

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
LIST OF MOOCs EQUIVALENT OF COURSES OF CURRICULUM FOR CREDIT TRANSFER

Classroom Equivalent Online Courses offered for B.Tech. CSE and IT Courses
from 2nd year to 4th year

Semester III (Second year) Curriculum
Branch/Course: Computer Science Engineering/ Information
Technology

Course Title(Theory)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provided by	Durat ion (Cred it)	Cre dit	Name of University/Inst itution
Values and Ethics in Profession	3	Ethics in Engineering Practice	NPTEL	8 weeks	3	IIT Kharagpur
Environmental Sciences		Environmental Studies: A Global Perspective	Edx	6 weeks	3	Curtin University
		Introduction to Environmental and Science – Fundamental and Sustainability	NPTEL	12 weeks	4	IIT Kharagpur
Biology	2	Introduction to Biology: The Secret of Life	Edx	12 weeks	4	MIT
Analog Electronic Circuits	3	Analog Electronic Circuits	NPTEL	12 weeks	4	IIT Delhi
Digital Electronics	3	Digital Electronics	Courseera	8 weeks	3	UniversitatA utònoma de Barcelona
Data structure & Algorithms	3	Programming, Data Structures And Algorithms Using Python	NPTEL	8 weeks	3	CMI
		Data Structure	Edx	6 weeks	3	UC San Diego X

Semester IV (Second year] Curriculum
Branch/Course: Computer Science Engineering/ Information Technology

Course Title(Theory)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provided by	Duration	Credit	Name of University/Institution
Numerical Methods	2	Numerical Methods	NPTEL	8 weeks	3	IIT Roorkee
Formal Language & Automata Theory	3	Automata Theory	Stanford Edx	6 weeks	3	Stanford University
Computer Organization & Architecture	3	Computer Organization and Architecture: A Pedagogical Aspect	NPTEL	6 weeks	3	IIT Guwahati
		Computer Architecture	NPTEL	12 weeks	4	IIT Delhi

Semester V (Third year] Curriculum
Branch/Course: Computer Science Engineering/ Information Technology

Course Title(Theory)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provided by	Duration	Credit	Name of University/Institution
Economics for Engineers		Engineering Econometrics	NPTEL	12 weeks	4	IIT Kanpur
		Econometrics : Methods and Application	Courseera	7 weeks	3	Erasmus University Rotterdam
Design & Analysis of Algorithms	3	Design and Analysis of Algorithms	NPTEL	8 weeks	3	CMI
		Algorithm Design and Analysis	edx	4 weeks	2	University of Pennsylvania
Microprocessors & Microcontrollers	4	Microprocessors&Micro controllers	NPTEL	12 weeks	4	IIT Kharagpur
Discrete Mathematics	4	Discrete Mathematics	NPTEL	12 weeks	4	IIT Ropar
Circuit Theory & Network	3	Circuits and Systems	Edx	5 weeks	2	Massachusetts Institute of Technology
Data Communication	3	Data Communication and Network Services	Courseera	4 weeks	2	Cisco
Digital Signal Processing	3	Digital Signal Processing/	Courseera	10 weeks	4	EcolePolytechnic
		Digital Signal Processing	NPTEL	8 weeks	3	IIT Kharagpur
Object Oriented Programming	2	Object Oriented Programming in Java	Courseera	6 weeks	3	University of California

Semester VI (Third year] Curriculum
Branch/Course: Computer Science Engineering/ Information Technology

Course Title(Theory)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provided by	Duration	Credit	Name of University/Institution
Principles of Management	3	Management in Engineering	Edx	8 weeks	3	MIT
Database Management System	3	Database Management System	NPTEL	8 weeks	3	IIT Kharagpur
Computer Networks	3	Computer Networks and Internet Protocol/	NPTEL	12 weeks	4	IIT Kharagpur
		Computer Networks	Udacity	12 weeks	4	Georgia Tech.
Operating Systems	3	Introduction to Operating Systems	Udacity	8 weeks	3	Georgia Institute of Technology
Information Theory Coding	3	Information Theory	Courseera	15 weeks	4	University of Hongkong
		Information Theory Coding and Cryptography	NPTEL	12 weeks	4	IIT Delhi
Computer Graphics	3	Computer Graphics	Edx	6 weeks	3	University of San Diego
Operations Research	3	Introduction to Operations Research	NPTEL	8 weeks	3	IIT Madras
Human Resource Management	3	Human Resource Development	NPTEL	12 weeks	4	IIT Kharagpur
Multimedia	3	Introduction to Multimedia System and Processing	NPTEL	12 weeks	4	IIT Kharagpur

Semester VII (Fourth year] Curriculum
Branch/Course: Computer Science Engineering/ Information Technology

Course Title(Theo ry)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provide d by	Duration	Credi t	Name of University/Insti tution
Software Engineering	3	Software Engineering	NPTEL	12 weeks	4	IIT Kharagpur
		Software Engineering	Udacity	12 weeks	4	Georgia Inst of Tech
Compiler Design	3	Compiler Design	Coursee ra	11 weeks	4	Stanford University
Pattern Recognition	3	Pattern Recognition and Application	NPTEL	12 weeks	4	IIT Kharagpur
Soft Computing	3	Soft Computing	NPTEL	8 weeks	3	IIT Kharagpur
Artificial Intelligence	3	Artificial Intelligence	Edx	12 weeks	4	University of California
		Artificial Intelligence: Search Methods for Problem Solving	NPTEL	12 weeks	4	IIT Madras
Digital Image Processing	3	Fundamentals of Digital Image and Video Processing	Coursee ra	12 weeks	4	NorthWestern University
		Digital Image Processing	NPTEL	14 weeks	4	IIT Kharagpur
Cloud Computing	3	Cloud Computing	NPTEL	8 weeks	3	IIT Kharagpur
Data Mining	3	Data Mining	NPTEL	8 weeks	3	IIT Kharagpur
		Data Mining Specialisatio n	Coursee ra	12 weeks	4	University of Illinois
Sensor Networks	3	Wireless Adhoc and Sensor Networks	NPTEL	8 weeks	3	IIT Kharagpur
Mobile Computing	3	Mobile Computing	NPTEL	12 weeks	4	IIT Delhi
Internet Technology	3	Internet Technology	NPTEL	12 weeks	4	IIT Kharagpur
Microelectron ics & VLSI Design	3	VLSI Physical Design	NPTEL	12 weeks	4	IIT Kharagpur
Control System	3	Control System	NPTEL	12 weeks	4	IIT Madras

Semester VIII (Fourth year] Curriculum
Branch/Course: Computer Science Engineering/ InformationTechnology

Course Title(Theory)	Credit (as in syllabus)	MOOCs Equivalent (Theory)	Provided by	Duration	Credit	Name of University/Insti- tution
Organisational Behaviour	3	Organisational Behaviour	Edx	7 weeks	3	University of British Columbia
Project management	3	Project Management for Managers	IIT Roorkee	12 weeks	4	IIT Roorkee
Computer Architecture	3	Computer Architecture	Courseera	11 weeks	4	Princeton University
Natural Language Processing	3	Natural Language Processing	Udacity	12 weeks	4	IBM and Amazon
		Natural Language Processing	NPTEL	12 weeks	4	IIT Kharagpur
Cryptography and Network Security	3	Cryptography and Network Security	NPTEL	12 weeks	4	IIT Kharagpur
Business Analytics	3	Business Analytics & Data Mining Modeling Using R	NPTEL	4 weeks	2	IIT Roorkee
Cyber Law and Security Policy	3	International Cyber Conflicts	Courseera	5 weeks	2	State University of New York
Low Power Circuits and Systems	3	Low Power VLSI Circuits and Systems	NPTEL	8 weeks	3	IIT Kharagpur
E-Commerce	3	Fundamentals of Digital Marketing, Social Media, and E-Commerce	Edx	6 weeks	3	Wharton
Robotics	3	Robotics	Edx	12 weeks	4	University of Pennsylvania