

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
List of Online Courses for 2nd Year, 3rd Year and 4th Year B.Tech Courses of IT and CSE for Additional Credit Earning

2 nd Year					
Module	Basket of Courses	Duration	Credit	Offered by	Status
Programming Skills	Programming in Java	12 Weeks	4	NPTEL	Active
	AP Computer Science A: Java Programming Polymorphism and Advanced Data Structures	6 weeks	3	edX	Active
	Build your very first iOS app	8 weeks	3	edX	Active
	Gameplay Programming for Video Game Designers	5 weeks	3	edX	Active
	An Introduction To Programming Through C++	12weeks	4	NPTEL	Active
	Introduction to Computer Science & Programming Specialization	8 weeks	3	Courseera	Active
	Introduction to scripting in Python	8 weeks	3	Courseera	Active
Data Structure & Algorithm					
	Foundation of Data Structures	6 weeks	3	edX	Active
Automata Theory & Compiler Design		8 weeks	3	NPTEL	Active
	Theory of Computation				
Digital Electronics d	Switching Circuits and Logic Design	12 weeks	4	NPTEL	Active
	Synthesis of Digital Systems	12 weeks	4	NPTEL	Active
Statistical / Mathematical s Methods	Bayesian Statistics:Techniques and Models	5 weeks	3	Courseera	Active
	Mathematical Modelling Basics	9 weeks	4	edX	Active
Multimedia & Web Applications	Animation and CGI Motion	12 weeks	4	edX	Active
	Web Application Development	6 weeks	3	Courseera	Active
	Web Design for Everybody Specialization	12 weeks	4	Courseera	Active

Networking	The Bits and Bytes of Computer Networking	4 weeks	2	Coursera	Active
	Introduction to Cisco Networking	4 weeks	2	Coursera	Active
Data Science	Introduction to Computing for Data Analysis with Python	6 weeks	3	edX	Active
	Introduction to data science in python	3 weeks	1	Coursera	Active
	What is Data Science?	3 weeks	1	Coursera	Active
	Introduction to Big Data	3 weeks	1	Coursera	Active
	The Data Science Tool Box	2 weeks	1	Coursera	Active
	Data Driven Decision Making	2 weeks	1	Coursera	Active
	A Crash Course in Data Science	1 weeks	1	Coursera	Active
Cyber Security	Digital Security and Human Rights	3 weeks	2	edX	Active
Other	Data Analysis and Presentation Skills : the PWC approach Specialization	12 weeks	4	Coursera	Active
	Introduction to Design Thinking	5 weeks	3	edx	Active
	Introduction to Automata, Languages and Computation	12 Weeks	4	NPTEL	Archived
	Introduction to Soft Computing	8 Weeks	3	NPTEL	Archived
	Introduction to Data Modelling	4 weeks	2	edX	Archived
	Java Fundamentals for Android Development	6 weeks	3	edX	Archived

3rd Year					
Module	Basket of Courses	Duration	Credit	Offered by	Status
Computer Organization & Architecture	Hardware modeling using Verilog	8 weeks	3	NPTEL	Active
	Introduction to parallel Programming in Open MP	4 weeks	2	NPTEL	Active
DBMS	Using Databases with Python	5 weeks	3	Courseera	Active
	Data Base Management System	8 weeks	3	NPTEL	Active
Mathematics	Discrete Mathematics	12 Weeks	4	NPTEL	Active
	Modern Algebra	8 weeks	3	NPTEL	Active
Operating System	Operating System Fundamentals	12 Weeks	4	NPTEL	Active
	Introduction to Operating Systems	8 weeks	3	NPTEL	Active
Data Structure & Algorithm	Programming, Data Structures and Algorithms using Python	8 weeks	3	NPTEL	Active
	Design and Analysis of Algorithms	8 weeks	3	NPTEL	Active
	Algorithm Specialization	16 weeks	4	Courseera	Active
	Divide and conquer ,Sorting, Searching and Randomized Algorithm	4weeks	2	Courseera	Active
Cloud Computing	Cloud Computing	8 weeks	3	NPTEL	Active
	Cloud Computing	5 weeks	3	Courseera	Active
	Architecting with Google cloud platform Specialization				
Cyber Security	Bitcoin and Cryptocurrency Technologies	11 weeks	4	Courseera	Active
	Ethical Hacking	8 weeks	3	Udemy	Active
	Ethical Hacking	12 Weeks	4	NPTEL	Active
	Cybersecurity and its 10 domains	7 weeks	3	Courseera	Active
Networking	Introduction to Internet of Things	12 Weeks	4	NPTEL	Active
	Introduction to the Internet of Things	6 weeks	3	edX	Active
	IoT Programming and Big Data	5 weeks	3	edX	Active
	Data Communications and Network Services	4 weeks	2	Courseera	Active
UML Designing	UML Class Diagrams for Software Engineering	3 weeks	2	edX	Active

Software Engineering	Formal Software Verification	8 weeks	3	edX	Active	
	Software testing	12 weeks	4	NPTEL	Active	
	Software Project Management	12 weeks	4	NPTEL	Active	
	Software Engineering	12 weeks	4	NPTEL	Active	
	Software Product Management Specialization	16 weeks	4	Coursera	Active	
Industrial Management	Entrepreneurship in Emerging Economies	6 weeks	3	edX	Active	
	Patent Drafting for Beginners	4 weeks	2	NPTEL	Active	
	Patent Law for Engineers and Scientists	12 weeks	4	NPTEL	Active	
Data Science	Introduction to Computational Thinking and Data Science	10 weeks	4	edX	Active	
	Data Mining: Theories and Algorithms for Big Data	14 weeks	4	edX	Active	
	Big Data Fundamentals	10 weeks	4	edX	Active	
	Big Data Analytics	10 weeks	4	edX	Active	
	Text Mining in Python	4 weeks	2	Coursera	Active	
	Foundations of Data Science: Computational Thinking with Python	5 weeks	3	edX	Active	
	Scalable Data Science	8 weeks	3	NPTEL	Active	
	Data Science for Engineers	8 weeks	3	NPTEL	Active	
	Python for Data Science	4 weeks	2	NPTEL	Active	
	How to win a Datascience Competition : Learn from Top Kagglers	5 weeks	2	Coursera	Active	
Multimedia & Web Applications	Virtual Reality	4 weeks	2	Coursera	Active	

AI & Machine Learning	Pattern Recognition	12 weeks	4	NPTEL	Active
	Principles of Machine Learning	6 weeks	3	edX	Active
	Machine Learning	12 weeks	4	NPTEL	Active
	AI For Everyone	4 weeks	2	Courseera	Active
	Robotics :Aerial Robotics	6 weeks	3	Courseera	Active
	Deep learning in Computer Vision	5weeks	2	Courseera	Active
	Deep Learning – Part 1	12 weeks	4	NPTEL	Active
	Artificial Intelligence Search Methods For Problem Solving	12 weeks	4	NPTEL	Active
	Machine Learning for Engineering and Science Applications	12 weeks	4	NPTEL	Active
	Computer Vision	12 weeks	4	NPTEL	Active
	Introduction to Machine Learning	12 weeks	4	NPTEL	Active
	Introduction to Machine Learning	8 weeks	3	NPTEL	Active
Programming Skills	Functional Programming in Scala	6 weeks	3	Courseera	Active
	Using python to access web data	6 weeks	3	Courseera	Active
	Python Data Structures	2weeks	1	Courseera	Active
	Programming in C++	8 weeks	3	NPTEL	Active
	Object oriented analysis and design	8 weeks	3	NPTEL	Active
	Python 3 Programming Specialization	8 weeks	3	Couseera	Active
Natural Language Processing	Natural Language Processing	5 weeks	3	Courseera	Active
	Applied Natural Language Processing	12 weeks	4	NPTEL	Active
	Natural Language Processing	12 weeks	4	NPTEL	Active
Other	Embedded Systems	12 weeks	4	NPTEL	Archived
	Design and Analysis of Experiments	12 weeks	4	NPTEL	Archived
	Cryptography and Network Security	12	4	NPTEL	Archived
	Matlab Programming for Numerical Computation	8 weeks	3	NPTEL	Archived
	Computer Architecture and Organization	12 Weeks	4	NPTEL	Archived
	Computer Organization and Architecture: A Pedagogical Aspect	12 weeks	4	NPTEL	Archived
	Parallel Algorithms	12 weeks	4	NPTEL	Archived
	Cryptography and Network Security	12 Weeks	4	NPTEL	Archived
	Introduction to Industry 4.0 and Industrial Internet of Things	12 Weeks	4	NPTEL	Archived
	A System View of Communications: From	6 weeks	3	edX	Archived

Signals to Packets (Part 2)				
Software Testing Fundamentals	8 weeks	3	edX	Archived
Software Testing Management	8 weeks	3	edX	Archived
Quality Design and Control	12 weeks	4	NPTEL	Archived
Six Sigma	12 weeks	4	NPTEL	Archived
AI:Knowledge Representation and Reasoning	12 weeks	4	NPTEL	Archived
Neural Network	14 weeks	4	Courseera	Archived
Teamwork and collaboration	3 weeks	2	edx	Archived

4th Year					
Computer Organization & Architecture	Advanced Computer Architecture	8 weeks	3	NPTEL	Active
Networking	Demystifying Networking	4weeks	2	NPTEL	Active
Cyber Security	Blockchain Architecture Design and Use Cases	12 weeks	4	NPTEL	Active
	Cyber security and Privacy in the IoT	5 weeks	3	edX	Active
	IoT System Design: Software and Hardware Integration	4 weeks	2	edX	Active
	Blockchain and Fin Tech: Basics, Applications, and Limitations	6 weeks	3	edX	Active
	Block Chain Specialization	8 weeks	3	Course era	Active
	A System View of Communications: From Signals to Packets (Part 3)	5 weeks	3	edX	Active
	Internet of Things	12 weeks	4	NPTEL	Active
Mathematics	Computational Thinking for Modeling and Simulation	6 weeks	3	edX	Active
	Mathematics For Machine Learning: Multivariate Calculas	6 weeks	3	Courseera	Active

Industrial Management	Becoming an Entrepreneur	6 weeks	3	edX	Active
	Marketing Fundamentals	4 weeks	2	edX	Active
Data Science	IBM Data Science Professional Certificate	8 weeks	3	Couseera	Active
	Data Science with Python	10 weeks	4	edX	Active
AI & Machine Learning	Artificial Intelligence	12 weeks	4	NPTEL	Active
	Foundations of Data Science: Prediction and Machine Learning	6 weeks	3	edX	Active
	Robotics: Vision Intelligence & Machine Learning	12 weeks	4	edX	Active
	Deep Learning Specialization	12 weeks	4	Couseera	Active
	Machine learning with Tensor Flow on Google Cloud Platform Specialization	4 weeks	1	Couseera	Active
	Applied Machine Learning with Python	3weeks	1	Couseera	Active
	Convolution Neural Network	4weeks	1	Couseera	Active
	Sequence Model	2weeks	1	Couseera	Active
	Deep Learning	6 weeks	3	edX	Active
	Deep Learning	12 weeks	4	NPTEL	Active
	Fuzzy Systems and Applications	12 weeks	4	NPTEL	Active
	Practical Machine Learning with Tensor flow	8 weeks	3	NPTEL	Active
	Reinforcement Learning	12 weeks	4	NPTEL	Active
	Neural Networks for Machine Learning	16 weeks	4	Courseera	Active
Cloud Computing	Cloud Computing for Enterprises	8 weeks	3	edX	Active
	Cloud Computing Management	8 weeks	3	edX	Active
	Cloud Computing Infrastructure	8 weeks	3	edX	Active

	Data Engineering on Google Cloud Platform Specialization	4 weeks	1	Courseera	Active
	Security in Google Cloud Platform Specialization	4 weeks	1	Courseera	Active
	AWS Fundamental: Going Cloud Native	5 weeks	2	Course era	Active
	Google cloud Platform Big data and Machine Learning Platform	2 weeks	1	Courseera	Active
Remote Sensing	Remote Sensing	12 weeks	4	NPTEL	Active
	Remote Sensing and Digital Image Processing of Satellite Data	8 weeks	3	NPTEL	Active
Others	Leadership for Engineers	6 weeks	3	edX	Active
	Computer Forensics	8 weeks	3	edX	Active
	Compliance in Office 365: Data Governance	4 weeks	2	edX	Active
	Human Computer Interactions	8 weeks	3	NPTEL	Active
	Introduction To Haskell Programming	8 weeks	3	NPTEL	Active
	Spatial Informatics	8 weeks	3	NPTEL	Active
	Social Networks	12 weeks	4	NPTEL	Active

Archived for the Present Session(July -December, 2019)

Biometrics	8 weeks	3	NPTEL	Archived
Strategic Performance Management	8 weeks	3	NPTEL	Archived
Services Management- A practical approach	4 weeks	2	NPTEL	Archived

Systems Engineering: Theory and Practice	8 weeks	3	NPTEL	Archived
Data Science for Engineers with R	8 weeks	3	NPTEL	Archived
Chaos, Fractals and Dynamic Systems	12 weeks	4	NPTEL	Archived
Compiler Design	12 Weeks	4	NPTEL	Archived
Foundations to Computer Systems Design	12 weeks	4	NPTEL	Archived
Real Time Operating System	4 weeks	1	NPTEL	Archived
Embedded System Design with ARM	8 Weeks	3	NPTEL	Archived
Hardware Security	12 Weeks	4	NPTEL	Archived
Information Security - 5 - Secure Systems Engineering	8 weeks	3	NPTEL	Archived
Privacy and Security in Online Social Media	8 weeks	3	NPTEL	Archived
Block chain Architecture Design and Use Cases	12 weeks	4	NPTEL	Archived
Blockchain Technology	6 weeks	3	edX	Archived
Graph Theory	12 weeks	4	NPTEL	Archived
Business Analytics for Management Decision	12 weeks	4	NPTEL	Archived
Consumer Behaviour	8 weeks	3	NPTEL	Archived
Soft Skills for Business Negotiations and Marketing Strategies	12 weeks	4	NPTEL	Archived
Big Data Computing	8Weeks	3	NPTEL	Archived
Deep Learning – Part 2	8 Weeks	3	NPTEL	Archived
Cloud Computing Security	8 weeks	3	edX	Archived