Syllabus for B.Tech(Civil Engineering) Up to Third Year

Revised Syllabus of B.Tech CE (for the students who were admitted in Academic Session 2010-2011)

Proposed Structure for Forthcoming Semester of B.Tech Courses on CE

Fourth Year – Seventh Semester

Sl. No	Field	Theory	L	T	P	Total	Cr. Points
A. THEORY			Contact hours per week				
1	CE701	Environmental Engineering	3	0	0	3	3
2	CE702	Water Resource Engineering	3	0	0	3	3
3	CE703	Professional Elective II	3	0	0	3	3
4	CE704	Professional Elective III	3	0	0	3	3
5	CE705	Free Elective II	3	0	0	3	3
Total Theory						15	15
B. PRACTICAL							
6	HU781	Group Discussion	0	0	3	3	2
7	CE791.	Environmental Engg Lab	0	0	3	3	2
8	CE792	Civil Engineering Practice Sessional	0	0	3	3	2
9	CE793	Free Elective Laboratory	0	0	3	3	2
10	CE782	Industrial Training	4 weeks duration during 6th-7th Semester break				2
11	CE783	Project Part I				6	2
Total Practical						18	12
Total of Semester						33	27

Fourth Year – Eighth Semester

Sl. No	Field	Theory	L	T	P	Total	Cr. Points
A. THEORY			Contact hours per week				
1	HU801A HU801B	Organisational Behaviour/ Project Management	2	0	0	2	2
2	CE801	Professional Elective IV	3	0	0	3	3
3	CE802	Professional Elective V	3	0	0	3	3
Total Theory						8	8
B. PRACTICAL							
4	CE891	Structural Engineering Design Practice	0	0	6	6	4
5	CE881	Project Part II	0	0	12	12	6
6	CE882	Grand – Viva					3
Total Practical						18	13
Total of Semester						26	21

Free Elective II
CE705A Engineering Materials (ME303)
CE705B Electrical and Electronic Measurement (EE402)

Free Elective Lab
CE793A Material Testing Lab (ME493)
CE793B Electrical and Electronic Measurement Laboratory (EE492)

List of Electives:

Professional Elective – II
1. CE703A Advanced Foundation Engineering
2. CE703B Soil Stabilization and Ground Improvement Techniques
3. CE703C Advanced Highway and Transportation Engineering

Professional Elective – III
1. CE704A Advanced Structural Analysis
2. CE704B Hydraulic Structures

Professional Elective – IV
1. CE801A Environmental Pollution and Control
2. CE801B Water Resource Management and Planning
3. CE801C Remote Sensing and GIS

Professional Elective – V
1. CE802A Finite Element Method
2. CE802B Dynamics of Soils & Foundations
3. CE802C Design of Tall Buildings
4. CE802D Pavement Design

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Curriculum Structure
Semester III (Second year)

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	**T**	**P**	
Theory							
1	Basic Science courses	CE(BS)301	Biology for Engineers	2	1	0	3
2	Engineering Science Courses	CE(ES)301	Engineering Mechanics	3	1	0	4
3	Engineering Science Courses	CE(ES)302	Energy Science & Engineering	1	1	0	2
4	Basic Science courses	CE(BS)301	Mathematics-III (Transform & Discrete Mathematics)	2	0	0	2
5	Humanities and Social Sciences including Management courses	CE(HS)301	Humanities-I (Effective Technical Communication)	3	0	0	3
6	Humanities and Social Sciences including Management courses	CE(HS)302	Introduction to Civil Engineering	1	1	0	2
						Theory credits	**16**
Practical/ Sessional							
1	Engineering Science Courses	CE(ES)391	Basic Electronics	1	0	2	2
2	Engineering Science Courses	CE(ES)392	Computer-aided Civil Engineering Drawing	1	0	2	2
3	Engineering Science Courses	CE(ES)393	Life Science	1	0	2	2
						Practical credits	**6**
						Total credits	**22**

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Semester IV (Second year]

Sl. No.	Category	Code	Course Title	L	T	P	Credits
				Hours per week			
Theory							
1	Engineering Science Courses	CE(ES)401	Introduction to Fluid Mechanics	2	0	0	2
2	Engineering Science Courses	CE(ES)402	Introduction to Solid Mechanics	2	0	0	2
3	Professional Core courses	CE(PC)401	Soil Mechanics – I	2	1	0	3
4	Professional Core courses	CE(PC)402	Environmental Engineering -I	2	1	0	3
5	Professional Core courses	CE(PC)403	Surveying & Geomatics	2	1	0	3
6	Professional Core courses	CE(PC)404	Concrete Technology	2	1	0	3
7	Humanities and Social Sciences including Management courses	CE(HS)401	Civil Engineering - Societal & Global Impact	2	0	0	2
8	Mandatory Courses (non-credit)	CE(MC)401	Management I (Organizational Behavior)	2	0	0	0
			Theory credits				**18**
Practical/ Sessional							
1	Professional Core courses	CE(ES)491	Fluid Mechanics Laboratory	0	0	2	1
2	Professional Core courses	CE(ES)492	Solid Mechanics Laboratory	0	0	2	1
3	Professional Core courses	CE(ES)493	Engineering Geology Laboratory	0	0	2	1
4	Professional Core courses	CE(PC)493	Surveying & Geomatics	0	0	2	1
5	Professional Core courses	CE(PC)494	Concrete Technology Laboratory	0	0	2	1
			Practical credits				**5**
			Total credits				**23**

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Semester V (Third year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Professional Core courses	CE(PC)501	Design of RC Structures	2	1	0	3
2	Professional Core courses	CE(PC)502	Engineering Hydrology	2	1	0	3
3	Professional Core courses	CE(PC)503	Structural Analysis – I	2	1	0	3
4	Professional Core courses	CE(PC)504	Soil Mechanics – II	2	1	0	3
5	Professional Core courses	CE(PC)505	Environmental Engineering – II	2	1	0	3
6	Professional Core courses	CE(PC)506	Transportation Engineering	2	1	0	3
7	Mandatory courses (non-credit)	CE(MC)501	Constitution of India/ Essence of Indian Knowledge Tradition	-	-	-	0
						Theory credits	**18**
Practical/ Sessional							
1	Professional core courses	CE(PC)591	RC Design Sessional	0	0	2	1
2	Professional core courses	CE(PC)594	Soil Mechanics Laboratory	0	0	2	1
3	Professional core courses	CE(PC)595	Environmental Engineering Laboratory	0	0	2	1
4	Professional core courses	CE(PC)596	Transportation Engineering Laboratory	0	0	2	1
5	Professional core courses	CE(PC)597	Computer Application in CE	0	0	2	1
						Practical credits	**5**
						Total credits	**23**

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Semester VI (Third year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	**T**	**P**	
Theory							
1	Professional Core courses	CE(PC)601	Construction Engineering & Management	2	0	0	2
2	Professional Core courses	CE(PC)602	Engineering Economics, Estimation & Costing	2	0	0	2
3	Professional Core courses	CE(PC)603	Water Resources Engineering	2	0	0	2
4	Professional Core courses	CE(PC)604	Design of Steel Structures	2	0	0	2
5	Professional Elective courses	CE(PE)601	Elective-I	2	0	0	2
6	Professional Elective courses	CE(PE)602	Elective-II	2	0	0	2
7	Open Elective courses	CE(OE)601	Open Elective-I (Humanities)	2	0	0	2
						Theory credits	**14**
Practical/ Sessional							
1	Professional Core courses	CE(PC)693	Water Resource Engineering Laboratory	0	0	2	1
2	Professional Core courses	CE(PC)694	Steel Structure Design Sessional	0	0	2	1
3	Professional Core courses	CE(PC)695	Quantity Survey Estimation and Valuation Sessional	0	1	2	2
						Practical credits	**4**
						Total credits	**18**

CE(PE)601 (Elective-I)	CE(PE)602 (Elective-II)
601A: Stability of Slopes	602A : Building Construction Practice
601B: **Foundation Engineering**	602B : **Structural Analysis-II**
601C: Ground Improvement Technique	602C : Industrial Structures
CE(OE)601 (Open Elective-I)	
601A: Soft Skills and Interpersonal Communication – I 601B: Introduction to Philosophical Thoughts	

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Semester VII (Fourth year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	**T**	**P**	
Theory							
1	Open Elective courses	CE(OE)701	Open Elective-II	2	0	0	2
2	Professional Elective courses	CE(PE)701	Elective III	2	1	0	3
3	Professional Elective courses	CE(PE)702	Elective IV	2	1	0	3
4	Professional Elective courses	CE(PE)703	Elective V	2	1	0	3
5	Professional Elective courses	CE(PE)704	Elective-VI	2	1	0	3
6	Professional Elective courses	CE(PE)705	Elective-VII	2	0	0	2
						Theory credits	**16**
Practical/ Sessional							
1	Internship	CE(IN)791	Industrial Internship (after sixth semester)				1
2	Project	CE(PROJ)792	Project-1 (Project work)	0	0	10	5
						Practical credits	**6**
						Total credits	**22**

CE(OE)701 (Open Elective-II)	CE(PE)701 (Elective-III)
A: Metro Systems & Engineering	701A: Computational Hydraulics
B: ICT for Development	701B: Disaster Preparedness and Planning
C: Cyber Law & Ethics	701C: Hydraulic Structure
CE(PE)702 (Elective-IV)	**CE(PE)703 (Elective-V)**
702A: Prestressed Concrete	703A: Air and Noise Pollution and Control
702B: Repairs & Rehabilitation of Structures	703B: Physico-Chemical Processes for Water and Wastewater Treatment
702C: Finite Element Method	703C: Water and Air Quality Modelling
CE(PE)704 (Elective-VI)	**CE(PE)705 (Elective-VII)**
704A: Structural Dynamics	705A: Railway and Airport Engineering
704B: Advanced Structural Analysis	705B: Pavement Design
704C: Coastal Hydraulics and Sediment Transport	705C: Transport System Planning

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Semester VIII (Fourth year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Humanities and Social Sciences including Management courses	CE(HS)801	Professional Practice, law & Ethics	2	0	0	2
2	Professional Elective Courses	CE(PE)801	Elective VIII	2	0	0	2
3	Open Elective courses	CE(OE)801	Open Elective-III	2	0	0	2
4	Open Elective courses	CE(OE)802	Open Elective-IV	2	0	2	2
					Theory credits		8
Practical/ Sessional							
1	Comprehensive Viva Voce	CE(CV)891	Comprehensive Viva Voce				1
2	Project	CE(PROJ)892	Project-2 (Continued from VII)	0	0	10	5
					Practical credits		6
					Total credits		14

CE(PE)801 (Elective-VIII)	
801A: GIS & Remote Sensing 801B: Rock Mechanics 801C: Environmental laws and Policy 801D: Pavement Materials and Design	
CE(OE)801 (Open Elective-III)	**CE(OE)802 (Open Elective-IV)**
A: Human Resource Development and Organizational Behavior **B: Bridge Engineering** C: Deep Foundations D: Groundwater Contamination	A: Soft Skills and Personality Development B: Earthquake Engineering C: Urban Transport Planning D: Environmental Impact Assessment and Life cycle Analysis

TOTAL CREDITS – [38 +(22+23)+(23+18)+(21+15)]=160

SEM 1 & SEM 2	SEM3	SEM4	SEM5	SEM6	SEM7	SEM8	Total
38	22	23	23	18	21	15	160

Syllabus for B.Tech(Computer Science & Engineering) Up to Fourth Year

Revised Syllabus of B.Tech CSE (for the students who were admitted in Academic Session 2010-2011)

CSE

Second Year - Third Semester

Sl.No.	Field	Theory	L	T	P	Total	Cr. Points
A. THEORY							
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics-2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology;	3	0	0	3	3
4	CS301	Analog & Digital Electronics	3	0	0	3	3
5	CS302	Data Structure & Algorithm	3	1	0	4	4
6	CS303	Computer Organisation	3	1	0	4	4
		Total of Theory				**21**	**21**
B. PRACTICAL							
7	**PH391**	Physics-2	0	0	3	3	2
8	**CS391**	Analog & Digital Electronics	0	0	3	3	2
9	**CS392**	Data Structure & Algorithm	0	0	3	3	2
10	**CS393**	Computer Organisation	0	0	3	3	2
		Total of Practical				**12**	**8**
		Total of Semester				**33**	**29**

Second Year - Fourth Semester

Sl.No.	Field	Theory	L	T	P	Total	Cr. Points
A. THEORY							
			L	T	P	Total	
1	**M(CS)401**	Numerical Methods	2	1	0	3	2
2	**M401**	Mathematics-3	3	1	0	4	4
3	**CS401**	Communication Engg & Coding Theory	21	0	0	3	3
4	**CS402**	Formal Language & Automata Theory	3	1	0	4	4
5	**CS403**	Computer Architecture	3	1	0	4	4
		Total of Theory				**18**	**17**
B. PRACTICAL							
6	**HU481**	Technical Report Writing & Language Lab Practice	0	0	3	3	2
7	**M(CS)491**		0	0	2	2	1
8	**CS491.**	Communication Engg & Coding Theory	0	0	3	3	2
9	**CS492**	Software Tools	0	0	3	3	2
10	**CS493**	Computer Architectur	0	0	3	3	2
		Total of Practical				**14**	**9**
		Total of Semester				**32**	**26**

Syllabus for B.Tech(Computer Science & Engineering) Up to Fourth Year

Revised Syllabus of B.Tech CSE (for the students who were admitted in Academic Session 2010-2011)

Third Year - Fifth Semester

Sl. No	Field	Theory					Cr. Pts
A.		**THEORY**					
			Contact Hours/Week				
			L	T	P	Total	
1	**HU501**	Economics for Engineers	3	0	0	3	3
2	**CS501**	Design & Analysis of Algorithm	3	**1**	0	4	4
3	**CS502**	Microprocessors & Microcontrollers	3	**1**	0	4	4
4	**CS503**	Discrete Mathematics	3	0	0	3	3
5	**Free Elective** **CS504A** **CS504B** **CS504C** **CS504D**	Circuit Theory & Network (ECE) Data Communication (ECE) Digital Signal Processing (ECE Object Oriented Programming (IT)	3	**0/1**	0	3/4	3/4
		Total of Theory				**17/18**	**17-18**
B.		**PRACTICAL**					
6	**CS591**	Design & Analysis of Algorithm	0	0	3	3	2
7	**CS592**	Microprocessors & Microcontrollers	0	0	3	3	2
8	**CS593**	Programming Practices using C++	1	0	2	3	2
9	**F.E.** **CS594A** **CS594B** **CS594C** **CS594D**	Circuit Theory & Network (ECE) Data Communication (ECE) Digital Signal Processing (ECE) Object Oriented Programming (IT)	0	0	3	3	2
		Total of Practical				**12**	**8**
		Total of Semester				**29/30**	**25-26**

Third Year - Sixth Semester

Sl. No.	Field	Theory					Cr. Pts
A.		**THEORY**					
			Contact Hours/Week				
			L	T	P	Total	
1	**HU601**	Principles of Management	2	0	0	2	2
2	**CS601**	Data Base Management System	3	0	0	3	3
3	**CS602**	Computer Networks	3	0	0	3	3
4	**CS603**	Operating System	3	0	0	3	3
5	**P.E** **CS604A** **CS604B** **CS604C**	Information Theory & Coding Computer Graphics ERP	3	0	0	3	3
6	**F. E.** **CS605A** **CS605B** **CS605C**	Operation Research (M) Human Resource Management (HSS) Multimedia Technology (IT)	3/3	0/1	0/0	3/4	3/4
		Total of Theory				**17/18**	**17-18**
B.		**PRACTICAL**					
7	**CS691**	8. Data Base Management System Lab	0	0	3	3	2
8.	**CS692**	9. Network Lab	0	0	3	3	2
9.	**CS693**	10.Operating System Lab	0	0	3	3	2
10	**CS681**	**Seminar**	**0**	**0**	**3**	**3**	**2**
		Total of Practical				**12**	**8**
		Total of Semester				**29-30**	**25-26**

Syllabus for B.Tech(Computer Science & Engineering) Up to Fourth Year

Revised Syllabus of B.Tech CSE (for the students who were admitted in Academic Session 2010-2011)

Proposed

Fourth Year - Seventh Semester

Sl. No.	Field	Theory	L	T	P	Total	Cr. Pts
		A. THEORY					
1	**CS701**	Software Engg.	3	0	0	3	3
2	**CS702**	Compiler Design	3	0	0	3	3
3	**CS703**	A. Pattern Recognition B. Soft Computing C. Artificial Intelligence D. Image Processing	3	**0**	0	3	3
4	**CS704**	A. Distributed Operating System B. Cloud Computing C. Data Warehousing and Data Mining D. Sensor Networks E. Mobile Computing	3	0	0	3	3
5	**CS705**	A. Internet Technology (IT) B. Microelectronics & VLSI Design (ECE) C. Control System (EE) D. Modelling & Simulation (M)	3	0	0	3	3
		Total of Theory				15	15
		B. PRACTICAL					
6	**HU781**	Group Discussion	0	0	3	3	2
7	**CS791**	Software Engg. Lab	0	0	3	3	2
8	**CS793**	A. Pattern Recognition B. Soft Computing C. Artificial Intelligence D. Image Processing	0	0	3	3	2
9	**CS795**	A. Internet Technology (IT) B. Microelectronics & VLSI Design (ECE) C. Control System (EE) D. Modelling & Simulation (M)	0	0	3	3	2
10	**CS792**	Industrial training	4 wks during 6th -7th Sem-break				2
11	**CS794**	Project- 1				3	2
		Total of Practical				15	12
		Total of Semester				30	27

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Syllabus for B.Tech(Computer Science & Engineering) Up to Fourth Year

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Fourth Year - Eighth Semester

A. THEORY

Sl. No.	Field	Theory	L	T	P	Total	Cr. Pts
1	HU801A HU801B	A. Organisational Behaviour B. Project Management	2	0	0	2	2
2	CS801	A. Advanced Computer Architecture B. Parallel Computing C. Natural Language Processing D. Cryptography & Network Security E. Business Analytics	3	0	0	3	3
3	CS802	A. Technology Management (HSS) B. Cyber Law & Security Policy (HSS) C. Optical Networking (ECE) D. Low Power Circuits & Systems (ECE) E. E-Commerce(IT) F. Robotics(EE & ME)	3	0	0	3	3
		Total of Theory				8	8

B. PRACTICAL

Sl. No.	Field		L	T	P	Total	Cr. Pts
4	CS891	Design Lab / Industrial problem related practical training (Workshop needed)	0	0	6	6	4
5	CS892	Project-2	0	0	12	12	6
6	CS893	Grand Viva					3
		Total of Practical				18	13
		Total of Semester				26	21

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Curriculum Structure

Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	**T**	**P**	
Semester III (Second year)							
Theory							
1	Engineering Science Course	ESC 301	Analog and Digital Electronics	3	0	0	3
2	Professional Core Courses	PCC-CS301	Data Structure & Algorithms	3	0	0	3
3	Professional Core Courses	PCC-CS302	Computer Organisation	3	0	0	3
4	Basic Science course	BSC 301	Mathematics-III (Differential Calculus)	2	0	0	2
5	Humanities & Social Sciences including Management courses	HSMC 301	Economics for Engineers (Humanities-II)	3	0	0	3
Practical							
6	Professional Core Courses	PCC-CS393	IT Workshop (Sci Lab/MATLAB/Python/R)	0	0	4	2
7	Engineering Science Course	ESC 391	Analog and Digital Electronics	0	0	4	2
8	Professional Core Courses	PCC-CS391	Data Structure & Algorithms	0	0	4	2
9	Professional Core Courses	PCC-CS392	Computer Organisation	0	0	4	2
			Total credits				**22**
Semester IV (Second year)							
Sl. No.	Type of course	Code	Course Title	**L**	**T**	**P**	Credits
Theory							
1	Professional Core Courses	PCC-CS401	Discrete Mathematics	3	1	0	4
2	Professional Core Courses	PCC-CS 402	Computer Architecture	3	0	0	3
3	Professional Core Courses	PCC-CS403	Formal Language & Automata Theory	3	0	0	3

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4	Professional Core Courses	PCC-CS404	Design & Analysis of Algorithms	3	0	0	3
5	Basic Science courses	BSC 401	Biology	2	1	0	3
6	Mandat ory Courses	MC401	Environmental Sciences	1	-	-	0
Practical							
7	Engineering Science Course	PCC-CS 492	Computer Architecture	0	0	4	2
8	Professional Core Courses	PCC-CS494	Design & Analysis of Algorithms	0	0	4	2
						Total credits	**20**

Semester V (Third year)							
Sl. No.	**Type of course**	**Code**	**Course Title**	**Hours per week**			**Credits**
				L	**T**	**P**	
1	Engineering Science Course	ESC501	Software Engineer ing	3	0	0	3
2	Professional Core Courses	PCC-CS501	Compiler Design	3	0	0	3
3	Professional Core Courses	PCC-CS502	Operating Systems	3	0	0	3
4	Professional Core Courses	PCC-CS503	Object Oriented Programming	3	0	0	3
5	Humanities &Social Sciences including Management courses	HSMC-501	Introduction to Industrial Management (Humanities III)	3	0	0	3
6	Professional Elective	PEC-IT 501A/B/C/D	(Elective-I) Theory of	3	0	0	3

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	courses		Computation/Artificial Intelligence/ Advanced Computer Architecture/ Computer Graphics				
7	Mandatory Courses	MC- CS501	Constitution of India/ Essence of Indian Knowledge Tradition	-	-	-	0
Practical							
8	Professional Core Courses	ESC-591	Software Engineering		0	4	2
9	Professional Core Courses	PCC-CS592	Operating Systems		0	4	2
10	Professional Core Courses	PCC-CS593	Object Oriented Programming		0	4	2
			Total credits				**24**

Semester VI (Third year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Core Courses	PCC-CS601	Database Management Systems	3	0	0	3
2	Professional Core Courses	PCC-CS602	Computer Networks	3	0	0	3
3	Professional Elective courses	PEC-IT601A/B/C/D	(Elective-II) Advanced Algorithms/ Distributed Systems/ Signals & Systems / Image Processing	3	0	0	3
4	Professional Elective courses	PEC-IT602A/B/C/D	(Elective-III) Parallel and Distributed Algorithms/ Data Warehousing & Data Mining/Human Computer Interaction/Pattern Recognition	3	0	0	3

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5	Open Elective courses	OEC-IT601A/B	(Open Elective-) Numerical Methods/ Human Resource Development and Organizational Behavior	3	0	0	3
6	Project	PROJ-CS601	Research Methodology	3	0	0	3
Practical							
7	Professional Core Courses	PCC-CS691	Database Management Systems	0	0	4	2
8	Professional Core Courses	PCC-CS692	Computer Networks	0	0	4	2
			Total credits				**22**

Semester VII (Fourth year]							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Elective courses	PEC-CS701A/B/C/D/E	(Elective-IV) Quantum Computing/ Cloud Computing/ Digital Signal Processing/Multi-agent Intelligent Systems/Machine learning	3	0	0	3
2	Professional Elective courses	PEC-CS702A/B/C/D/E	(Elective-V) Neural Networks and Deep Learning/ Soft Computing/ Ad-Hoc and Sensor Networks/Information Theory and Coding/Cyber Security	3	0	0	3
3	Open Elective courses	OEC-CS701A/B/C	(Open Elective-II) Operations Research/Multimedia Systems/Introduction to Philosophical Thoughts	3	0	0	3
4	Humanities &Social	HSM	Project Management and	2	1	0	3

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Maulana Abul Kalam Azad University of Technology, West Bengal
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Syllabus for B. Tech in Computer Science & Engineering
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	Sciences including Management courses	C 701	Entrepreneurship				
5	Project	PROJ-CS781	Project-II	0	0	12	6
			Total credits				**18**

Semester VIII (Fourth year)							
[Summer Industry Internship]							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Elective courses	PEC-CS801A/ B/C/D/E	(Elective-VI) Signals and Networks/Cryptography & Network Security/ Speech and Natural Language Processing/ Web and Internet Technology/Internet of Things	3	0	0	3
2	Open Elective courses	OEC-CS801A/B/ C/D/E	Open Elective-III Big Data Analysis/Cyber Law and Ethics/ Mobile Computing/Robotics/Soft Skill & Interpersonal Communication	3	0	0	3
3	Open Elective courses	OEC-CS802A/B/ C	(Open Elective-IV) E-Commerce and ERP/Micro-electronics and VLSI Design/Economic Policies in India	3	0	0	3
4	Project	PROJ-CS881	Project-III	0	0	12	6
			Total credits				**15**

PG

Syllabus for B.Tech(Electronics & Communication Engineering) Up to Fourth Year

Revised Syllabus of B.Tech ECE (for the students who were admitted in Academic Session 2010-2011)

ECE SECOND YEAR: THIRD SEMESTER

A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	M(CS)301	Numerical Methods	2	1	0	3	2
2	M302	Mathematics-III	3	1	0	4	4
3	EC301	1. Circuit Theory & Networks	3	1	0	4	4
4	EC302	2. Solid State Device	3	0	0	3	3
5	EC303	1. Signals & Systems	3	0	0	3	3
	EC304	2. Analog Electronic Circuits	3	1	0	4	4
6							
		Total of Theory				21	20
B. PRACTICAL							
7	M(CS)391	Nunerical Lab	0	0	2	2	1
8	EC391	Circuit Theory & Network Lab	0	0	3	3	2
9	EC392	Solid State Devices	0	0	3	3	2
10	EC393	1. Signal System Lab	0	0	3	3	2
11	EC394	2. Analog Electronic Circuits Lab	0	0	3	3	2
		Total of Practical				14	9
		Total of Semester				35	29

ECE SECOND YEAR: FOURTH SEMESTER

A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	HU401	Values & Ethics in Profession	3	0	0	3	3
2	PH401	Physics-II	3	1	0	4	4
3	CH401	Basic Environmental Engineering & Elementary Biology	2+1	0	0	3	3
4	EC401	1. EM Theory & Transmission Lines	3	1	0	4	4
5	EC402	2. Digital Electronic & Intrgrated Circuits	3	1	0	4	4
		Total of Theory				18	18
B. PRACTICAL							
6	HU481	Technical Report Writing & Language Lab Practice	0	0	3	3	2
7	PH491	Physics-II Lab	0	0	3	3	2
8	EC491	1. EM Theory & Tx Lines Lab	0	0	3	3	2
9	EC492	2. Digital Electronic & Integrated Circuits Lab	0	0	3	3	2
		Total of Practical				12	8
		Total of Semester				30	26

Syllabus for B.Tech(Electronics & Communication Engineering) Up to Fourth Year

Revised Syllabus of B.Tech ECE (for the students who were admitted in Academic Session 2010-2011)

Third Year - Fifth Semester

A.   THEORY

Sl.No	Paper Code	Theory	L	T	P	Total	Cr. Pts
1	HU-501	Economics for Engineers	3	0	0	3	3
2	EC-501	Analog Communication	3	1	0	4	4
3	EC-502	Microprocessors & Microcontrollers	3	1	0	4	4
4	EC-503	Control System	3	0	0	3	3
5	F. E.- EC 504A EC-504B	Computer Architecture Data structure & C	3	1	0	4	3/4
		Total of Theory				18	18
	B. PRACTICAL						
6	EC-591	Analog Communication*	0	0	3	3	2
7	EC-592	Microprocessors & Microcontrollers*	0	0	3	3	2
8	EC -593	Control System*	0	0	3	3	2
9	F.E. EC-594A EC-594B	Computer Architecture Data structure & C	0	0	3	3	2
		Total of Practical				12	8
		Total of Semester				30	26

Laboratories to have both physical experiments and simulation. Only virtual laboratory is not accepted

Third Year - Sixth Semester

A.   THEORY

Sl.No.	Field	Theory	L	T	P	Total	Cr. Pts
1	HU-601	Principles of Management	2	0	0	2	2
2	EC601	Digital Communications	3	0	0	3	3
3	EC602	Digital Signal Processing	3	0	0	3	3
4	EC 603	Telecommunication System	3	0	0	3	3
5	(No Lab) EC-604A EC-604B	Antenna Theory & Propagation Information Theory & Coding	3	0	0	3	3
6	(With Lab) EC-605A EC-605B EC-605C	Object Oriented Programming (IT) Programming Language (CSE) Electronic Measurement & Instrumentation(EI)	3	0	0	3	3
		Total of Theory				17	17
	B. PRACTICAL						
8	EC691	Digital Communications	0	0	3	3	2
9	EC 692	Digital Signal Processing	0	0	3	3	2
10	F.E. EC-695A EC-695B EC-695C	Object Oriented Programming (IT) Programming Lanuage (CSE) Electronic Measurement & Instrumentation	0	0	3	3	2
11	EC-681	Seminar	0	0	3	3	2
		Total of Practical				12	8
		Total of Semester				29	25

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Proposed

Fourth Year - Seventh Semester

			A. THEORY						
Sl. No.	Field		Theory		Contact Hours/Week				Cr. Pts
			Name of Paper	L	T	P	Total		
1	EC701		Wireless Communication & N/W	3	0	0	3		3
2	EC702		Microelectronics & VLSI Designs	3	0	0	3		3
3	EC703 (With Lab)		A. RF & Microwave Engg. B. Optical Communication & N/W C. Computer Networks D. FPGA & Reconfigurable Computing	3	0	0	3		3
4	EC704 (No Lab)		A. Radar Engg B. Embedded Systems C. Biomedical Instrumentation	3	0	0	3		3
5	F. E. EC705		A. Artificial Intelligence (CSE) B. Robotics (CSE) C. Data Base Management System D. Power Electronics	3	0	0	3		3
			Total of Theory				15		15
	B. PRACTICAL								
			Name of Paper						
6	HU781		Group Discussion	0	0	3	3		2
7	EC792		VLSI Design Lab	0	0	3	3		2
8	EC793		A. RF & Microwave Engg. Lab B. Optical Communication & N/W Lab C. Computer Networks Lab D. FPGA & Reconfigurable Computing lab	0	0	3	3		2
9	F.E EC795		A.Artificial Intelligence Lab(CSE) B.Robotics lab(CSE) C.Data Base Management System Lab (CSE) D.Power Electronics Lab(EE)	0	0	3	3		2
10	EC781		**Industrial training**	4 wks during 6th -7th Sem-break					2
11	EC782		**Project part 1**				3		2
			Total of Practical				15		12
			Total of Semester				30		27

Fourth Year - Eighth Semester

		A. THEORY						
Sl. No.	Field	Paper Name	Contact Hours/Week					Cr. Pts
			L	T	P	Total		
1	HU801A	Organisational Behaviour	2	0	0	2		2
3	EC801 (No Lab)	A. Smart Antenna B. Digital Image Processing C. Satellite Communication & Remote Sensing	3	0	0	3		3
	EC802 (No Lab)	A. Neural N/W & Applications (CSE) B. Material Sc. & Engg (Mat. Sc) C. Renewable Energy (EE) D. Audio & Speech Processing (CSE)	3	0	0	3		3
		Total of Theory				8		8
	B. PRACTICAL							
	EC881	Design Lab / Industrial problem related practical training	0	0	6	6		4
	EC882	Project part-2	0	0	12	12		6
	EC893	Grand viva						3
		Total of Practical				18		13
		Total of Semester				26		21

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Curriculum Structure

2nd Year: 3rd Semester

Sl No.	Field	Theory	L	T	P	Total	Credit Points
A. Theory			Contact Hours/week				
1.	EC301	Electronic Devices	3	0	0	3	3
2.	EC302	Digital System Design	3	0	0	3	3
3.	EC303	Signals and Systems	3	0	0	3	3
4.	EC304	Network Theory	3	0	0	3	3
5.	ES-CS301	Data Structure & Algorithm (ES)	3	0	0	3	3
6.	BS-M301	Probability & Statistics(BS)	3	0	0	3	3
Total Theory						18	18
B. Practical							
7.	EC391	Electronic Devices Lab.	0	0	2	2	1
8.	EC392	Digital System Design Lab.	0	0	2	2	1
9	ES-CS391	Data Structure Lab(ES)	0	0	2	2	1
				Total Practical		6	3
				Total Credits		24	21
C. Non Credit Course							
	MC381	Environmental Science	0	0	2	2	0

2ndYear: 4th Semester

Sl No.	Field	Theory	L	T	P	Total	Credit Points
A. Theory			Contact Hours/week				
1.	EC401	Analog Communication	3	0	0	3	3
2.	EC402	Analog Electronic Circuits	3	0	0	3	3
3.	EC403	Microprocessor &Microcontrollers	3	0	0	3	3
4.	ES-CS401	Design and Analysis of Algorithm(ES)	3	0	0	3	3
5.	BS-M401	Numerical Methods(BS)	2	0	0	2	2
6.	BS-B401	Biology for Engineers	2	1	0	3	3
Total Theory						14	17
B. Practical							
7.	EC491	Analog Communication Lab	0	0	2	2	1
8.	EC492	Analog Electronic Circuits Lab.	0	0	2	2	1
9.	EC493	Microprocessor & Microcontrollers Lab	0	0	2	2	1
10.	BS-M(CS)491	Numerical Methods Lab	0	0	2	2	1
11.	HS-HU481	Soft Skill Development Lab	0	0	2	2	1
Total Practical						10	5
		Total Credits				24	22

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3rd Year: 5th Semester

Sl No.	Field	Theory	L	T	P	Total	Credit Points
A. Theory			Contact Hours/week				
1.	EC501	Electromagnetic Waves	3	0	0	3	3
2.	EC502	Computer Architecture	3	0	0	3	3
3.	EC503	Digital Communication & Stochastic Process	3	1	0	4	3.5
4.	EC504	Digital Signal Processing	3	0	0	3	3
5.	PE-EC505 A/B/C/D	Program Elective I	3	0	0	3	3
6.	OE-EC506 A/B/C	Open Elective I	3	0	0	3	3
Total Theory						19	18.5
B. Practical							
7.	EC591	Electromagnetic Wave Lab	0	0	2	2	1
8.	EC592	Digital Communication Lab.	0	0	2	2	1
9.	EC593	Digital Signal Processing Lab.	0	0	2	2	1
Total Practical						6	3
C Sessional							
10	MC-HU581	Effective Technical Communication	0	0	3	3	0
Total Credits						28	21.5

3rd Year: 6th Semester

Sl No.	Field	Theory	L	T	P	Total	Credit Points
C. Theory			Contact Hours/week				
1.	EC601	Control System & Instrumentation	3	0	0	3	3
2.	EC602	Computer Network	3	0	0	3	3
3.	PE-EC603	Program Elective II	3	0	0	3	3
4.	OE-EC604	Open Elective II	3	0	0	3	3
5.	HS-HU601	Economics for Engineers	3	0	0	3	3
Total Theory						15	15
D. Practical							
6.	EC692	Computer Network Lab.	0	0	2	2	1
7.	EC691	Control System and Instrumentation Lab.	0	0	2	2	1
8.	EC681	Mini Project/ Electronic Design Workshop	0	0	4	4	2
Total Practical						8	4
Total Credits						23	19
9	MC681	Universal Human Values	2	0	0	2	0

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4th Year: 7th Semester

Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
D. Theory							
1.	PE-EC701	Program Elective -3	3	0	0	3	3
2.	PE-EC702	Program Elective -4	3	0	0	3	3
3.	PE-EC703	Program Elective -5	3	0	0	3	3
4.	OE-EC704	Open Elective - 3	3	0	0	3	3
5.	HS-HU701	Principles of Management	2	0	0	2	2
Total Theory						14	14
E. Practical							
6	EC781	Industrial Training	During Semester Break(6th & 7th)				1
7.	EC782	Project Stage – I	0	0	8	8	4
Total Practical						8	5
Total Credits						22	19

4th Year: 8th Semester

Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
E. Theory							
1.	PE-EC801	Program Elective – 6	3	0	0	3	3
2.	PE-EC802	Program Elective - 7	3	0	0	3	3
3.	OE-EC803	Open Elective - 4	3	0	0	3	3
4.	OE-EC804	Open Elective - 5	3	0	0	3	3
Total Theory						12	12
F. Practical							
5.	EC881	Project Stage – II	0	0	15	15	7.5
6.	EC891	Grand Viva					1.5
Total Practical						15	9
Total Contact /Credits						27	21

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Professional Electives

Sl No.	Course Code	Course Title	Hours/week			Credits	Semester
			L	T	P		
1	PE-EC505A	Nano Electronics	3	0	0	3	
2	PE-EC505B	Speech and Audio Processing	3	0	0	3	V
3	PE-EC505C	Power Electronics	3	0	0	3	
4	PE-EC505D	Scientific Computing	3	0	0	3	
5	PE-EC603A	Introduction to MEMS	3	0	0	3	
6	PE-EC603B	Bio-Medical Electronics	3	0	0	3	VI
7	PE-EC603C	CMOS VLSI Design	3	0	0	3	
8	PE-EC603D	Information Theory & Coding	3	0	0	3	
9	PE-EC701A	Microwave Theory and Techniques	3	0	0	3	
10	PE-EC701B	Satellite Communication	3	0	0	3	
11	PE-EC701C	Mobile Communication and Networks	3	0	0	3	
12	PE-EC702A	Adaptive Signal Processing	3	0	0	3	
13	PE-EC702B	Digital Image and Video Processing	3	0	0	3	VII
14	PE-EC702C	Neural Network and Fuzzy Logic Control	3	0	0	3	
15	PE-EC703A	Embedded System	3	0	0	3	
16	PE-EC703B	Wireless Sensor Networks	3	0	0	3	
17	PE-EC703C	Wavelet Transforms	3	0	0	3	
18	PE-EC801A	Antennas and Propagation	3	0	0	3	
19	PE-EC801B	Fibre Optic Communication	3	0	0	3	
20	PE-EC801C	Error Correcting Codes	3	0	0	3	VIII
21	PE-EC802A	Mixed Signal Design	3	0	0	3	
22	PE-EC802B	Industrial Automation and Control	3	0	0	3	
23	PE-EC802C	VLSI Design Automation	3	0	0	3	

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List of Open Elective

Sl No.	Course Code	Course Title	Hours/week			Credits	Semester
			L	T	P		
1	OE-EC506A	Soft Skill and Interpersonal Communication	3	0	0	3	
2	OE-EC506B	Cyber Law & Intellectual Property Rights	3	0	0	3	V
3	OE-EC506C	Human Resource Management	3	0	0	3	
4	OE-EC604A	Electronic Measurements and Measuring Instruments	3	0	0	3	
5	OE-EC604B	Operating System	3	0	0	3	VI
6	OE-EC604C	Object Oriented Programming	3	0	0	3	
7	OE-EC704A	Web Technology	3	0	0	3	
8	OE-EC704B	Optimisation Technique	3	0	0	3	VII
9	OE-EC704C	Entrepreneurship	3	0	0	3	
10	OE-EC803A	Internet of Things(IoT)	3	0	0	3	
11	OE-EC803B	Big Data Analysis	3	0	0	3	
12	OE-EC803C	Cyber Security	3	0	0	3	VIII
13	OE-EC804A	Artificial Intelligence	3	0	0	3	
14	OE-EC804B	Microwave Integrated Circuits	3	0	0	3	
15	OE-EC804C	Organisational Behaviour	3	0	0	3	

Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year

Revised Syllabus of B.Tech EE (for the students who were admitted in Academic Session 2010-2011)

3rd Semester

Theory:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	M (CS) 301	Numerical Methods	2	1	0	3	2
2	M302	Mathematics-III	3	1	0	4	4
3	EC(EE)301	Analog Electronic circuits	3	0	0	3	3
4	EC(EE)302	Digital Electronic circuit	3	0	0	3	3
5	EE-301	Electric Circuit theory	3	1	0	4	4
6	EE-302	Field theory	3	1	0	4	4
						21	20

Practical / Sessional:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	EC(EE)391	Analog & Digital Electronic circuit	0	0	3	3	2
2	M (CS)391	Numerical Methods	0	0	2	2	1
3	EE-391	Electric Circuit Theory	0	0	3	3	2
4	HU-381	TECHNICAL REPORT WRITING & LANGUAGE LABORATORY PRACTICE	0	0	3	3	2
		Total of Practical / Sessional				11	7
TOTAL OF SEMESTER:						32	27

4th Semester

Theory:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	HU-401	Values and Ethics in Profession	3	0	0	3	3
2	PH(EE)-401	Physics-II	3	1	0	4	4
3	ME(EE)411	Thermal Power Engineering	3	0	0	3	3
4	CH-401	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
5	EE-401	Electric Machine-I	3	1	0	4	4
6	EE-402	Electrical & Electronic measurement	3	0	0	3	3
						20	20

Practical / Sessional:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	PH(EE)-491	Physics-II	0	0	3	3	2
2	ME(EE)481	Thermal power Engineering Lab	0	0	3	3	2
3	EE-491	Electric Machine-I	0	0	3	3	2
4	EE-492	Electrical & Electronic measurement	0	0	3	3	2
		Total of Practical / Sessional				12	8
TOTAL OF SEMESTER:						32	28

Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year

Revised Syllabus of B.Tech EE (for the students who were admitted in Academic Session 2010-2011)

5th Semester

Theory:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	HU-501	Economics for Engineers	3	0	0	3	3
2	EE-501	Electric machine-II	3	1	0	4	4
3	EE-502	Power system-I	3	1	0	4	4
4	EE-503	Control system-I	3	1	0	4	4
5	EE-504	A. Data structure & algorithm B. Computer Organization C. Micro Processor & Micro controller	3	0	0	3	3
						18	18

Practical / Sessional:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	EE-591	Electric machine-II	0	0	3	3	2
2	EE-592	Power system-I	0	0	3	3	2
3	EE-593	Control system-I	0	0	3	3	2
4	EE-594	a. Data structure & algorithm b. Computer Organization c. Micro Processor & Microcontroller	0	0	3	3	2
5	EE-581	Seminar	0	0	3	3	2
		Total of Practical / Sessional				15	10
TOTAL OF SEMESTER:						33	28

EE 6th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	HU-601	Principle of Management	2	0	0	2	2
2	EE-601	Control System-II	3	1	0	4	4
3	EE-602	Power System-II	3	1	0	4	4
4	EE-603	Power Electronics	3	1	0	4	4
5	EE-604	a. Software Engineering b. Data Base Management System c. Object Oriented Programming d. Embedded Systems.	3	0	0	3	3
6	EE-605	a. Digital Signal Processing b. Communication Engineering. c. VLSI & Microelectronics	3	0		3	3
						20	20

Practical / Sessional:

Sl. No.	CODE	Paper	Contact period Per week			Total Contact Hrs	Credits
			L	T	P		
1	EE-691	Control System-II	0	0	3	3	2
2	EE-692	Power System-II	0	0	3	3	2
3	EE-693	Power Electronics	0	0	3	3	2
4	EE-694	a. Software Engineering b. Data Base Management System c. Object Oriented Programming d. Embedded Systems	0	0	3	3	2
		Total of Practical / Sessional				12	8
TOTAL OF SEMESTER:						32	28

Industrial training conducted after 6th Semester.

Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year

Revised Syllabus of B.Tech EE (for the students who were admitted in Academic Session 2010-2011)

7th Semester

Theory:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	EE-701	Electric drive	4	0	0	4	4
2	EE-702	Utilization of Electric power	3	1	0	4	4
3	EE-703	A. Power system-III B. Control system-III C. Electric Machine-III	3	0	0	3	3
4	EE-704	A. High voltage Engineering B. Power Plant Engineering C. Power generation and economics D. Renewable & Non conventional Energy	3	0	0	3	3
5	EE-705	A.Computer Network B. AI & Soft Computing C. Digital Communication D. Digital Image Processing	3	0	0	3	3
						17	17

Practical / Sessional:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	EE-781	Seminar on industrial training	0	0	3	3	2
2	EE-791	Electric Drive	0	0	3	3	2
3	EE-792	A.Computer Network B. AI & Soft Computing C.Digital Communication D. Digital Image Processing	0	0	3	3	2
4	EE-782	Electrical system design-I	0	0	3	3	2
5	EE-783	Project-I	0	0	3	3	2
		Total of Practical / Sessional				9	10
TOTAL OF SEMESTER:			18	02	09	29	27

8th Semester

Theory:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	HU-801A	Organizational Behaviour	2	0	0	2	2
2	EE-801	A. HVDC transmission B. Illumination Engineering C. Energy management & audit D. DIGITAL SPEECH SIGNAL PROCESSING	3	0	0	3	3
3	EE-802	A. Power plant instrumentation & Control B. Sensors & Transducers C. Biomedical Instrumentation D. Process control	3	0	0	3	3
		TOTAL				08	08

Practical / Sessional:

Sl. No.	CODE	Paper	Contacts periods Per weeks			Total Contact Hrs	Credits
			L	T	P		
1	EE-881	Project	0	0	12	12	6
2	EE-882	Electrical system Lab-II	0	0	6	6	4
3	EE-883	Grand Viva					3
		Total of Practical / Sessional				18	13
		TOTAL SEMESTER				26	21

Maulana Abul Kalam Azad University of Technology, West Bengal
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Syllabus for B. Tech in Electrical Engineering
(Applicable from the academic session 2018-2019)
3rd Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 301	Electric Circuit Theory	3	1	0	4	4
2	PC-EE 302	Analog Electronics	3	0	0	3	3
3	PC-EE 303	Electromagnetic field theory	3	0	0	3	3
4	ES-ME 301	Engineering Mechanics	3	0	0	3	3
5	BS-M 301	Mathematics-III	3	0	0	3	3
6	BS-EE301	Biology for Engineers	3	0	0	3	3
7	MC-EE 301	Indian Constitution	3	0	0	3	0
		TOTAL OF SEMESTER:				22	19

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 391	Electric Circuit Theory Laboratory	0	0	2	2	1
2	PC-EE 392	Analog Electronics laboratory	0	0	2	2	1
3	PC-CS 391	Numerical Methods laboratory	0	0	2	2	1
		Total of Practical / Sessional				06	3
TOTAL OF SEMESTER:						28	22

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4th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 401	Electric machine-I	3	0	0	3	3
2	PC-EE 402	Digital Electronic	3	0	0	3	3
3	PC-EE 403	Electrical and Electronics Measurement	3	0	0	3	3
4	ES-EE 401	Thermal Power Engineering	3	0	0	3	3
5	HM-EE401	Values and Ethics in profession	3	0	0	3	3
6	MC- EE401	Environmental Science	3	0	0	3	0
		TOTAL OF SEMESTER:				18	15

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 491	Electric Machine-I laboratory	0	0	2	2	1
2	PC-EE 492	Digital Electronics laboratory	0	0	2	2	1
3	PC-EE 493	Electrical and electronic measurement laboratory	0	0	2	2	1
4	ES-ME 491	Thermal Power Engineering laboratory	0		2	2	1
		Total of Practical / Sessional				08	4
TOTAL OF SEMESTER:						26	19

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5th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 501	Electric machine-II	3	0	0	3	3
2	PC-EE 502	Power System-I	3	0	0	3	3
3	PC-EE 503	Control system	3	0	0	3	3
4	PC-EE 504	Power Electronics	3	0	0	3	3
5	PE-EE 501 A/B/C	Elective I	3	0	0	3	3
6	OE 501 A/B/C	Elective II(Open Elective)	3	0	0	3	3
		TOTAL OF SEMESTER:				18	18

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 591	Electric Machine-II laboratory	0	0	2	2	1
2	PC-EE 592	Power system-I laboratory	0	0	2	2	1
3	PC-EE 593	Control system laboratory	0	0	2	2	1
4	PC-EE 594	Power Electronics laboratory	0	0	2	2	1
		Total of Practical / Sessional				08	4
TOTAL OF SEMESTER:						26	22

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6th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 601	Power System-II	3		0	3	3
2	PC-EE-602	Micro processor & micro controller	3	0	0	3	3
3	PE-EE 601A/B/C	Digital control system/HVDC Transmission/Electrical Machine Design	3	0	0	3	3
4	PE-EE 602A/B/C	Electrical And Hybrid Vehicle/ Power Quality And Facts/ Industrial Electrical Systems	3	0	0	3	3
5	OE-EE 601A/B/C	Digital Signal Processing/ Communication Engineering/ VLSI And Micro Electronics	3	0	0	3	3
6	HM-EE-601	Economics For Engineers	3	0	0	3	3
		TOTAL OF SEMESTER:				18	18

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 691	Power system-II laboratory	0	0	2	2	1
2	PC-EE692	Micro processor & microcontroller laboratory	0	0	2	2	1
2	PC-EE 681	Electrical & Electronic design laboratory	1	0	4	5	3
		Total of Practical / Sessional				09	05
TOTAL OF SEMESTER:						27	23

Summer Internship of 3-week duration after 6th semester. Students will be assessed based on submission of report on internship and presentation in a seminar in 7th semester

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7th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 701	Electric Drive	3	0	0	3	3
2	PE-EE 701		3	0	0	3	3
3	OE-701		3	0	0	3	3
4	OE-702		3		0	3	3
5	HM-701		3	0	0	3	3
		TOTAL OF SEMESTER:				15	15

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 791	Electric Drive laboratory	0	0	2	2	1
2	PW-EE 781	Project stage-I	0	0	4	4	2
3	PW-EE782	Seminar	0	0	0	0	1
		Total of Practical / Sessional				06	04
TOTAL OF SEMESTER:						21	19

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8th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 801	Utilization of Electric Power	3	0	0	3	3
2	PE- EE 801		3	0	0	3	3
3	OE-801		3	0	0	3	3
		TOTAL OF SEMESTER:				09	09

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PW-EE 881	Project stage-II	0	0	16	16	8
		Total of Practical / Sessional				16	08
TOTAL OF SEMESTER:						25	17

Syllabus for B.Tech(Information Technology) Up to Fourth Year

Revised Syllabus of B.Tech IT (for the students who were admitted in Academic Session 2010-2011)

IT

Second Year - Third Semester

A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	**HU301**	Values & Ethics in Profession	3	0	0	3	3
2	**PH301**	Physics-2	3	1	0	4	4
3	**CH301**	Basic Environmental Engineering & Elementary Biology;	3	0	0	3	3
4	**CS301**	Analog & Digital Electronics	3	0	0	3	3
5	**CS302**	Data Structure & Algorithm	3	1	0	4	4
6	**CS303**	Computer Organisation	3	1	0	4	4
		Total of Theory				**21**	**21**
B. PRACTICAL							
7	**PH391**	Physics-2	0	0	3	3	2
8	**CS391**	Analog & Digital Electronics	0	0	3	3	2
9	**CS392**	Data Structure & Algorithm	0	0	3	3	2
10	**CS393**	Computer Organisation	0	0	3	3	2
		Total of Practical				**12**	**8**
		Total of Semester				**33**	**29**

Second Year - Fourth Semester

A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	**M(CS)401**	Numerical Methods	2	1	0	3	2
2	**M401**	Mathematics-3	3	1	0	4	4
3	**CS401**	Communication Engg & Coding Theory	**2**	0	0	3	3
4	**CS402**	Formal Language & Automata Theory	3	1	0	4	4
5	**IT401**	Object Oriented Programming & UML	3	1	0	4	4
		Total of Theory				**18**	**17**
B. PRACTICAL							
6	**HU481**	Technical Report Writing & Language Lab Practice	0	0	3	3	2
7	**M(CS)491**	Numerical Methods	0	0	2	2	1
8	**CS491**	Communication Engg & Coding Theory	0	0	3	3	2
9	**CS492**	Software Tools	0	0	3	3	2
10	**IT491**	Object Oriented Programming & UML (IT)	0	0	3	3	2
		Total of Practical				**14**	**9**
		Total of Semester				**32**	**26**

Syllabus for B.Tech(Information Technology) Up to Fourth Year

Revised Syllabus of B.Tech IT (for the students who were admitted in Academic Session 2010-2011)

Third Year - Fifth Semester

Sl.No	Field	Theory	Contact Hours/Week				Cr. Pts
A. THEORY							
			L	T	P	Total	
1	**HU501**	Economics for Engineers	3	0	0	3	3
2	**IT501**	Design & Analysis of Algorithm	3	**1**	0	4	4
3	**IT502**	Computer Architecture	3	**1**	0	4	4
4	**IT503**	Operating System	3	0	0	3	3
5	**F. E.** **IT504A** **IT504B** **IT504C** **IT504D** **IT504E** **IT504F**	Circuit Theory & Network (EE) Data Communication (ECE) Digital Signal Processing (ECE) Operation Research (M) Microprocessors & Microcontrollers(CSE) Programming Practices using C++	3	**0/1**	0	3/4	3/4
		Total of Theory				**17/18**	**17-18**
B. PRACTICAL							
6	**IT591**	Algorithm Lab	0	0	3	3	2
7	**IT592**	Computer Architecture	0	0	3	3	2
8	**IT593**	Operating System Lab	0	0	3	3	2
9	**F.E.** **IT594A** **IT594B** **IT594C** **IT594D** **IT594E** **IT594F**	A. Circuit Theory & Network (EE) B. Data Communication (ECE) C. Digital Signal Processing (ECE) D. Operation Research (M) E. Microprocessors & Microcontrollers(CSE) F. Programming Practices using C++	0	0	3	3	2
		Total of Practical				**12**	**8**
		Total of Semester				**29/30**	**25-26**

Syllabus for B.Tech(Information Technology) Up to Fourth Year

Revised Syllabus of B.Tech IT (for the students who were admitted in Academic Session 2010-2011)

Third Year - Sixth Semester

Sl.No.	Field	Theory	Contact Hours/Week				Cr. Pts
		A. THEORY	L	T	P	Total	
1	**HU601**	Principles of Management	2	0	0	2	2
2	**IT.601**	Data Base Management System	3	0	0	3	3
3	**IT602**	Computer Networking	3	0	0	3	3
4	**IT603**	Software Engg	3	0	0	3	3
5	**P.E.** **IT604A** **IT604B** **IT604C** **IT604D**	Information Theory & Coding Computer Graphics Pattern Recognition ERP	3	0	0	3	3
6	**F. E.** **IT605A** **IT605B** **IT605C** **IT605D**	Discrete Mathematics (M) Human Resource Management (HSS) Compiler Design (CSE) Artificial Intelligence (CSE)	3	0/1	0	3/4	3/4
		Total of Theory				17/18	17-18
	B. PRACTICAL						
7	**IT691**	Data Base Management System	0	0	3	3	2
8	**IT692**	Lab	0	0	3	3	2
9	**IT693**	Computer Networking Software Engineering	0	0	3	3	2
10	**IT681**	**Seminar**	**0**	**0**	**3**	**3**	**2**
		Total of Practical				12	8
		Total of Semester				29/30	25-26

Syllabus for B.Tech(Information Technology) Up to Fourth Year

Revised Syllabus of B.Tech IT (for the students who were admitted in Academic Session 2010-2011)

Fourth Year - Seventh Semester

Sl. No.	Field	Theory	L	T	P	Total	Cr. Pts
	2.1.1.1.1.	A. THEORY					
1	**IT701**	Internet Technology	3	0	0	3	3
2	**IT702**	Multimedia	3	0	0	3	3
3	**IT703**	A. E-Commerce B. Soft Computing C. Image Processing	3	0	0	3	3
4	**IT704**	A. Distributed Operating System B. Cloud Computing C. Data Warehousing & Data Mining D. Sensor Networks E. Mobile Computing	3	0	0	3	3
5	**IT705**	A. Bio Informatics (BI) B. Control System (EE) C. Modelling & Simulation (M) D. Microelectronics & VLSI Design(ECE) E. Advanced Data Communication & Coding	3	0	0	3	3
	Total of Theory					15	15
B. PRACTICAL							
6	**HU781**	Group Discussion	0	0	3	3	2
7	**IT791**	Internet Technology	0	0	3	3	2
8	**IT792**	Multimedia	0	0	3	3	2
9	**IT793**	A. E-Commerce B. Soft Computing C. Image Processing	0	0	3	3	2
10	**IT794**	Industrial training	4 wks during 6th -7th Sem-break				2
11	**IT795**	Project-1				3	2
	Total of Practical					15	12
	Total of Semester					30	27

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Syllabus for B.Tech(Information Technology) Up to Fourth Year

Revised Syllabus of B.Tech IT (for the students who were admitted in Academic Session 2010-2011)

Fourth Year - Eighth Semester

Sl. No.	Field	Theory	L	T	P	Total	Cr. Pts
		2.1.1.1.2. A. THEORY					
			L	T	P	Total	
1	**HU801A** **HU801B**	A. Organisational Behaviour B. Project Management	2	0	0	2	2
2	**IT801**	A. Advanced Computer Architecture B. Parallel Computing C. Natural Language Processing D. Cryptography & Network Security)	3	0	0	3	3
3	**IT802**	A. Technology Management (HSS) B. Cyber Law & Security Policy (HSS) C. Optical Networking (ECE) D. Low Power Circuits & Systems (ECE) E. Business Analytics(CSE) F. Robotics(EE & ME	3	0	0	3	3
		Total of Theory				8	8
		2.1.1.1.3. B. PRACTICAL					
4	**IT891**	Design Lab / Industrial problem related practical training	0	0	6	6	4
5	**IT892**	Project-2	0	0	12	12	6
6	**IT893**	Grand Viva					3
		Total of Practical				18	13
		Total of Semester				26	21

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Maulana Abul Kalam Azad University of Technology, West Bengal
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Curriculum Structure

Semester III (Second year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Engineering Science Course	ESC 301	Analog and Digital Electronics	3	0	0	3
2	Professional Core Courses	PCC-CS301	Data Structure & Algorithms	3	0	0	3
3	Professional Core Courses	PCC-CS302	Computer Organisation	3	0	0	3
4	Basic Science course	BSC 301	Mathematics-III (Differential Calculus)	2	0	0	2
5	Humanities & Social Sciences including Management courses	HSMC 301	Economics for Engineers (Humanities-II)	3	0	0	3
Practical							
6	Professional Core Courses	PCC-CS393	IT Workshop (Sci Lab/MATLAB/Python/R)	0	0	4	2
7	Engineering Science Course	ESC 391	Analog and Digital Electronics	0	0	4	2
8	Professional Core Courses	PCC-CS391	Data Structure & Algorithms	0	0	4	2
9	Professional Core Courses	PCC-CS392	Computer Organisation	0	0	4	2
				Total credits			**22**

Semester IV (Second year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Professional Core Courses	PCC-CS401	Discrete Mathematics	3	1	0	4
2	Professional Core Courses	PCC-CS 402	Computer Architecture	3	0	0	3
3	Professional Core Courses	PCC-CS403	Formal Language & Automata Theory	3	0	0	3

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4	Professional Core Courses	PCC-CS404	Design & Analysis of Algorithms	3	0	0	3
5	Basic Science courses	BSC 401	Biology	2	1	0	3
6	Mandatory Courses	MC401	Environmental Sciences	1	-	-	0
Practical							
7	Engineering Science Course	PCC-CS 492	Computer Architecture	0	0	4	2
8	Professional Core Courses	PCC-CS494	Design & Analysis of Algorithms	0	0	4	2
						Total credits	**20**

Semester V (Third year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Engineering Science Course	ESC501	Software Engineering	3	0	0	3
2	Professional Core Courses	PCC-CS501	Compiler Design	3	0	0	3
3	Professional Core Courses	PCC-CS502	Operating Systems	3	0	0	3
4	Professional Core Courses	PCC-CS503	Object Oriented Programming	3	0	0	3
5	Humanities &Social Sciences including Management courses	HSMC-501	Introduction to Industrial Management (Humanities III)	3	0	0	3
6	Professional Elective	PEC-IT 501A/B/C/D	(Elective-I) Theory of	3	0	0	3

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	courses		Computation/Artificial Intelligence/ Advanced Computer Architecture/ Computer Graphics				
7	Mandat ory Courses	MC- CS501	Constitution of India/ Essence of Indian Knowledge Tradition	-	-	-	0
Practical							
8	Professional Core Courses	ESC-591	Software Engineering		0	4	2
9	Professional Core Courses	PCC-CS592	Operating Systems		0	4	2
10	Professional Core Courses	PCC-CS593	Object Oriented Programming		0	4	2
			Total credits				**24**

Semester VI (Third year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Core Courses	PCC-CS601	Database Management Systems	3	0	0	3
2	Professional Core Courses	PCC-CS602	Computer Networks	3	0	0	3
3	Professional Elective courses	PEC-IT601A/B/ C/D	(Elective-II) Advanced Algorithms/ Distributed Systems/ Signals & Systems / Image Processing	3	0	0	3
4	Professional Elective courses	PEC-IT602A/B/ C/D	(Elective-III) Parallel and Distributed Algorithms/ Data Warehousing & Data Mining/Human Computer Interaction/Pattern	3	0	0	3

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			Recognition				
5	Open Elective courses	OEC-IT601A/B	(Open Elective-) Numerical Methods/ Human Resource Development and Organizational Behavior	3	0	0	3
6	Project	PROJ-CS601	Research Methodology	3	0	0	3
Practical							
7	Professional Core Courses	PCC-CS691	Database Management Systems	0	0	4	2
8	Professional Core Courses	PCC-CS692	Computer Networks	0	0	4	2
			Total credits				**22**

Semester VII (Fourth year)

Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
1	Professional Elective courses	PEC-IT701A/B/C/D	(Elective-IV) Internet Technology/Quantum Computing/ Cloud Computing/Machine learning	3	0	0	3
2	Professional Elective courses	PEC-IT702A/B/C/D/E/F	(Elective-V) Multimedia Technology/Neural Networks and Deep Learning/Soft Computing/ Ad-Hoc and Sensor Networks/Information Theory and Coding/Cyber Security	3	0	0	3
3	Open Elective courses	OEC-IT701A/B/C	(Open Elective-II) Operations Research/Introduction to Philosophical Thoughts/ Soft Skill & Interpersonal Communication	3	0	0	3
4	Humanities &Social Sciences including	HSMC 701	Project Management and Entrepreneurship	2	1	0	3

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	Management courses						
5	Project	PROJ-IT781	Project-II	0	0	12	6
			Total credits				**18**

Semester VIII (Fourth year)
[Summer Industry Internship]

Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	**T**	**P**	
1	Professional Elective courses	PEC-IT801A/B/C/D/E	(Elective-VI) Signals and Networks/Cryptography & Network Security/ Speech and Natural Language Processing/ /Internet of Things/ Remote Sensing and GIS	3	0	0	3
2	Open Elective courses	OEC-IT801A/B/C/D/E	Open Elective-III Big Data Analysis/Cyber Law and Ethics/ Mobile Computing/Bioinformatics/ Robotics	3	0	0	3
3	Open Elective courses	OEC-IT802A/B/C	(Open Elective-IV) E-Commerce and ERP/Micro-electronics and VLSI Design/Economic Policies in India	3	0	0	3
4	Project	PROJ-CS881	Project-III	0	0	12	6
			Total credits				**15**

MASTER OF BUSINESS ADMINISTRATION(MBA) Revised & Final Syllabus for the Batch starting from the Academic Year 2008-2009

<u>First Semester: 8 Compulsory Courses</u>

Code	Course Name	No. of Credits	Contact Hours	Marks
MB 101	Business Economics I	4	40	100
MB 102	Business Communication	4	40	100
MB 103	Management Information Systems I	4	40	100
MB 104	Organizational Behaviour I	4	40	100
MB 105	Quantitative Methods I	4	40	100
MB 106	Fundamentals of Accounting	4	40	100
MB 107	ISS & VA*	4	40	100
MB 108	Business Laws	4	40	100
	Total	32	320	800

- **ISS – Indian Social Structure; VA – Values & Ethics in business**

<u>Second Semester: 8 Compulsory Courses</u>

Code	Course Name	No. of Credits	Contact Hours	Marks
MB 201	Business Economics II	4	40	100
MB 202	Organizational Behaviour II	4	40	100
MB 203	Quantitative Methods II	4	40	100
MB 204	Production & Operations Management	4	40	100
MB 205	Management Information Systems II	4	40	100
MB 206	Human Resource Management	4	40	100
MB 207	Financial Management	4	40	100
MB 208	Marketing Management	4	40	100
	Total	32	320	800

MASTER OF BUSINESS ADMINISTRATION(MBA) Revised & Final Syllabus for the Batch starting from the Academic Year 2008-2009

Third Semester: 2 Compulsory, 4 Specialization Courses and Project Work

Code	Course Name	No. of Credits	Contact Hours	Marks
MB 301	Management Accounting	4	40	100
MB 302	Operations Research	4	40	100
MB 303	Project Work & Viva Voce	8	-	100
Specialization	Four courses – three from one specialization and one from another specialization	16	160	400
	Total	32	240	700

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Specialization:

Code	Course Name	Code	Course Name
MM 301	SALES & DISTRIBUTION MANAGEMENT	SM 301	DATABASE MANAGEMENT
MM 302	ADVERTISING & SALES PROMOTION	SM 302	SYSTEM ANALYSIS & DESIGN
MM 303	MARKETING RESEARCH	SM 303	COMPUTER AIDED MANAGEMENT
FM 301	CORPORATE TAXATION & TAX PLANNING	HR 301	EMPLOYMENT & COMPENSATION ADMINISTRATION
FM 302	CORPORATE FINANCE	HR 302	HUMAN RESOURCE PLANNING
FM 303	SECURITY ANALYSIS & PORTFOLIO MANAGEMENT	HR 303	LABOUR LAWS
HSA301	CONCEPT OF COMMUNITY HEALTH	SD 301	Business Environment and Sustainable Development
HSA302	EPIDEMIOLOGY & ANALYSIS OF HEALTHCARE INFORMATION DATA	SD 302	System Approach to Sustainable Development
HSA303	HEALTH POLICY & NATIONAL HEALTH PROGRAMME	SD 303	Sustainable Development in the context of Human Development
SHM 301	Shipping Practice	PLM 301-	International Transport Systems
SHM 302	Commercial & Shipping Law	PLM 302	– Port / Shipping / Labour Laws
SHM 303	Shipping Economics & e-Business	PLM 303	– Port Operation Management

MASTER OF BUSINESS ADMINISTRATION(MBA) Revised & Final Syllabus for the Batch starting from the Academic Year 2008-2009
Fourth Semester: 2 Compulsory, 4 Specialization Courses and Project Work

Code	Course Name	No. of Credits	Contact Hours	Marks
MB 401	Project Management & Entrepreneurship Development	4	40	100
MB 402	Strategic Management	4	40	100
MB 403	Comprehensive Viva Voce	8	-	100
Specialization	Four courses – three from one specialization and one from another specialization	16	160	400
	Total	32	240	700

Specialization:

Code	Course Name	Code	Course Name
MM 404	INTERNATIONAL MARKETING	SM 404	SOFTWARE MANAGEMENT
MM 405	SERVICE MARKETING	SM 405	E - BUSINESS
MM 406	CONSUMER BEHAVIOUR	SM 406	FUNDAMENTALS OF NETWORKING
FM 404	FINANCIAL INSTITUTES AND MARKETS.	HR 404	INDUSTRIAL RELATIONS
FM 405	INTERNATIONAL FINANCE	HR 405	ORGANIZATIONAL DEVELOPMENT
FM 406	DERIVATIVES AND RISK MANEGEMENT	HR 406	HUMAN RESOURCE DEVELOPMENT
HSA404	LAW	SD 404	Sustainable livelihood for sustainable development
HSA405	PLANNING, ORGANIZING & MANAGEMENT OF HEALTH SERVICE	SD 405	Agribusiness for sustainable development
HSA406	LOGISTICS MANAGEMENT IN HEALTH CARE UNITS & STORAGE & DISTRIBUTION	SD 406	Participatory approaches, research methods for sustainable development
SHM 401	Ship Operation Management	PLM 401	Commercial Shipping
SHM 402 –	Maritime Financial Management	PLM 402	Cargo Handling Systems Management
SHM 403 –	Maritime HR Management	PLM 403	Port Modernization & Traffic Forecasting

- ❖ This MBA curriculum will be applicable from the academic year 2018 – 19.
- ❖ All rules and regulations regarding admission, examination, registration, migration and others shall be according to MAKAUT norms.

CURRICULUM

Core Courses (Six / Semester)

Semester – I

MB – 101	Managerial Economics (Micro)
MB – 102	Organizational Behaviour
MB – 103	Business Communication
MB – 104	Legal and Business Environment(Micro and Macro)
MB – 105	Indian Ethos and Business Ethics
MB – 106	Quantitative Techniques

Semester – II

MB – 201	Indian Economy and Policy
MB – 202	Financial Reporting,Statements and Analysis
MB – 203	Marketing Management
MB – 204	Operations Management
MB – 205	Management Information System
MB – 206	Human Resource Management

Semester - III
Core Papers:

MB – 301	Entrepreneurship and Project Management
MB – 302	Corporate Strategy

Elective Papers: Two from any one Functional Area (Major) and two from a different Functional Area (Minor)

FM/ MM/HR/OM/BA/ MIS/ HCM– 301
FM/ MM/HR/OM/BA/ MIS/ HCM – 302
FM/ MM/HR/OM/BA/ MIS/ HCM – 303
FM/ MM/HR/OM/BA/ MIS/ HCM – 304

MB – 303   Internship Project and Viva Voce

Semester – IV
Elective Papers (Four from Major Functional Area and Two from Minor Functional area) **
FM/ MM/HR/OM/BA/ MIS/ HCM – 401

FM/ MM/HR/OM/BA/ MIS/ HCM – 402
FM/ MM/HR/OM/BA/ MIS/ HCM – 403
FM/ MM/HR/OM/BA/ MIS/ HCM – 404
FM/ MM/HR/OM/BA/ MIS/ HCM – 405
FM/ MM/HR/OM/BA/ MIS/ HCM – 406

**The Major and Minor Functional areas will be same as chosen in the 3rd Semester.

Elective Papers for Third Semester

Functional Specialization (3rd Semester)

MARKETING		OPERATIONS	
CODE	COURSE NAME	CODE	COURSE NAME
MM 301	B2B MARKETING	OM 301	SUPPLY CHAIN & LOGISTICS MANAGEMENT
MM 302	DIGITAL & SOCIAL MEDIA MARKETING	OM 302	OPERATIONS STRATEGY
MM 303	IMC/ PROMOTION STRATEGY	OM 303	QUALITY TOOLKIT FOR MANAGERS
MM 304	MARKETING RESEARCH	OM 304	PRICING & REVENUE MANAGEMENT

FINANCE		HUMAN RESOURCE	
CODE	COURSE NAME	CODE	COURSE NAME
FM 301	TAXATION	HR 301	TEAM DYNAMICS AT WORK
FM 302	PROJECT APPRAISAL & FINANCE	HR 302	HR METRICS AND ANALYTICS
FM 303	BEHAVIORAL FINANCE	HR 303	CROSS CULTURAL MANAGEMENT
FM 304	CORPORATE FINANCE	HR 304	ORGANIZATIONAL DESIGN

MIS		BUSINESS ANALYTICS	
MIS 301	DATA MINING FOR BUSINESS DECISIONS	BA 301	DATA MINING
MIS 302	E-COMMERCE & DIGITAL MARKETS	BA 302	MARKETING ANALYTICS
MIS 303	MANAGING SOFTWAREPROJECTS	BA303	BUSINESS FORECASTING
MIS 304	DATA SCIENCE USING R	BA 304	DATA SCIENCE USING R