0	0	3	-	20	20	30	50	2
9.	NEC 753	Industrial Training Viva-Voce	0	0	2	-	50	50	-	50	1
10.	NEC 754	Project	0	0	2	-	50	50	-	50	1
11.	NGP 701	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	**15**	**5**	**9**	**150**	**240**	**440**	**560**	**1000**	**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

Greater Noida Institute of Technology (Engg. Inst.) Director * Greater Noida *

Greater Noida Insistute of Technology (132) HOD EC

2018 -19

AKTU, LUCKNOW, U.P

Study and Evaluation Scheme B. Tech. in Electronics Engg/Electronics & Communication Engg/Electronics & Telecommunication Engg

[Effective from the session 2016-17]

YEAR 4th, SEMESTER-VIII

S. No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credit
						SESSIONAL EXAM.			ESE		
			L	T	P	CT	TA	Total			
THEORY SUBJECTS											
1.	NOE 08*	Open Elective-II**	3	1	0	30	20	50	100	150	4
2.	NEC 04*	Departmental Elective-IV	3	1	0	30	20	50	100	150	4
3.	NEC 801	Wireless & Mobile Communication	3	1	0	30	20	50	100	150	4
4.	NEC 802	Optical Network	3	1	0	30	20	50	100	150	3
5.	AUC 001	*Human Values & Professional Ethics	2	0	0	15	10	25	50	75	-
PRACTICAL/DESIGN/DRAWING											
6.	NEC 851	Project	0	0	12	-	100	100	250	350	8
7.	NGP 801	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	**12**	**4**	**12**	**120**	**180**	**350**	**650**	**1000**	**24**

**** Open Electives-II**

NOE-081 Non Conventional Energy Resources
NOE-082 Nonlinear Dynamic system
NOE-083 Product Development
NOE-084 Automation and Robotics

Director

Greater Noida Institute of Technology Engg. Inst. * Greater Noida *

Greater Noida Insistute of Technology (132)

HOD EC

Session: 2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
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Study & Evaluation Scheme with Syllabus
for
B.Tech. Second Year
Electrical Engineering / Electrical & Electronics Engineering

On
Choice Based Credit System
(Effective from the Session: 2017-18)

Director

2nd Year III-SEMESTER

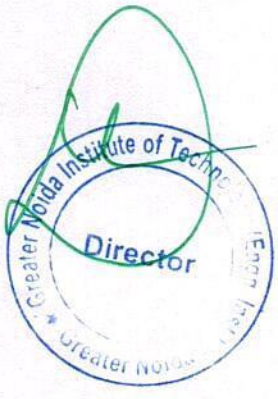
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE030 to 039/ RAS301	Science Based Open Elective/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics/ Environment & Ecology	3-0-0	70	20	10	100	3
3.	REC309	Analog & Digital Electronics	3-0-0	70	20	10	100	3
4.	REE301	Electrical & Electronics Engineering Materials	3-0-0	70	20	10	100	3
5.	REE302	Electrical Measurements & Instrumentation	3-0-0	70	20	10	100	3
6.	REE303	Basic Signals & Systems	3-1-0	70	20	10	100	4
7.	REE351	Electrical Workshop	0-0-2	50	30	20	100	1
8.	REE352	Electrical Measurements Lab	0-0-2	50	30	20	100	1
9.	REE353	Simulation Lab – I	0-0-2	50	30	20	100	1
10.	REC359	Electronics Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra



2nd Year IV-SEMESTER

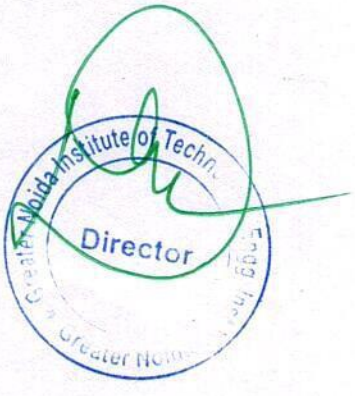
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	RAS401/ ROE040 to 049	Mathematics-III/ Science Based Open Elective	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	REC402	Electromagnetic Field Theory	3-1-0	70	20	10	100	4
4.	REE401	Power Plant Engineering	3-0-0	70	20	10	100	3
5.	REE402	Electrical Machines -I	3-0-0	70	20	10	100	3
6.	REE405	Network Analysis and Synthesis	3-0-0	70	20	10	100	3
7.	REE451	Simulation– II Lab	0-0-2	50	30	20	100	1
8.	REE452	Electrical Machines -I Lab	0-0-2	50	30	20	100	1
9.	REE453	Networks Lab	0-0-2	50	30	20	100	1
10.	REE454	Electrical Instrumentation Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra



Session: 2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

EVALUATION SCHEME & SYLLABUS FOR

B. TECH. III YEAR

ELECTRICAL ENGINEERING /
ELECTRICAL & ELECTRONICS ENGINEERING

ON

CHOICE BASED CREDIT SYSTEM (CBCS)

[Effective from the Session: 2018-19]

Director

EVALUATION SCHEME

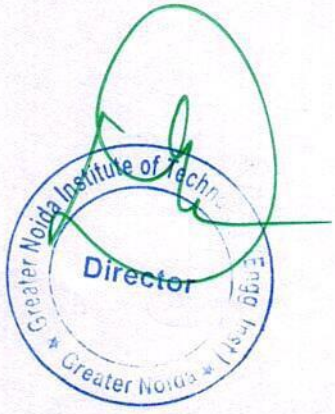
B-TECH. ELECTRICAL ENGINEERING
B-TECH. ELECTRICAL & ELECTRONICS ENGINEERING

YEAR 3rd / SEMESTER-V

S. No.	Subject Code	Subject Name	Department	L-T-P	Th./Lab Marks	Sessional		Total	Credit
					ESE	CT	TA		
1	RAS501	MANAGERIAL ECONOMICS	Applied Science	3--0--0	70	20	10	100	3
2	RAS502/ RUC501	SOCIOLOGY /CYBER SECURITY	Applied Science	3--0--0	70	20	10	100	3
3	REE501	ELECTRICAL MACHINES -II	Core Deptt.	3--0--0	70	20	10	100	3
4	REE502	POWER TRANSMISSION & DISTIBUTION	Core Deptt.	3--1--0	70	20	10	100	4
5	REE503	CONTROL SYSTEM	Core Deptt.	3--0--0	70	20	10	100	3
6	REE051 -054	DEPTT ELECTIVE COURSE-1	Core Deptt.	3--1--0	70	20	10	100	4
7	REE551	ELECTRICAL MACHINES –II LAB	Core Deptt.	0--0--2	50		50	100	1
8	REE553	CONTROL SYSTEM LAB	Core Deptt.	0--0--2	50		50	100	1
9	REE554	SOFTWARE BASED POWER SYSTEM LAB	Core Deptt.	0--0--2	50		50	100	1
10	REE555	SEMINAR – I		0--0--2			100	100	1
	TOTAL				620	120	260	1000	24

DEPTT. ELECTIVE COURSE-1

1. REE051:Power System Optimization
2. REE052: Principles of Communication
3. REE053:Fundamentals of Digital Signal Processing
4. REE054: Internet of Things



EVALUATION SCHEME

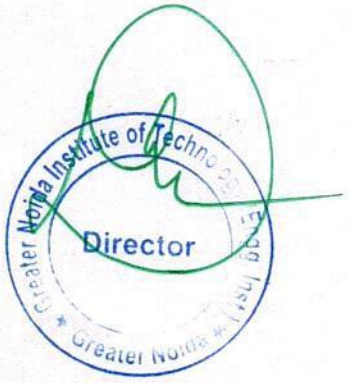
B-TECH. ELECTRICAL ENGINEERING
B-TECH. ELECTRICAL & ELECTRONICS ENGINEERING

YEAR 3rd / SEMESTER-VI

S. No.	Subject Code	Subject Name	Department	L-T-P	Th/Lab Marks	Sessional		Total	Credit
					ESE	CT	TA		
1	RAS601	INDUSTRIAL MANAGEMENT	Applied Science	3--0--0	70	20	10	100	3
2	RAS602 / RUC601	SOCIOLOGY /CYBER SECURITY	Applied Science	3--0--0	70	20	10	100	3
3	REE601	POWER ELECTRONICS	Core Deptt.	3--0--0	70	20	10	100	3
4	REE602	MICROPROCESSOR	Core Deptt.	3--1--0	70	20	10	100	4
5	REE603	POWER SYSTEM ANALYSIS	Core Deptt.	3--0--0	70	20	10	100	3
6	REE061 -064	DEPTT ELECTIVE COURSE-2	Core Deptt.	3--1--0	70	20	10	100	4
7	REE661	POWER ELECTRONICS LAB	Core Deptt.	0--0--2	50		50	100	1
8	REE662	MICROPROCESSOR LAB	Core Deptt.	0--0--2	50		50	100	1
9	REE664	ELECTRICAL DESIGN & FABRICATION LAB	Core Deptt.	0--0--2	50		50	100	1
10	REE665	SEMINAR – II		0--0--2			100	100	1
	TOTAL				620	120	260	1000	24

DEPTT. ELECTIVE COURSE-2

1. REE061 - Intelligent Sensors & Instrumentation
2. REE062 - Bio-medical Instrumentation
3. REE063 - High Voltage Engineering
4. REE064 - Special Electrical Machines



Session : 2018-19

STUDY AND EVELUATION SCHEME OF ELECTRICAL ENGINEERING
VIIth Semester

S. NO.	SUBJECT CODE	NAME OF THE SUBJECT	PERIODS			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL ASSESMENT			ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECT											
1	NEE-701	ELECTRIC DRIVES	3	1	0	30	20	50	100	150	4
2	NEE-702	POWER STATION PRACTICE	3	1	0	30	20	50	100	150	4
3	NEC-702A	ANALOG & DIGITAL COMMUNICATION	3	1	0	30	20	50	100	150	4
4	NEE-031-033, NCS-039	DEPARTMENTAL ELECTIVE-III	3	1	0	30	20	50	100	150	4
5	NOE-071-NOE-074	OPEN ELECTIVE-1	3	1	0	30	20	50	100	150	4
PRACTICAL/DESIGN/DRAWING											
6	NEE-751	ELECTRIC DRIVE LAB	0	0	3	10	10	20	30	50	1
7	NEC-752B	ADC LAB	0	0	3	10	10	20	30	50	1
8	NEE-753	INDUSTRIAL TRAINING	0	0	2	30	20	50	--	50	1
9	NEE-754	PROJECT	0	0	2	30	20	50	--	50	1
10	NGP-701	GP					50	50	--	50	1
		TOTAL	16	5	10					1000	24

LIST OF DEPARTMENTAL ELECTIVE-III

NEE-031 POWER SYSTEM OPERATION AND CONTROL
NEE-032 ADVANCED MICROPROCESSORS AND MICROCONTROLLERS
NEE-033 FLEXIBLE AC TRANSMISSION SYSTEMS
NCS-039 OBJECT ORIENTED SYSTEMS AND C++

LIST OF OPEN ELECTIVE-I

NOE-071 ENTREPRENEURSHIP DEVELOPMENT
NOE-072 QUALITY MANAGEMENT
NOE-073 OPERATION RESEARCH
NOE-074 INTRODUCTION TO BIO TECHNOLOGY

STUDY AND EVELUATION SCHEME OF ELECTRICAL ENGINEERING
VIII[th] Semester

S. NO.	SUBJECT CODE	NAME OF THE SUBJECT	PERIODS			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL ASSESMENT			ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECT											
1	NEE-801	ELECTRICAL & ELECTRONICS ENGINEERING MATERIALS	3	1	0	30	20	50	100	150	4
2	NEE-802	UTILIZATION OF ELECTRICAL ENERGY AND TRACTION	3	1	0	30	20	50	100	150	3
3	NEE-041 - NEE-044	DEPARTMENTAL ELECTIVE-IV	3	1	0	30	20	50	100	150	4
4	NOE-081 - NOE-084	OPEN ELECTIVE-2	3	1	0	30	20	50	100	150	4
PRACTICAL/DESIGN/DRAWING											
5	NEE-851	PROJECT	0	0	12	0	100	100	250	350	8
6	NGP-801	GP					50	50	-	50	1
		TOTAL	14	5	12		180	350	650	1000	24

LIST OF DEPARTMENTAL ELECTIVE IV

NEE-041 EHVAC&DC TRANSMISSION
NEE-042 POWER QUALITY
NEE-043 EMBEDDED SYSTEM
NEE-044 SCADA

LIST OF OPEN ELECTIVE 2

NOE-081 NON-CONVENTIONAL ENERGY RESOURCES
NOE-082 NON LINEAR DYNAMIC SYSTEMS
NOE-083 DATA BASE MANAGEMENT SYSTEM AND DATA MINING AND WAREHOUSING
NOE-084 AUTOMATION & ROBOTICS

Evaluation Scheme 2018-19

2nd Year (ODD)

S. No.	Subject Code	Subject Name	L-T-P	Th/Lab ESE	Sessional		Total	Credit
					CT	TA		
1.	RAS301/ ROE031 to 036, 038, 039	Mathematics-III/ Science Based OE	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics / Environment & Ecology	3-0-0	70	20	10	100	3
3.	RCE303	Fluid Mechanics	3-0-0	70	20	10	100	3
4.	RME301	Material Science	3-0-0	70	20	10	100	3
5.	RME302	Thermodynamics	3-1-0	70	20	10	100	4
6.	RME303	Mechanics of Solids	3-0-0	70	20	10	100	3
7.	RCE353	Fluid Mechanics Lab	0-0-2	50	30	20	100	1
8.	RME351	Material Science & Testing Lab	0-0-2	50	30	20	100	1
9.	RME352	Thermodynamics Lab	0-0-2	50	30	20	100	1
10.	RME353	Computer Aided Machine Drawing-I Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
TOTAL							1000	24

2nd Year (EVEN)

S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE041 to 046, 048, 049/ RAS401	Science Based OE/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	REE409	Electrical Machines & Controls	3-0-0	70	20	10	100	3
4.	RME401	Measurement and Metrology	3-0-0	70	20	10	100	3
5.	RME402	Manufacturing Science & Technology-I	3-0-0	70	20	10	100	3
6.	RME403	Applied Thermodynamics	3-1-0	70	20	10	100	4
7.	REE459	Electrical Machines and Controls Lab	0-0-2	50	30	20	100	1
8.	RME451	Measurement and Metrology Lab	0-0-2	50	30	20	100	1
9.	RME452	Manufacturing Science & Technology–I Lab	0-0-2	50	30	20	100	1
10.	RME453	Computer Aided Machine Drawing-II Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
TOTAL							1000	24

Director

HoD/ME

Dr. A.P.J. Abdul Kalam Technical UniversityUttar Pradesh,Lucknow

Syllabus

for

B. Tech. Mechanical Engineering

Third Year

(Effective from the Session: 2018-19)

3rd Year (ODD)

S. No.	Subject Code	Subject Name	Department	L-T-P	Theory / Lab Marks	SESSIONAL		Total	Credit
						Test	Assignment / Attendance		
1	RAS501	Managerial Economics	Applied Science	3--0--0	70	20	10	100	3
2	RAS502/ RUC501	Sociology /Cyber Security	Applied Science	3--0--0	70	20	10	100	3
3	RME501	Machine Design-I	Core Deptt.	3--0--0	70	20	10	100	3
4	RME502	Heat & Mass Transfer	Core Deptt.	3--1--0	70	20	10	100	4
5	RME503	Manufacturing Science& Technology-II	Core Deptt.	3--0--0	70	20	10	100	3
6	RME051-054	Deptt. Elective Course-1	Core Deptt.	3--1--0	70	20	10	100	4
7	RME551	Design and Simulation Lab I	Core Deptt.	0--0--2	50		50	100	1
8	RME552	Heat & Mass Transfer Lab	Core Deptt.	0--0--2	50		50	100	1
9	RME553	Manufacturing Technology-II Lab	Core Deptt.	0--0--2	50		50	100	1
10	RME559	Seminar – I		0--0--2	50		50	100	1
TOTAL								1000	24

3rd Year (EVEN)

S. No.	Subject Code	Subject Name	Department	L-T-P	Theory / Lab Marks	SESSIONAL		Total	Credit
						Test	Assignment / Attendance		
1	RAS601	Industrial Management	Applied Science	3--0--0	70	20	10	100	3
2	RUC601/ RAS602	Cyber Security/ Sociology	Applied Science	3--0--0	70	20	10	100	3
3	RME601	Fluid Machinery	Core Deptt.	3--0--0	70	20	10	100	3
4	RME602	Theory of Machines	Core Deptt.	3--1--0	70	20	10	100	4
5	RME603	Machine Design-II	Core Deptt.	3--0--0	70	20	10	100	3
6	RME061-064	Deptt. Elective Course-2	Core Deptt.	3--1--0	70	20	10	100	4
7	RME651	Fluid Machinery Lab	Core Deptt.	0--0--2	50		50	100	1
8	RME652	Theory of Machines Lab	Core Deptt.	0--0--2	50		50	100	1
9	RME653	Design and Simulation Lab II	Core Deptt.	0--0--2	50		50	100	1
10	RME654	Refrigeration & Air-conditioning	Core Deptt.	0--0--2	50		50	100	1
TOTAL								1000	24

Director
Greater Noida Institute of Technology (Engg. Inst.) Greater Noida

HoD-ME
Greater Noida Institute of Technology (Engg. Inst.)

4th Year (ODD)

S. No.	Subject Code	Name of the Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Assessment			ESE		
						CT	TA	Total			
THEORY SUBJECT											
1	NOE-071 to 074	Open Elective -I (OR - NOE-073)	3	1	0	30	20	50	100	150	4
2	NME-701	CAD	3	1	0	30	20	50	100	150	4
3	NME-702	Automobile Engineering	3	1	0	30	20	50	100	150	4
4	NME-031 to NME-034	Departmental Elective – III CIM - (NME-031)	3	1	0	30	20	50	100	150	4
5	NME-041 to NME-044	Departmental Elective – IV TQM - (NME-041)	3	1	0	30	20	50	100	150	4
PRACTICAL/DESIGN/DRAWING											
5	NME-751	CAD/CAM Lab	0	0	2	10	10	20	30	50	1
6	NME-752	I. C. Engine and Automobile Lab.	0	0	2	10	10	20	30	50	1
7	NME-753	INDUSTRIAL TRG.	0	0	2	-	50	50	-	50	1
8	NME-754	PROJECT	0	0	3	-	50	50	-	50	2
	GP-701	GP	-	-	-	-	-	50	-	50	-
		TOTAL	15	5	9					1000	25

4th Year (EVEN)

S. No.	Subject Code	Name of the Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Assessment			ESE		
						CT	TA	Total			
THEORY SUBJECT											
1	NOE-081 to 084	Open Elective -II (NCER)	3	1	0	30	20	50	100	150	4
2	NPI-801	Quality Control	3	1	0	30	20	50	100	150	4
3	NME-051 to NME-055	Departmental Elective –V (AWT - NME-055)	3	1	0	30	20	50	100	150	4
4	NME-061 to NME-065	Departmental Elective -VI (NDT - NME-065)	3	1	0	30	20	50	100	150	4
PRACTICAL/DESIGN/DRAWING											
5	NME-851	SEMINAR	0	0	3	-	50	50	-	50	2
6	NME-852	PROJECT	0	0	12	-	100	100	200	300	7
7	GP-801	GP	-	-	-	-	-	50	-	50	-
		TOTAL	12	4	15					1000	25

Director

HoD-ME

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY

LUCKNOW

Study & Evaluation Scheme with Syllabus

for

B.Tech. Second Year

Civil Engineering

On

Choice Based Credit System

(Effective from the Session: 2017-18)

2nd Year III-SEMESTER

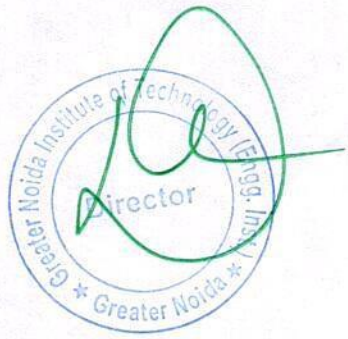
S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	ROE030 to 039/ RAS301	Science Based Open Elective/ Mathematics-III	3-1-0	70	20	10	100	4
2.	RVE301/ RAS302	Universal Human Values & Professional Ethics/ Environment & Ecology	3-0-0	70	20	10	100	3
3.	RME303	Mechanics of Solids	3-0-0	70	20	10	100	3
4.	RCE301	Building Materials & Construction	3-1-0	70	20	10	100	4
5.	RCE302	Surveying	3-0-0	70	20	10	100	3
6.	RCE303	Fluid Mechanics	3-0-0	70	20	10	100	3
7.	RCE351	Building Materials Lab	0-0-2	50	30	20	100	1
8.	RCE352	Surveying Lab	0-0-2	50	30	20	100	1
9.	RCE353	Fluid Mechanics Lab	0-0-2	50	30	20	100	1
10.	RCE354	Computer Based Statistical & Numerical Techniques Lab	0-0-2	50	30	20	100	1
11.	RME101*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE151*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Science Based Open Electives:

a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra



2nd Year IV-SEMESTER

S. No.	Subject Code	Subject Name	L-T-P	ESE Marks	Sessional		Total	Credit
					CT	TA		
1.	RAS401/ ROE040 to 049	Mathematics-III/ Science Based Open Elective	3-1-0	70	20	10	100	4
2.	RAS402/ RVE401	Environment & Ecology/ Universal Human Values & Professional Ethics	3-0-0	70	20	10	100	3
3.	RCS405	Data Structures	3-0-0	70	20	10	100	3
4.	RCE401	Hydraulics & Hydraulic Machines	3-0-0	70	20	10	100	3
5.	RCE402	Geoinformatics	3-0-0	70	20	10	100	3
6.	RCE403	Structural Analysis	3-1-0	70	20	10	100	4
7.	RCE452	Geoinformatics Lab	0-0-2	50	30	20	100	1
8.	RCE453	Structural Analysis Lab	0-0-2	50	30	20	100	1
9.	RCE454	Building Planning & Drawing Lab	0-0-2	50	30	20	100	1
10.	RCE455	Hydraulics & Machine Lab	0-0-2	50	30	20	100	1
11.	RME201*	Elements of Mechanical Engineering*	3-1-0	70	20	10	100*	--
12.	RCE251*	Computer Aided Engineering Graphics*	0-0-3	50	30	20	100*	--
Total							1000	24

CT: Class Test **TA**: Teacher Assessment **L/T/P**: Lecture/ Tutorial/ Practical

***B.Tech. IInd year lateral entry students belonging to B.Sc. Stream, shall clear the subjects RCE151/RCE251 and RME101/201 of the first year Engineering Programme along with the second year subjects.**

Industrial Training:
Students will go for Industrial Training of 8-10 weeks in total in two parts (Industrial Training-1 & Industrial Training-2) which is to be evaluated in VII semester after submission of separate training report for each part.
Industrial Training-1: Students will go to Industrial Training-1 of 4 weeks after IV semester which will be evaluated in VII semester.

Science Based Open Electives:
a. ROE030/ROE040 Manufacturing Process
b. ROE031/ROE041 Introduction to soft computing
c. ROE032/ROE042 Nano Science
d. ROE033/ROE043 Laser System and Application
e. ROE034/ROE044 Space Science
f. ROE035/ROE045 Polymer Science & Technology
g. ROE036/ROE046 Nuclear Science
h. ROE037/ROE047 Material Science
i. ROE038/ROE048 Discrete Mathematics
j. ROE039/ROE049 Applied Linear Algebra

DR. A.P.J ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

EVALUATION SCHEME & SYLLABUS

FOR

B. TECH. THIRD YEAR

(CIVIL ENGINEERING)

On

Choice Based Credit System

[Effective from session 2018-19]

Director

FIFTH SEMESTER

Sl No.	Subject Code	Subject Name	Teaching Deptt.	L-T-P	Th/Lab Marks	Sessional		Total	Credit
					ESE	CT	TA.		
1	RAS501	MANEGIRIAL ECONOMICS	Applied Science	3—0---0	70	20	10	100	3
2	RAS-502/ RUC501	SOCIOLOGY /CYBER SECURITY	Applied Science	3—0---0	70	20	10	100	3
3	RCE501	GEOTECHNICAL ENGINEERING	Core Deptt.	3—0---0	70	20	10	100	3
4	RCE502	DESIGN OF STRUCTURE-I	Core Deptt.	3—1---0	70	20	10	100	4
5	RCE503	QUANTITY ESTIMATION AND MANAGEMENT	Core Deptt.	3—0---0	70	20	10	100	3
	RCE051 RCE052 RCE053	**ELECTIVE -1** MODERN CONSTRUCTION MATERIALS CONCRETE TECHNOLOGY GEOENVIRONMENTAL	Core Deptt.	3—1--0	70	20	10	100	4

		ENGINEERING							
7	RCE551	GEOTECHNICAL ENGINEERING LAB	Core Deptt.	0—0---2	50		50	100	1
8	RCE552	CAD LAB-1	Core Deptt.	0—0---2	50		50	100	1
9	RCE553	CONSTRUCTION MANAGEMENT LAB	Core Deptt.	0—0---2	50		50	100	1
10	RCE554	CONCRETE LAB	Core Deptt.	0—0---2	50		50	100	1
	TOTAL				620	120	260	**1000**	**24**

SESSION 2018-19

Greater Noida Institute of Technology (Engg. Inst.) Director * Greater Noida *

Dr. A.P. J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

Syllabus

4th Year

[Effective from session 2016-17]

B. Tech. Civil Engineering

Dr. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

Study & Evaluation Scheme

B Tech Civil Engineering

Effective from session 2016-17

Final Year, VII Semester

S No	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Exam			ESE		
						CT	TA	Total			
THEORY SUBJECT											
1	NOE071-NOE074	Open Elective – I	3	1	0	30	20	50	100	150	4
2	NCE031-NCE035	Department Elective-III	3	1	0	30	20	50	100	150	4
3	NCE041-NCE044	Department Elective-IV	3	1	0	30	20	50	100	150	4
4	NCE701	Design of Steel Structures	3	1	0	30	20	50	100	150	4
5	NCE702	Water Resources Engg	3	1	0	30	20	50	100	150	4
PRACTICAL / DESIGN / DRAWING											
6	NCE751	Seminar	0	0	4		-	50	-	50	1
7	NCE752	Industrial Training**					-	50	-	50	1
8	NCE753	Project#	0	0	4		-	100	-	100	3
9	NGP 701	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	15	5	8					1000	26

** 4 weeks Industrial Training after VI semester to be evaluated in VII semester.

Project should be initiated in VII semester beginning and should be completed by the end of VIII semester.

Departmental Elective-3 (Full Unit Course with Credit: 4)

S. No.	Code and Course
2 (A)	NCE 031 - Bridge Engineering
2 (B)	NCE 032 - Finite Element Methods
2(C)	NCE 033 - Environmental Geo-technology
2(D)	NCE 034 - Industrial Pollution Control & Env. Audit
2 (E)	NCE 035 – Engineering Hydrology

Departmental Elective-4 (Full Unit Course with Credit: 4)

S. No.	Code and Course
3 (A)	NCE 041 - Precast and Modular Construction Practices
3 (B)	NCE 042 - Plastic Analysis of Structures
3 (C)	NCE 043 - Open Channel Flow
3 (D)	NCE 044 – Tunnel Engineering

Dr. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

Study & Evaluation Scheme

B Tech Civil Engineering

Effective from session 2016-17

Final Year, VIII Semester

S No	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Exam			ESE		
						CT	TA	Total			
THEORY	SUBJECT										
1	NOE081-NOE084	Open Elective – II	3	1	0	30	20	50	100	150	4
2	NCE051-NCE054	Departmental Elective-V	3	1	0	30	20	50	100	150	4
3	NCE061-NCE064	Departmental Elective-VI	3	1	0	30	20	50	100	150	4
4	NCE801	Transportation Engineering -II	3	1	0	30	20	50	100	150	3
PRACTICAL / DESIGN / DRAWING											
5	NCE851	Project	0	0	12		100	100	250	350	8
6	NGP 801	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	12	4	12					1000	24

Departmental Elective-5 (Full Unit Course with Credit: 4)

S. No.	Code and Course
2 (A)	NCE 051 - Computer Aided Design
2 (B)	NCE 052 - Analysis and Design of Hydraulic Structures
2 (C)	NCE 053 - Water Resources Systems
2 (D)	NCE 054 - Machine Foundation Design

Departmental Elective-6 (Full Unit Course with Credit: 4)

S. No.	Code and Course
3 (A)	NCE061 - Ground Improvement Techniques
3 (B)	NCE 062 - River Engineering
3 (C)	NCE 063 – Groundwater Management
3 (D)	NCE 064 - Earthquake Resistant Design of Structures

18-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW

Evaluation Scheme & Syllabus

for

MCA First Year

On

Choice Based Credit System

(Effective from the Session: 2016-17)

Year – I Semester - II

Sl. No.	Subject Code	Subject Name	Periods			Evaluation Scheme					Credit
			L	T	P	Session Exams			ESE	Subject Total	
						CT	TA	Total			
1	RCA201	Computer Based Numerical & Statistical Techniques	3	1	0	20	10	30	70	100	04
2	RCA202	Data Structures	3	1	0	20	10	30	70	100	04
3	RCA203	Introduction to Automata Theory & Languages	3	1	0	20	10	30	70	100	04
4	RCA204	Innovation & Entrepreneurship	3	1	0	20	10	30	70	100	04
5	RHU001	Human Values & Professional Ethics	3	0	0	20	10	30	70	100	03
Practical											
6	RCA251	Computer Based Numerical & Statistical Techniques Lab	0	0	3	30	20	50	50	100	02
7	RCA252	Data Structure Lab	0	0	6	30	20	50	50	100	03
		Total	14	4	6					700	24

Dr. APJ Abdul Kalam Technical University, Lucknow

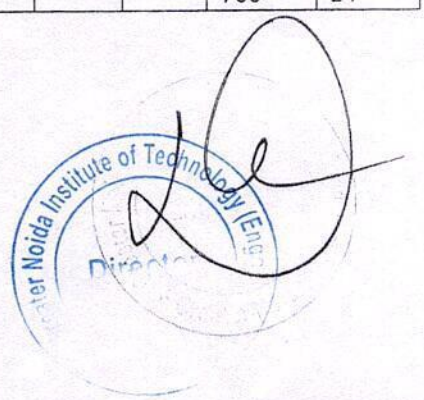
Study and Evaluation Scheme

MCA (Master of Computer Applications)

(Effective From Session 2016-17)

Year – I Semester - I

Sl. No.	Subject Code	Subject Name	Periods			Evaluation Scheme					Credit
			L	T	P	Session Exams			ESE	Subject Total	
						CT	TA	Total			
1	RCA105	Professional Communication	3	1	0	20	10	30	70	100	04
2	RCA101	Computer Concepts & Principals of Programming	3	1	0	20	10	30	70	100	04
3	RCA102	Accounting & Financial Management	3	1	0	20	10	30	70	100	04
4	RCA103	Discrete Mathematics	3	1	0	20	10	30	70	100	04
5	RCA104	Computer Organization & Architecture	3	1	0	20	10	30	70	100	04
Practical											
6	RCA151	Professional Communication Lab	0	0	3	30	20	50	50	100	02
7	RCA152	Programming Lab	0	0	3	30	20	50	50	100	02
		Total	15	4	5					700	24



Session 2018-19

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

Evaluation Scheme & Syllabus for

MBA

AS PER
AICTE MODEL CURRICULUM

(Effective from the Session: 2018-19)

MBA 1st Year Course Structure in accordance with AICTE Model Curriculum
Effective w.e.f. Academic Session 2018
SEMESTER - I

S. No	CODE	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	KMB 101	MANAGEMENT CONCEPT & INDIAN ETHOS	4	0	0	30	20	50	0	100	0	150	3
2	KMB102	MANAGERIAL ECONOMICS	4	0	0	30	20	50	0	100	0	150	3
3	KMB103	FINANCIAL ACCOUNTING FOR MANAGERS	4	0	0	30	20	50	0	100	0	150	3
4	KMB104	BUSINESS STATISTICS AND ANALYSIS	4	0	0	30	20	50	0	100	0	150	3
5	KMB105	ORGANISATIONAL BEHAVIOUR	4	0	0	30	20	50	0	100	0	150	3
6	KMB106	MARKETING MANAGEMENT - I	4	0	0	30	20	50	0	100	0	150	3
7	KMB107	BUSINESS COMMUNICATION	4	0	0	30	20	50	0	100	0	150	3
8	KMB108	COMPUTER APPLICATION IN MANAGEMENT	3	0	1	30	20	50	0	100	0	150	3
9	NON CREDIT	DEVELOPING SOFT SKILLS & PERSONALITY	2	0	0							0	0
		TOTAL										**1200**	**24**

SEMESTER - II

S. No	CODE	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CRED
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	KMB 201	BUSINESS ENVIRONMENT	4	0	0	30	20	50	0	100	0	150	
2	KMB202	HUMAN RESOURCE MANAGEMENT	4	0	0	30	20	50	0	100	0	150	
3	KMB203	BUSINESS RESEARCH METHODS	4	0	0	30	20	50	0	100	0	150	
4	KMB204	FINANCIAL MANAGEMENT & CORPORATE FINANCE	4	0	0	30	20	50	0	100	0	150	
5	KMB205	OPERATIONS MANAGEMENT	4	0	0	30	20	50	0	100	0	150	
6	KMB206	QUANTITATIVE TECHNIQUES FOR MANAGERS	4	0	0	30	20	50	0	100	0	150	
7	KMB207	LEGAL ASPECTS OF BUSINESS	4	0	0	30	20	50	0	100	0	150	
8	KMB208	MARKETING MANAGEMENT – II	4	0	0	30	20	50	0	100	0	150	
9	KMB209	COMPREHENSIVE VIVA	0	0	0					100	0	100	
10	NON CREDIT	DEVELOPING SOFT SKILLS & PERSONALITY	2	0	0							0	
		TOTAL										1300	2

Director
Greater Noida Institute of Technology (Engg. Inst.)
Greater Noida

Session 2018-19

Evaluation Scheme & Syllabus for

MBA Second Year

On

Choice Based Credit System

(Effective from the Session: 2017-18)

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW

MBA Evaluation Scheme for Session 2017 - 2018
Semester III

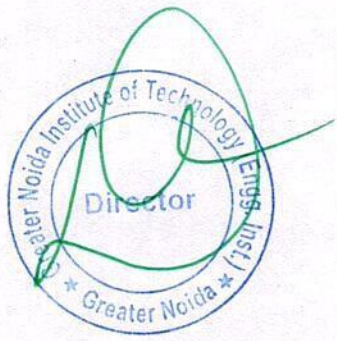
S. No.	Subject Code	Subject Title	Periods			Evaluation Scheme					Credit
						Sessional			ESE	Total	
			L	T	P	CT	TA	Total			
1	RMB301	Strategic Management	3	0	0	20	10	30	70	100	3
2	RMB302	International Business Management	3	0	0	20	10	30	70	100	3
3		Major Specialization Group Elective 1	3	0	0	20	10	30	70	100	3
4		Major Specialization Group Elective 2	3	0	0	20	10	30	70	100	3
5		Major Specialization Group Elective 3	3	0	0	20	10	30	70	100	3
6		Minor Specialization Group Elective 1	3	0	0	20	10	30	70	100	3
7		Minor Specialization Group Elective 2	3	0	0	20	10	30	70	100	3
8	RVE301	Universal Human Values and Professional Ethics	3	0	0	20	10	30	70	100	3
9	RMB351	Summer Training Project Report & Viva Voce	0	0	6		30	30	70	100	3
TOTAL										**900**	**27**

ESE- End Semester Examination
CA - Class Test
TA - Teacher Assessment

Semester IV

S. No.	Subject Code	Course Title	Periods			Evaluation Scheme					Credit
						Sessional			ESE	Total	
			L	T	P	CT	TA	Total			
1	RMB401	Corporate Governance : Values and Ethics	4	0	0	20	10	30	70	100	4
2	RMB402	Entrepreneurship Development	4	0	0	20	10	30	70	100	4
3		Major Specialization Group Elective 4	3	0	0	20	10	30	70	100	3
4		Major Specialization Group Elective 5	3	0	0	20	10	30	70	100	3
5		Minor Specialization Group Elective 3	3	0	0	20	10	30	70	100	3
6	RCA405	Cyber Security	3	0	0	20	10	30	70	100	3
7	RMB 451	Research Project Report and Viva Voce	0	0	12		60	60	140	200	7
TOTAL										**800**	**27**

ESE- End Semester Examination
CA - Class Test
TA - Teacher Assessment



Analysis of structures: Truss elements, Analysis of truss problems by direct stiffness method. Analysis of frames and different problems, Different axi-symmetric truss problems. 6

Text Book:

1. The Finite Element method -ZIENKIEWICZ.O.C.Tata McGraw Hill Pub. New Delhi, 2000
2. Finite Element Methods by C R Alaval , PHI
3. Finite Elements in Engineering:- Chandrupatta, et. Al. Prentice Hall of India Pvt. Ltd.,
4. Finite element method with application in engineering by Chandrupatla & Belegundu, Pearson Publication.
5. Finite Element Method Basics concept & Applications by Alawala
6. Fundamental of Finite element Analysis by Devid V. hutton
7. Finite element Methods is fundamentals an application in engineering by Chen Z

Reference Books:

1. Concepts and Applications of Finite Element Analysis: COOK. D. Robert. Malus.S.David, Plesha E. Michel, John wilely & sons 3rd Edn. New York, 2000
2. Finite Element Analysis -C.S. Krishnanmoorthy, Tata McGraw Hill Publishing Co. Ltd, New Delhi,
3. Introduction to the Finite Element method -Desai / ABEL-C.B.S. Publishers & Distributors, New

NCE 033 Environmental Geotechnology

L T P
3 1 0

Unit -1

Introduction, Development of Environmental Geotechnology, Aims, Environmental Cycle and their interaction with geotechnology, Natural environment, cycles of nature, environmental geotechnical problems. 8

Unit -2

Identification and characteristics of contaminated soil, classification, Characteristics of dust, dust in environment, ion-exchange reaction and ion exchange capacity, ion exchange reaction in contaminated soil-water system, Site Investigation for detection of sub-surface contamination 8

Unit -3

Load-environment factor design criteria, soil-structure vs structure soil interaction, load and environmental loads, Bearing capacity based on load footing interaction, lateral earth pressure, pile foundations, environmental factors affecting pile capacity, under-water foundation problems. 8

Unit – 4

Ash Pond and Mine Tailing Impoundments, Geotechnical re-use of waste materials and fills, Grouting and injection process, Grout used for controlling hazardous wastes, Sinkhole: interaction with environment , remedial action 8

Unit -5

Sanitary landfills: Selection of waste disposal sites, Landfills for Municipal and Hazardous wastes, Design of liners: clay and synthetic clay liners, Bearing capacity of foundation on sanitary landfills. 8

Recommended Books:

1. Fang, H. – Introduction to Environmental Geotechnology.
2. Sharma, H. D. and Sangeeta, P.L. - waste containment systems, waste stabilization and landfills: design and evaluation.
3. Koerner, R. M. - Designing with geosynthetics
4. Environmental & Geotechniques by Robert W. Sarsby
5. Geostatics for Environmental & geotechnical Publication Shahrukh Rouhany

NCE – 034 Industrial Pollution Control and Environmental Audit

L T P
3 1 0

Unit-1

Industrial wastes & their sources: various industrial processes, sources and types of wastes-solid, liquid, gaseous, noise & radiation emissions. Sources for industrial water usages and various industrial

processes requiring water use and water quality. 8

Unit-2

Processes responsible for deterioration in water quality, Various waste water streams, Control and removal of specific pollutants in industrial wastewaters, e.g., oil and grease, bio-degradable organics, chemicals such as cyanide, fluoride, toxic organics, heavy metals, radioactivity etc. Wastewater re-uses & recycling, concept of zero discharge effluent. 8

Unit-3

Control of gaseous emissions: hood and ducts, tall stacks, particulate and gaseous pollutant control; Solid waste generation and disposal management; Hazardous wastes: definitions, concepts and management aspects; Noise & radiation: generation, control and management. 8

Unit-4

Recent trends in industrial waste management, cradle to grave concept, life cycle analysis, clean technologies; Case studies of various industries, e.g., dairy, fertilizer, distillery, sugar, pulp and paper, iron and steel, metal plating, thermal power plants, etc. 8

Unit-5

Environmental audit: definitions and concepts, environmental audit versus accounts audit, compliance audit, relevant methodologies, various pollution regulations, Introduction to ISO and ISO 14000. 8

Recommended References:

1. *Industrial Wastewater Management Handbook*, Azad, Hardom Singh, Editor-in-Chief, McGraw Hill, New York.
2. *Wastewater Reuse and Recycling Technology-Pollution Technology Review-72*, Culp, Gordan, George Wasner, Robert Williams and Mark , V.Hughes Jr., Noyes Data Corporation, New Jersey.
3. *The Treatment of Industrial wastes.* Edmund, B. Besselieve P.E., McGraw Hill, New York.
4. *Industrial Pollution Control –Issues and Techniques*. Nancy, J. Sell, Van Nostrand Reinhold Co, NY.
5. *Wastewater Engineering: Treatment & Re-use.* Metcalf & Eddy, Tata Mc Graw-Hill.
6. *Industrial Pollution Prevention Handbook.* Shen, T.T., Springer-Verlag, Berlin.
7. *Environmental Engineering.* Pandey, G.N. and Corney, G.C., Tata McGraw Hill, New Delhi
8. *Environment (protection) Act- 1986.* Any authorized & recent publication on Government Acts.
9. Industrial Pollution Control and Environmental Audit by Sanjay Gupta

NCE-035 : Engineering Hydrology

L T P
3 1 0

Unit-1

Introduction: hydrologic cycle, water budget equations, world water balance, Precipitation: Forms of precipitation, measurement, depth-area-duration & intensity- duration- frequency relationships, probable maximum precipitation. 8

Unit-2

Abstraction from Precipitation: Evaporation – process, measurement and estimation; Evapo-transpiration-measurement and estimation; Initial Losses- Interception & Depression storage; Infiltration- process, capacities indices, measurement & estimation 8

Unit-3

Runoff and Hydrographs : Hydrograph, runoff characteristics of stream, Yield, Rainfall-runoff correlations, flow duration curve, mass curve, droughts and floods. Factors affecting flood hydrographs, unit hydrograph and its analysis, s-curve hydrograph, synthetic and instantaneous unit hydrographs. 8

Unit-4

Flood: Rational method, empirical formulae, unit hydrograph method, flood frequency studies, statistical analysis, regional flood frequency analysis, design storm & design flood, risk/reliability and safety factor; Flood Routing: Basic equation, hydrologic storage routing & attenuation, hydrologic channel routing, flood forecasting & control, hydraulic method of flood routing. 8

Unit-5

4. Principles of River Engineering by (the non tidel alluvial) PH Jameen

NCE-063: Groundwater Management

L T P
3 1 0

Unit-1

Introduction, hydrological cycle & definitions, Occurrence of ground water, hydro-geology & aquifers, Ground water movement, Darcy's law, flow-nets in isotropic medium. 8

Unit-2

Steady and unsteady flow through confined and unconfined aquifers, Dupuits theory, Observation wells, Well Hydraulics: Single& Multiple well system, partially penetrating wells, Image wells, Mutual interference of wells, well losses, specific capacity, Inverse problem i.e. pumping tests for aquifer parameters, 8

Unit-3

Water Wells: Design of water wells, Well construction, Well completion, Development of wells Pumping equipment for water wells, maintenance of wells, ground water irrigation. 8

Unit-4

Ground Water quality, Contamination of groundwater and its Control, Ground Water Modeling Techniques, Ground water exploration, Surface and Subsurface Investigations of Ground water, Artificial discharge and Recharge of Ground Water, Groundwater drainage, 8

Unit-5

Ground Water Management Techniques: Groundwater budgeting, groundwater modeling & stimulation, application of GIS and remote sensing in groundwater management. roof-top rainwater harvesting and recharge. 8

Recommended References:

- *'Groundwater Hydrology' by Todd D. K.*
- *'Groundwater Resource Evaluation' by Walton W. C.*
- *'Groundwater' by Raghunath H. M.*
- *'Handbook of Applied Hydrology' by Chow V. T.*
- *'Irrigation: Theory & Practice' by Michael A. M.*
- *'Groundwater' by S.Ramakrishnan*

NCE – 064 EARTHQUAKE RESISTANT DESIGN

L T P
3 1 0

Unit – 1

Internal structure of earth, Causes of earthquakes, Seismic waves, Magnitude, Intensity and Energy released, Characteristics of Earthquakes, 8

Unit - 2

Response of Structure to Earthquake motion, Modeling of structures, Dynamics of single degree of freedom system, 8

Unit -3

Dynamics of multi degree of freedom system, Idealization of structures, seismic response, 8

Unit – 4

Introduction to earthquake resistant design, Equivalent lateral force method, Response spectrum method, Time history method, Introduction to earthquake resistant brick and masonry buildings. 8

Unit – 5

Reinforced Concrete framed buildings, Code provisions. Introduction to machine foundation & its design. Degrees of freedom of a block foundation. 8

References:

1. Introduction to Structural Dynamics - J.M. Biggs

A Foundation course
In
Universal Human Values and Professional Ethics

Universal Human Values and Professional Ethics **[L-T-P: 3-0-0]**

Course Objectives

This introductory course input is intended

1. To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity, which are the core aspirations of all human beings

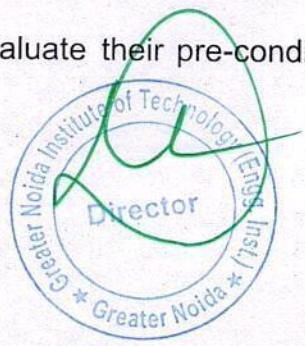
2. To facilitate the development of a Holistic perspective among students towards life and profession as well as towards happiness and prosperity based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Universal Human Values and movement towards value-based living in a natural way

3. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually fulfilling human behavior and mutually enriching interaction with Nature

Thus, this course is intended to provide a much needed orientational input in value education to the young enquiring minds.

Course Methodology

1. The methodology of this course is explorational and thus universally adaptable. It involves a systematic and rational study of the human being vis-à-vis the rest of existence.
2. It is free from any dogma or value prescriptions.
3. It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as a proposal and the students are facilitated to verify it in their own right, based on their Natural Acceptance and subsequent Experiential Validation.
4. This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and then to continue within the student leading to continuous self-evolution.
5. This self-exploration also enables them to critically evaluate their pre-conditionings and present beliefs.



Course Syllabus: Universal Human Values and Professional Ethics [L-T-P: 3-0-0]

The whole course is divided into 5 modules.

After every two lectures of one hour each, there is a 2 hour practice session.

The teachers are oriented to the inputs through an eight to ten day workshop (Teachers' Orientation Program).

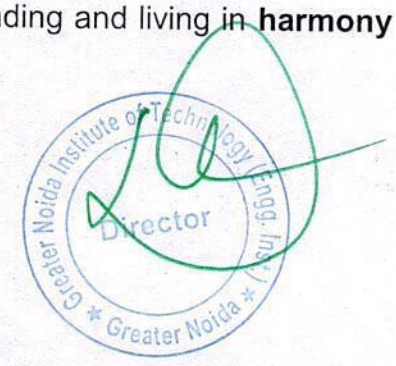
The Teacher's Manual provides them the lecture outline. The outline has also been elaborated into presentations and provided in a DVD with this book to facilitate sharing.

The teacher is expected to present the issues to be discussed as propositions and encourage the students to have a dialogue. The process of dialogue is enriching for both, the teacher as well as the students.

The syllabus for the lectures is given below:

UNIT 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

1. Understanding the need, basic guidelines, content and process for Value Education
2. Self Exploration–what is it? - its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self exploration
3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
6. Method to fulfill the above human aspirations: understanding and living in **harmony** at various levels



UNIT 2: Understanding Harmony in the Human Being - Harmony in Myself!

7. Understanding human being as a co-existence of the sentient 'I' and the material 'Body'
8. Understanding the needs of Self ('I') and 'Body' - *Sukh* and *Suvidha*
9. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)
10. Understanding the characteristics and activities of 'I' and harmony in 'I'
11. Understanding the harmony of I with the Body: *Sanyam* and *Swasthya*; correct appraisal of Physical needs, meaning of Prosperity in detail
12. Programs to ensure *Sanyam* and *Swasthya*
    - Practice Exercises and Case Studies will be taken up in Practice Sessions.

UNIT 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

13. *Understanding Harmony in the family – the basic unit of human interaction*
14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*;
    Trust (*Vishwas)* and Respect (*Samman)* as the foundational values of relationship
15. Understanding the meaning of *Vishwas*; Difference between intention and competence
16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
17. Understanding the harmony in the society (society being an extension of family): *Samadhan, Samridhi, Abhay, Sah-astitva* as comprehensive Human Goals
18. Visualizing a universal harmonious order in society- Undivided Society (*Akhand Samaj),* Universal Order (*Sarvabhaum Vyawastha)*- from family to world family!
    - Practice Exercises and Case Studies will be taken up in Practice Sessions.

UNIT 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

19. Understanding the harmony in the Nature
20. Interconnectedness and mutual fulfillment among the four orders of nature-recyclability and self-regulation in nature
21. Understanding Existence as Co-existence (*Sah-astitva*) of mutually interacting units in all-pervasive space
22. Holistic perception of harmony at all levels of existence
    - Practice Exercises and Case Studies will be taken up in Practice Sessions.

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UNIT 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

23. Natural acceptance of human values
24. Definitiveness of Ethical Human Conduct
25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
26. Competence in professional ethics:
    a) Ability to utilize the professional competence for augmenting universal human order
    b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems,
    c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
27. Case studies of typical holistic technologies, management models and production systems
28. Strategy for transition from the present state to Universal Human Order:
    a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
    b) At the level of society: as mutually enriching institutions and organizations

Guidelines and Content for Practice Sessions

UNIT 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

PS 1: Introduce yourself in detail. What are the goals in your life? How do you set your goals in your life? How do you differentiate between right and wrong? What have been your achievements and shortcomings in your life? Observe and analyze them.

Expected outcome: the students start exploring themselves; get comfortable to each other and to the teacher and start finding the need and relevance for the course.

PS 2: Now-a-days, there is a lot of voice about many techno-genic maladies such as energy and natural resource depletion, environmental pollution, global warming, ozone depletion, deforestation, soil degradation, etc. – all these seem to be man-made problems threatening the survival of life on Earth – What is the root cause of these maladies & what is the way out in your opinion?

On the other hand, there is rapidly growing danger because of nuclear proliferation, arms race, terrorism, criminalization of politics, large scale corruption, scams, breakdown of relationships, generation gap, depression & suicidal attempts, etc – what do you think, is the root cause of these threats to human happiness and peace – what could be the way out in your opinion?

Expected outcome: the students start finding that technical education without study of human values can generate more problems than solutions. They also start feeling that lack of understanding of human values is the root cause of all problems and the sustained

solution could emerge only through understanding of human values and value based living. Any solution brought out through fear, temptation or dogma will not be sustainable.

PS 3:

1. Observe that each one of us has Natural Acceptance, based on which one can verify right or not right for him. Verify this in case of

i) What is Naturally Acceptable to you in relationship- Feeling of respect or disrespect?

ii) What is Naturally Acceptable to you – to nurture or to exploit others?

Is your living the same as your natural acceptance or different?

2. Out of the three basic requirements for fulfillment of your aspirations- right understanding, relationship and physical facilities, observe how the problems in your family are related to each. Also observe how much time & effort you devote for each in your daily routine.

Expected outcome:

1. The students are able to see that verification on the basis of natural acceptance and experiential validation through living is the only way to verify right or wrong, and referring to any external source like text or instrument or any other person cannot enable them to verify with authenticity; it will only develop assumptions.
2. The students are able to see that their practice in living is not in harmony with their natural acceptance most of the time, and all they need to do is to refer to their natural acceptance to remove this disharmony.
3. The students are able to see that lack of right understanding leading to lack of relationship is the major cause of problems in their family and not the lack of physical facilities in most of the cases, while they have given higher priority to earning of physical facilities in their life ignoring relationships and not being aware that right understanding is the most important requirement for any human being.

UNIT 2: Understanding Harmony in the Human Being - Harmony in Myself!

PS 4: List down all your desires. Observe whether the desire is related to Self (I) or Body. If it appears to be related to both, see which part of it is related to Self (I) and which part is related to Body.

Expected outcome: the students are able to see that they can enlist their desires and the desires are not vague. Also they are able to relate their desires to 'I' and 'Body' distinctly. If any desire appears related to both, they are able to see that the feeling is related to I while the physical facility is related to the body. They are also able to see that 'I' and 'Body' are two realities, and most of their desires are related to 'I' and not body, while their efforts are mostly centered on the fulfillment of the needs of the body assuming that it will meet the needs of 'I' too.

PS 5:

1. a. Observe that any physical facility you use, follows the given sequence with time : Necessary & tasteful→ unnecessary & tasteful → unnecessary & tasteless → intolerable

   b. In contrast, observe that any feeling in you is either naturally acceptable or not acceptable at all. If naturally acceptable, you want it continuously and if not acceptable, you do not want it any moment!

2. List down all your activities. Observe whether the activity is of 'I' or of Body or with the participation of both 'I' and Body.
3. Observe the activities within 'I'. Identify the object of your attention for different moments (over a period of say 5 to 10 minutes) and draw a line diagram connecting these points. Try to observe the link between any two nodes.

Expected outcome:

1. The students are able to see that all physical facilities they use are required for a limited time in a limited quantity. Also they are able to see that in case of feelings, they want continuity of the naturally acceptable feelings and they do not want feelings which are not naturally acceptable even for a single moment.
2. the students are able to see that activities like understanding, desire, thought and selection are the activities of 'I' only, the activities like breathing, palpitation of different parts of the body are fully the activities of the body with the acceptance of 'I' while the activities they do with their sense organs like hearing through ears, seeing through eyes, sensing through touch, tasting through tongue and smelling through nose or the activities they do with their work organs like hands, legs etc. are such activities that require the participation of both 'I' and body.
3. The students become aware of their activities of 'I' and start finding their focus of attention at different moments. Also they are able to see that most of their desires are coming from outside (through preconditioning or sensation) and are not based on their natural acceptance.

PS 6:

1. Chalk out programs to ensure that you are responsible to your body- for the nurturing, protection and right utilisation of the body.
2. Find out the plants and shrubs growing in and around your campus. Find out their use for curing different diseases.

Expected outcome: The students are able to list down activities related to proper upkeep of the body and practice them in their daily routine. They are also able to appreciate the plants wildly growing in and around the campus which can be beneficial in curing different diseases.

UNIT 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

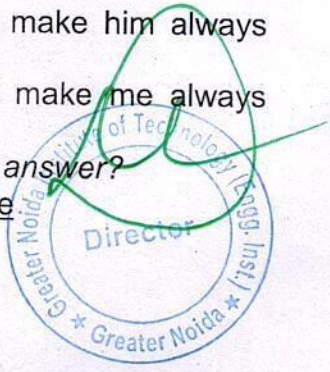
PS 7: Form small groups in the class and in that group initiate dialogue and ask the eight questions related to trust. The eight questions are :

1a. Do I want to make myself happy?
2a. Do I want to make the other happy?
3a. Does the other want to make him happy?
4a. Does the other want to make me happy?

What is the answer?
Intention (Natural Acceptance)

1b. Am I able to make myself always happy?
2b. Am I able to make the other always happy?
3b. Is the other able to make him always happy?
4b. Is the other able to make me always happy?

What is the answer?
Competence



Let each student answer the questions for himself and everyone else. Discuss the difference between intention and competence. Observe whether you evaluate your intention & competence as well as the others' intention & competence.

Expected outcome: The students are able to see that the first four questions are related to our Natural Acceptance i.e. Intention and the next four to our Competence. They are able to note that the intention is always correct, only competence is lacking! We generally evaluate ourselves on the basis of our intention and others on the basis of their competence! We seldom look at our competence and others' intention as a result we conclude that I am a good person and other is a bad person.

PS 8:

1. Observe on how many occasions you are respecting your related ones (by doing the right evaluation) and on how many occasions you are disrespecting by way of under-evaluation, over-evaluation or otherwise evaluation.
2. Also observe whether your feeling of respect is based on treating the other as yourself or on differentiations based on body, physical facilities or beliefs.

Expected outcome: The students are able to see that respect is right evaluation, and only right evaluation leads to fulfillment in relationship. Many present problems in the society are an outcome of differentiation (lack of understanding of respect), like gender biasness, generation gap, caste conflicts, class struggle, dominations through power play, communal violence, clash of isms, and so on so forth. All these problems can be solved by realizing that the other is like me as he has the same natural acceptance, potential and program to ensure a happy and prosperous life for him and for others though he may have different body, physical facilities or beliefs.

PS 9:

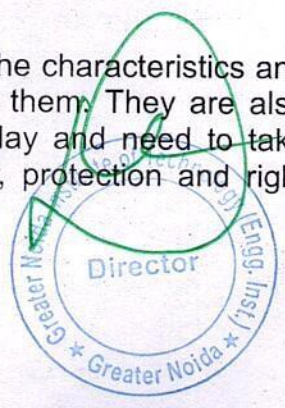
1. Write a note in the form of story, poem, skit, essay, narration, dialogue to educate a child. Evaluate it in a group.
2. Develop three chapters to introduce 'social science- its need, scope and content' in the primary education of children

Expected outcome: The students are able to use their creativity for educating children. The students are able to see that they can play a role in providing value education for children. They are able to put in simple words the issues that are essential to understand for children and comprehensible to them. The students are able to develop an outline of holistic model for social science and compare it with the existing model.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

PS 10: List down units (things) around you. Classify them in four orders. Observe and explain the mutual fulfillment of each unit with other orders.

Expected outcome: The students are able to differentiate between the characteristics and activities of different orders and study the mutual fulfillment among them. They are also able to see that human beings are not fulfilling to other orders today and need to take appropriate steps to ensure right participation(in terms of nurturing, protection and right utilization) in the nature.



PS 11:

1. Make a chart for the whole existence. List down different courses of studies and relate them to different units or levels in the existence.
2. Choose any one subject being taught today. Evaluate it and suggest suitable modifications to make it appropriate and holistic.

Expected outcome: The students feel confident that they can understand the whole existence; nothing is a mystery in this existence. They are also able to see the interconnectedness in the nature, and point out how different courses of study relate to the different units and levels. Also they are able to make out how these courses can be made appropriate and holistic.

UNIT 5: Implications of the above Holistic Understanding of Harmony at all Levels of Existence

PS 12: Choose any two current problems of different kind in the society and suggest how they can be solved on the basis of natural acceptance of human values. Suggest steps you will take in present conditions.

Expected outcome: The students are able to present sustainable solutions to the problems in society and nature. They are also able to see that these solutions are practicable and draw roadmaps to achieve them.

PS 13:

1. Suggest ways in which you can use your knowledge of Technology/Engineering/ Management for universal human order, from your family to the world family.
2. Suggest one format of humanistic constitution at the level of nation from your side.

Expected outcome: The students are able to grasp the right utilization of their knowledge in their streams of Technology/Engineering/ Management to ensure mutually enriching and recyclable productions systems.

PS 14: The course is going to be over now. Evaluate your state before and after the course in terms of

a. Thought b. Behavior and c. Work d. Realization

Do you have any plan to participate in the transition of the society after graduating from the institute? Write a brief note on it.

Expected outcome: The students are able to sincerely evaluate the course and share with their friends. They are also able to suggest measures to make the course more effective and relevant. They are also able to make use of their understanding in the course for a happy and prosperous society.

Greater Noida Institute of Technology (Engg. Inst.) Director Greater Noida

Reference Material

The primary resource material for teaching this course consists of

a. The text book

R.R Gaur, R Sangal, G P Bagaria, A foundation course in Human Values and professional Ethics, Excel books, New Delhi, 2010, ISBN 978-8-174-46781-2

b. The teacher's manual

R.R Gaur, R Sangal, G P Bagaria, A foundation course in Human Values and professional Ethics – Teachers Manual, Excel books, New Delhi, 2010

c. A set of DVDs containing

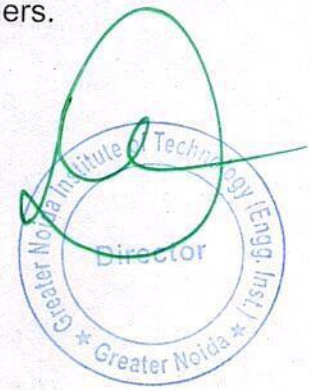
- Video of Teachers' Orientation Program
- PPTs of Lectures and Practice Sessions
- Audio-visual material for use in the practice sessions

In addition, the following reference books may be found useful for supplementary reading in connection with different parts of the course:

1. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.
2. PL Dhar, RR Gaur, 1990, *Science and Humanism*, Commonwealth Purblishers.
3. Sussan George, 1976, *How the Other Half Dies,* Penguin Press. Reprinted 1986, 1991
4. Ivan Illich, 1974, *Energy & Equity,* The Trinity Press, Worcester, and HarperCollins, USA
5. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, limits to Growth, Club of Rome's Report, Universe Books.
6. Subhas Palekar, 2000, *How to practice Natural Farming,* Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
7. A Nagraj, 1998, *Jeevan Vidya ek Parichay,* Divya Path Sansthan, Amarkantak.
8. E.F. Schumacher, 1973, *Small is Beautiful: a study of economics as if people mattered*, Blond & Briggs, Britain.
9. A.N. Tripathy, 2003, *Human Values*, New Age International Publishers.

Relevant websites, movies and documentaries

1. Value Education websites, http://uhv.ac.in, *http://www.uptu.ac.in*
2. Story of Stuff, *http://www.storyofstuff.com*
3. Al Gore, *An Inconvenient Truth*, Paramount Classics, USA
4. Charlie Chaplin, *Modern Times*, United Artists, USA
5. IIT Delhi, *Modern Technology – the Untold Story*
6. *Gandhi A., Right Here Right Now, Cyclewala Productions*



ORGANIZATIONAL BEHAVIOR
KMB105

Course Objectives:

1. To enhance the understanding of the dynamics of interactions between individual and the organization.
2. To facilitate a clear perspective to diagnose and effectively handle human behavior issues in Organizations.
3. To develop greater insight into their own behavior in interpersonal and group, team, situations.

Course Credit: 3 **Contact hours: 36hrs**

UNIT I: (8 Hours)

Introduction to OB: The meaning of OB, Why study organizational behaviour, Fundamentals of individual behaviour. Determinants of Personality, types of personality, Personal effectiveness. Attitudes: Meaning, Types, Components, Theory of attitude formation and attitude change.

UNIT II: (8 Hours)

Foundation of Group Behaviour: Group: Meaning, types, group dynamics, group cohesiveness, Meaning of Interpersonal Behaviour& Interpersonal skills, Transactional Analysis, Johari Window, FIRO – B, MBTI

UNIT III: (8 Hours)

Motivation: Meaning & definition, Traditional theory of Motivation: Maslow's, Herzberg's, McClelland, Contemporary theories of Motivation: Self Determination Theory, Self Efficacy Theory, Vroom's Expectancy Theory, Equity Theory, Reinforcement Theory, OB MOD.

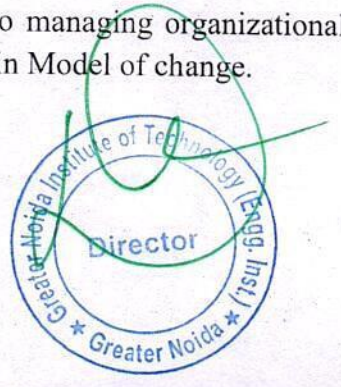
Perception: Meaning, process, principles and errors of perception, managerial &behavioural applications of perception.

UNIT IV: (8 Hours)

Leadership: What is leadership, types of leaders and leadership styles, traits and qualities of effective leader, trait theory, LSM – Leadership Situational Model, Team Building, Tuckman Model of Team Development.

UNIT V: (4 Hours)

Organizational Change: Meaning of organizational change, approaches to managing organizational change, creating a culture for change, implementing the change, Kurt Lewin Model of change.



Employable Skills	Measuring Tools
Ability to identify and apply the knowledge of subject practically in real life situations	Exercise Workshop Quiz Classroom Discussions

Course Outcomes: Upon the successful completion of this course, the student will be able to:

Course Outcomes	Bloom's taxonomy
CO 1: Comprehending the nature, functioning and design of organizations as social collectives	• **Comprehending (K3)** • **Knowledge (K 2)**
CO2: To evaluate the reciprocal relationship between the organizational characteristics and managerial behavior.	• **Analyzing (K 5)**
CO 3: Develop practical insights and problem solving capabilities for effectively managing the Organisational processes	• **Synthesizing (K6)**
CO 4: Analysing the behavior of individuals and groups in organizations.	• **Analyzing (K 5)**
CO 5: Developing conceptual understanding of change and its implementation.	• **Applying (K4)**

References:

Books:

1. Fred Luthans, "Organizational Behaviour", 12th Edition, McGraw Hill International Edition
2. Stephen P. Robbins, "Organizational Behaviour", 12th Edition, Prentice Hall
3. Aswathappa K, "Organizational Behaviour (Text, Cases and Games)", Himalaya Publication
4. UdaiPareek, "Organizational Behavior", Oxford University Press

Director

Business Communication
KMB107

Course Objectives

1: To understand business communication strategies and principles for effective communication in domestic and international business situations.
2: To understand and appropriately apply modes of expression, i.e., descriptive, expositive, narrative, scientific, and self-expressive, in written, visual, and oral communication.
3: To develop the ability to research and write a documented paper and/or to give an oral presentation.
4 : To develop the ability to communicate via electronic mail, Internet, and other technologies for presenting business messages.
5: To understand and apply basic principles of critical thinking, problem solving, and technical proficiency in the development of exposition and argument.

Course Credits 3 **Hours 36 Hrs**

UNIT I : (8 hrs)

Introduction: Role of communication – defining and classifying communication – purpose of communication – process of communication –characteristics of successful communication – importance of communication in management – communication structure in organization – communication in crisis - barriers to communication.

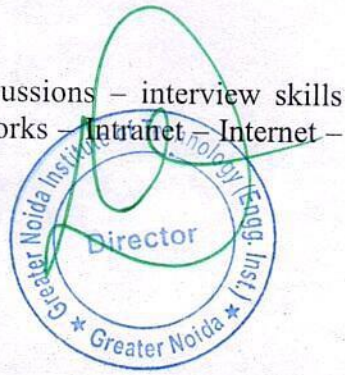
UNITII: (7 hrs)

Oral communication: What is oral Communication – principles of successful oral communication – what is conversation control – reflection and empathy: two sides of effective oral communication – effective listening – non – verbal communication. Written communication: Purpose of writing – clarity in writing – principles of effective writing – approaching the writing process systematically: The 3X3 writing process for business communication: Pre writing – Writing – Revising – Specific writing features – coherence – electronic writing process.

UNITIII: (7 hrs)

Business letters and reports: Introduction to business letters – writing routine and persuasive letters – positive and negative messages- writing memos – what is a report purpose, kinds and objectives of report writing. Presentation skills: What is a presentation – elements of presentation – designing a presentation. Advanced visual support for business presentation types of visual aid

UNITIV: (7 hrs)
Employment communication: Introduction – writing CVs – Group discussions – interview skills Impact of Technological Advancement on Business Communication networks – Intranet – Internet – e mails – SMS – teleconferencing – video conferencing.



UNITV : (7 hrs)

Group communication: Meetings – Planning meetings – objectives – participants – timing – venue of meetings – leading meetings. Media management – the press release press conference – media interviews Seminars – workshop – conferences. Business etiquettes.

Course Outcomes

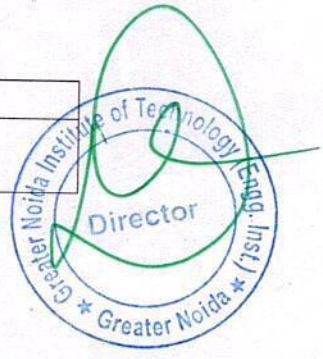
Upon successful completion of this course, the student should be able to:

S. No.	Course Outcome	Bloom's Taxonomy
1	**CO1.** Apply business communication strategies and principles to prepare effective communication for domestic and international business situations.	Applying (K4)
2	**CO2.** Analyse ethical, legal, cultural, and global issues affecting business Communication.	Analyse (K5)
3	**CO3.** Develop an understanding of appropriate organizational formats and channels used in business communications	Knowledge (K2)
4	**CO4.** Gaining an understanding of emerging electronic modes of communication.	Comprehending(K3)
5	**CO5.** Developing effective verbal and non verbal communication skills.	Remembering(K1)/ Applying (K4)

Suggested Readings:

1. Bovee&Thill – Business Communication Essentials A Skill – Based Approach to Vital Business English. Pearson.
2. Kulbhushan Kumar & R.S. Salaria, Effective Communication Skills, Khanna Publishing House, Delhi
3. Bisen&Priya – Business Communication (New Age International Publication)
4. Kalkar, Suryavanshi, Sengupta-Business Communication(Orient Blackswan)
5. Varinder Bhatia, Business Communications, Khanna Publishing House
5. Business Communication : Skill, Concepts And Applications – P D Chaturvedi, MukeshChaturvedi Pearson Education.
6. AshaKaul, Business Communication, Prentice Hall of India.

EMPLOYABLE SKILLS Skill	Measurement tool
Understanding of fundamentals of business communication strategies.	Presentations, Quiz



RAS501	Managerial Economics	L-T-P: 3-0-0
Unit	**Topic**	**Proposed Lecture**
I	**Introduction of Engineering Economics and Demand Analysis**: Meaning and nature of Economics, Relation between science, engineering, technology and economics; Meaning of Demand, Determinants of Demand, Shifts in demand, Law of Demand, Price Elasticity of Demand &Types, Income Elasticity, Cross price Elasticity, Determinants of Elasticity, uses and importance of elasticity.	**06**
II	**Concept of Supply**: Law of Supply, Factors affecting Supply, Elasticity of supply. **Demand Forecasting**: Introduction, Meaning and Forecasting, Methods or Techniques of Demand Forecasting, Criteria for Good Demand Forecasting, Demand Forecasting for a New Product;	**06**
III	**Cost Analysis-** Introduction, Types of Costs, Cost-Output Relationship: Cost Function, Cost-Output Relationships in the Short Run, and Cost-Output Relationships in the Long Run; Short run and long run, Break- Even Analysis; Production functions: laws of variable proportions, law of returns; Economies of scale: Internal and external.	**06**
IV	Market Structure: Market Structure Perfect Competition, Imperfect competition – Monopolistic, Oligopoly, duopoly sorbent features of price determination and various market conditions.	**06**
V	Nature and characteristics of Indian economy, concepts of LPG, elementary concepts of National Income, Inflation and Business Cycles ,Concept of N.I. and Measurement., Meaning of Inflation, Types and causes , Phases of business cycle .Investment decisions for boosting economy(National income and per capital income)	**06**

References:

1. Premvir Kapoor, Sociology and Economics for Engineers, Khanna Publishing House (Edition 2018)
2. Salvatore D, "Principles of Microeconomics", Oxford University Press.
3. Koutsoyiannis A, "Modern Microeconomic", Macmillan Education Ltd.
4. Dwivedi DN, "Principles of Microeconomics", Pearson Education.
5. Cowell, FA, "Microeconomic Principles and Analysis", Oxford University Press.

RAS502/ RAS602	SOCIOLOGY	L-T-P: 3-0-0
Unit	**Topic**	**Proposed Lecture**
I	Industrial Sociology: Nature, Scope and Importance of Industrial Sociology. Social Relations in Industry, Social Organisation in Industry- Bureaucracy, Scientific Management and Human Relations.	**06**
II	Rise and Development of Industry: Early Industrialism – Types of Productive Systems – The Manorial or Feudal system. The Guild system, The domestic or putting-out system, and the Factory system. Characteristics of the factory system. Causes and Consequences of industrialization. Obstacles to and Limitations of Industrialization.	**06**
III	Industrialization in India. Industrial Policy Resolutions – 1956.Science. Technology and Innovation Policy of India 2013.	**06**
IV	Contemporary Issues: Grievances and Grievance handling Procedure. Industrial Disputes: causes, Strikes and Lockouts. Preventive Machinery of Industrial Disputes: Schemes of Workers Participation in Management- Works Committee, Collective Bargaining, Bi-partite & Tri-partite Agreement, Code of Discipline, Standing Orders. Labour courts & Industrial Tribunals.	**06**
V	Visualizing the future: Models of industrialization- Collectivist, anarchist, free market, environmentalist, etc. Cultural issues, consumer society and sociological concerns.	**06**

References:

1. PREMVIR KAPOOOR, Sociology & Economics for Engineers, Khanna Publishing House (Edition 2018).
2. GISBERT PASCAL, Fundamentals of Industrial sociology, Tata McGraw Hill, New Delhi, 1972.
2. SCHNEIDER ENGNO V., Industrial Sociology 2nd Ed., McGraw Hill Publishing Co., New Delhi, 1979.
3. MAMORIA C.B. And MAMORIA S., Dynamics of Industrial Relations in India.
4. SINHA G.P. and P.R.N. SINHA, Industrial Relations and Labour Legislations, New Delhi, Oxford and IBH Publishing Co., 1977.
5. S.C. SHARMA, Industrial Safety and Health Management, Khanna Book Publishing Co. (P) Ltd., Delhi (ISBN: 978-93-86173-188)
5. NADKARNI, LAKSHMI, Sociology of Industrial Worker, Rawat, Jaipur,1998.
6. BHOWMICK SHARIT, Industry, Labour and Society,Orient, 2012.
7. RICHARD BROWN, JOHN CHILD, AND S R PARKER, The Sociology of Industry 1st Edition, Routledge, 2015.

RAS601	INDUSTRIAL MANAGEMENT	L-T-P: 3-0-0
Unit	**Topic**	**Proposed Lecture**
I	Introduction: Concept and scope of Industrial Management. Productivity: Definition, measurement, productivity index, types of production system, Industrial Ownership.	**06**
II	Functions of Management, Taylor's Scientific Management Theory, Fayol's Principles of Management, Social responsibilities of Management, Introduction to Human resources management: Nature of HRM, functions and importance of HRM.	**06**
III	**Work Study:** Introduction, definition, objectives, steps in work study, Method study: definition, objectives, steps of method study, Work Measurement: purpose, types of study — stop watch methods — steps — allowances — standard time calculations — work sampling, Production Planning and Control Inventory Control: Inventory, Cost, Models of inventory control: EOQ, ABC, VED	**06**
IV	Quality Control: statistical quality control, Control charts for variables and attributes, Acceptance Sampling- Single sampling- Double sampling plans, Introduction to TQM.	**06**
V	**Project Management**: Project network analysis, CPM, PERT and Project crashing and resource Leveling	**06**

References:

1. Engineering Management (Industrial Engineering & Management)/ S.C. Sharma & T.R. Banga, Khanna Book Publishing Co. (P) Ltd., Delhi (ISBN: 978-93-86173-072)

2. Industrial Engineering and Management/ P. Khanna, Dhanpatrai publications Ltd.

3. Production & Operation Management /PaneerSelvam /PHI.

4. Industrial Engineering Management/NVS Raju/Cengage Learning.

5. Industrial Engineering Management I RaviShankar/ Galgotia.