

List of approved MOOC Course for B Tech Minors 2019 Regulations

Sl No	Course	Course Code	Course Type	B Tech Regulations	Duration	Offering Platform	Course Institution
ELECTRICAL AND ELECTRONICS ENGINEERING							
BASKET III							
1	CONTROL SYSTEMS	EEM305	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
CIVIL ENGINEERING							
BASKET I							
1	SUSTAINABLE TRANSPORTATION SYSTEMS	CEM112	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
2	DYNAMICS OF STRUCTURES	CEM113	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT BOMBAY
3	FINITE ELEMENT METHOD AND COMPUTATIONAL STRUCTURAL DYNAMICS	CEM114	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
BASKET II							
1	EARTH SCIENCES FOR CIVIL ENGINEERING PART I & I	CEM205	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR
2	ANALYSIS AND DESIGN OF BITUMINOUS PAVEMENTS	CEM206	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
BASKET III							
1	BASIC ENVIRONMENTAL ENGINEERING AND POLLUTION ABATEMENT	CEM307	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
2	ECOLOGY AND ENVIRONMENT	CEM308	Minor MOOC	2019 Regulations	9 weeks	NPTEL/ SWAYAM	IIT MADRAS
NAVAL ARCHITECTURE AND SHIP BUILDING							
BASKET I							
1	WELDING PROCESSES	SBM106	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT MADRAS
2	THERMODYNAMICS	SBM107	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT GUWAHATI



12	DIGITAL SWITCHING - I	ECM120	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KANPUR
BASKET II							
1	AN INTRODUCTION TO CODING THEORY	ECM217	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KANPUR
2	ANALOG ELECTRONIC CIRCUIT	ECM218	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT DELHI
3	MODERN DIGITAL COMMUNICATION TECHNIQUES	ECM219	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	DIGITAL CIRCUITS	ECM220	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
5	DIGITAL SWITCHING	ECM221	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KANPUR
6	SIMULATION OF COMMUNICATION SYSTEMS USING MATLAB	ECM222	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT GUWAHATI
7	PRINCIPLES AND TECHNIQUES OF MODERN RADAR SYSTEMS	ECM223	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
8	DIGITAL SWITCHING - I	ECM224	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KANPUR
BASKET III							
1	COMPUTER GRAPHICS	ECM314	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT GUWAHATI
2	COMPUTER ARCHITECTURE	ECM315	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT DELHI
3	COMPUTER VISION	ECM316	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	DEEP LEARNING FOR COMPUTER VISION	ECM317	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT HYDERABAD
5	PATTERN RECOGNITION AND APPLICATION	ECM318	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
6	PATTERN RECOGNITION AND APPLICATION	ECM319	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
7	DISCRETE TIME SIGNAL PROCESSING	ECM320	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
8	INTRODUCTION TO ADAPTIVE SIGNAL PROCESSING	ECM321	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR



9	REAL-TIME DIGITAL SIGNAL PROCESSING	ECM322	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IISc
ELECTRONICS AND BIOMEDICAL ENGINEERING							
BASKET I							
1	SIGNALS AND SYSTEMS	EBM109	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITM
2	COMPUTER VISION AND IMAGE PROCESSING - FUNDAMENTALS AND APPLICATIONS	EBM110	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITG
3	BIOMEDICAL SIGNAL PROCESSING	EBM111	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITKGP
BASKET II							
1	INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS	EBM209	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITKGP
BASKET III							
1	COMPUTATIONAL SYSTEMS BIOLOGY	EBM308	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITM
2	ENGINEERING STATISTICS	EBM309	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITB
BIOMEDICAL ENGINEERING							
BASKET II							
1	BIOMECHANICS	BMM205	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IITM
2	MEDICAL BIOMATERIALS	BMM206	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IITM
3	MICROSENSORS, IMPLANTABLE DEVICES AND RODENT SURGERIES FOR BIOMEDICAL APPLICATIONS	BMM207	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IISc
BASKET III							
1	DATA ANALYSIS FOR BIOLOGISTS	BMM312	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IITG
AGRICULTURAL ENGINEERING							
BASKET I							



1	INSTRUMENTATION AND PROCESS CONTROL IN FOOD INDUSTRY	AGM100	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
2	NOVEL TECHNOLOGIES FOR FOOD PROCESSING AND SHELF LIFE EXTENSION	AGM102	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
3	MACHINE LEARNING FOR SOIL AND CROP MANAGEMENT	AGM104	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	COOLING TECHNOLOGY: WHY AND HOW UTILIZED IN FOOD PROCESSING AND ALLIED INDUSTRIES	AGM106	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
5	ORGANIC FARMING FOR SUSTAINABLE AGRICULTURAL PRODUCTION	AGM108	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
6	FUNDAMENTALS OF FOOD PROCESS ENGINEERING	AGM110	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
7	MICRO IRRIGATION ENGINEERING	AGM112	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
8	ADVANCED AQUACULTURE TECHNOLOGY	AGM114	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
9	SOIL FERTILITY AND FERTILIZERS	AGM116	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
10	THERMAL OPERATIONS IN FOOD PROCESS ENGINEERING: THEORY AND APPLICATIONS	AGM118	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
11	POST HARVEST OPERATIONS AND PROCESSING OF FRUITS, VEGETABLES, SPICES AND PLANTATION CROP PRODUCTS	AGM120	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
12	DAIRY AND FOOD PROCESS AND PRODUCTS TECHNOLOGY	AGM122	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
13	FOOD OILS AND FATS : CHEMISTRY AND TECHNOLOGY	AGM124	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR



INDUSTRIAL ENGINEERING**BASKET I**

1	OPERATIONS MANAGEMENT	IEM110	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT ROORKEE
2	MANUFACTURING PROCESS TECHNOLOGY I & II	IEM111	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
3	PRODUCT DESIGN AND MANUFACTURING	IEM112	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
4	PRODUCT ENGINEERING AND DESIGN THINKIN	IEM113	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
5	PROJECT MANAGEMENT	IEM114	Minor MOOC	2019 Regulations	8 Weeks	NPTEL/ SWAYAM	IIT ROORKEE
6	BUSINESS ANALYTICS FOR MANAGEMENT DECISION	IEM115	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
7	BUSINESS DEVELOPMENT: FROM START TO SCALE	IEM116	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
8	MARKETING RESEARCH AND ANALYSIS-II	IEM117	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
9	PRINCIPLES OF MANAGEMENT	IEM118	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
10	SAFETY AND RISK ANALYTICS	IEM119	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
11	SIX SIGMA	IEM120	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
12	STRATEGIC SERVICES MARKETING	IEM121	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
13	SUPPLY CHAIN ANALYTICS	IEM122	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT ROORKEE

MECHANICAL PRODUCTION ENGINEERING**BASKET I**

1	COMPUTER INTEGRATED MANUFACTURING	MPM106	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
2	OPERATIONS MANAGEMENT	MPM107	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
3	DESIGN PRACTICE	MPM108	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR
4	FAILURE ANALYSIS AND PREVENTION	MPM109	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT ROORKEE



5	BUSINESS ANALYTICS AND DATA MINING MODELING USING R	MPM110	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
6	BUSINESS STATISTICS	MPM111	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
BASKET II							
1	QUALITY DESIGN AND CONTROL	MPM200	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
2	INDUSTRIAL AUTOMATION AND CONTROL	MPM201	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
3	COMPUTER INTEGRATED MANUFACTURING	MPM202	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
4	OPERATIONS MANAGEMENT	MPM203	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
5	DESIGN PRACTICE	MPM204	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR
6	FAILURE ANALYSIS AND PREVENTION	MPM205	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT ROORKEE
7	BUSINESS ANALYTICS AND DATA MINING MODELING USING R	MPM206	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
8	BUSINESS STATISTICS	MPM207	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
PRODUCTION ENGINEERING							
BASKET I							
1	PRODUCT DESIGN AND MANUFACTURING	PEM106	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
2	FUNDAMENTALS OF AUTOMOTIVE SYSTEMS	PEM107	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
3	CARBON MATERIALS AND MANUFACTURING	PEM108	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT Mandi
4	MATERIAL CHARACTERIZATION	PEM109	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
5	NATURE AND PROPERTIES OF MATERIALS	PEM110	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR



6	FUNCTIONAL AND CONCEPTUAL DESIGN	PEM111	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
7	SYSTEM DESIGN FOR SUSTAINABILITY	PEM112	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT GUWAHATI
8	CONTROL SYSTEMS	PEM113	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
9	WORK SYSTEM DESIGN	PEM114	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE
10	ADVANCED MATERIALS AND PROCESSES	PEM115	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
11	INTRODUCTION TO COMPOSITE	PEM116	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR

BASKET II

1	QUALITY CONTROL AND IMPROVEMENT WITH MINITAB	PEM206	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT BOMBAY
2	QUALITY DESIGN AND CONTROL	PEM207	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
3	SIX SIGMA	PEM208	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	INTRODUCTION TO STOCHASTIC PROCESSES	PEM209	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT BOMBAY
5	CARBON MATERIALS AND MANUFACTURING	PEM210	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT Mandi
6	MATERIAL CHARACTERIZATION	PEM211	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
7	NATURE AND PROPERTIES OF MATERIALS	PEM212	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR
8	ADVANCED MATERIALS AND PROCESSES	PEM213	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
9	INTRODUCTION TO COMPOSITE	PEM214	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KANPUR

BASKET III

1	QUALITY CONTROL AND IMPROVEMENT WITH MINITAB	PEM306	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT BOMBAY
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2	QUALITY DESIGN AND CONTROL	PEM307	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
3	SIX SIGMA	PEM308	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	INTRODUCTION TO STOCHASTIC PROCESSES	PEM309	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT BOMBAY
5	PRODUCT DESIGN AND MANUFACTURING	PEM310	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KANPUR
6	FUNDAMENTALS OF AUTOMOTIVE SYSTEMS	PEM311	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
7	FUNCTIONAL AND CONCEPTUAL DESIGN	PEM312	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
8	SYSTEM DESIGN FOR SUSTAINABILITY	PEM313	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT GUWAHATI
9	CONTROL SYSTEMS	PEM314	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT MADRAS
10	WORK SYSTEM DESIGN	PEM315	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROORKEE

INFORMATION TECHNOLOGY

BASKET I

1	PROGRAMMING IN JAVA	ITM104	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
2	PROGRAMMING IN MODERN C++	ITM105	Minor MOOC	2019 Regulations	12 Weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
3	DATA BASE MANAGEMENT SYSTEM	ITM106	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
4	INTRODUCTION TO HASKELL PROGRAMMING	ITM107	Minor MOOC	2019 Regulations	8 weeks	NPTEL/ SWAYAM	IIT MADRAS
5	OBJECT ORIENTED SYSTEM DEVELOPMENT USING UML, JAVA AND PATTERNS	ITM108	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT KHARAGPUR
6	THE JOY OF COMPUTING USING PYTHON	ITM109	Minor MOOC	2019 Regulations	12 weeks	NPTEL/ SWAYAM	IIT ROPAR

