



ARMY INSTITUTE OF TECHNOLOGY (AIT) Dighi Hills, Pune 411015

1.1 Number of courses offered by the Institution across all programs during the year 2021-22

Program code	Program Name	Course code	Course Name	Year of introduction	Link
BE Comp	Computer Engineering	210241	Discrete Mathematics	2020-21	https://www.aitpune.com/Documents/Comp/SECOMP.pdf
	Computer Engineering	210242	Fundamentals of Data Structures		
	Computer Engineering	210243	Object Oriented Programming		
	Computer Engineering	210244	Computer Graphics		
	Computer Engineering	210245	Digital Electronics and Logic Design		
	Computer Engineering	210246	Data Structures Laboratory		
	Computer Engineering	210247	OOP and Computer Graphics Laboratory		
	Computer Engineering	210248	Digital Electronics Laboratory		
	Computer Engineering	210249	Business Communication Skills		
	Computer Engineering	210250	Humanity and Social Science		
	Computer Engineering	210251	Audit Course 3 : Green Construction & Design		
	Computer Engineering	210251	Audit Course 3 : Social Awareness and Governance Program		
	Computer Engineering	210251	Audit Course 3 : Environmental Studies		
	Computer Engineering	210251	Audit Course 3 : Smart Cities		
	Computer Engineering	210251	Audit Course 3 : Foreign Language (one of Japanese/Spanish/French/German)		
	Computer Engineering	207003	Engineering Mathematics III		
	Computer Engineering	210252	Data Structures and Algorithms		
	Computer Engineering	210253	Software Engineering		
	Computer Engineering	210254	Microprocessor		
	Computer Engineering	210255	Principles of Programming Languages		
	Computer Engineering	210256	Data Structures and Algorithms Laboratory		
	Computer Engineering	210257	Microprocessor Laboratory		
	Computer Engineering	210258	Project Based Learning II		
	Computer Engineering	210259	Code of Conduct		
	Computer Engineering	210260	Audit Course 4 : Water Management		
	Computer Engineering	210260	Audit Course 4 : Intellectual Property Rights and Patents		
	Computer Engineering	210260	Audit Course 4 : The Science of Happiness		
	Computer Engineering	210260	Audit Course 4 : Stress Relief: Yoga and Meditation		
	Computer Engineering	210260	Audit Course 4 : Foreign Language (one of Japanese/Spanish/French/German)		
	Computer Engineering	310241	Database Management Systems		
	Computer Engineering	310242	Theory of Computation		
	Computer Engineering	310243	Systems Programming and Operating System		
	Computer Engineering	310244	Computer Networks and Security		
	Computer Engineering	310245(A)	Elective I: Internet of Things and Embedded Systems		



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Computer Engineering	310245(B)	Elective I: Human Computer Interface
Computer Engineering	310245(C)	Elective I: Distributed Systems
Computer Engineering	310245(D)	Elective I: Software Project Management
Computer Engineering	310245(D)	Elective I: Software Project Management
Computer Engineering	310246	Database Management Systems Laboratory
Computer Engineering	310247	Computer Networks and Security Laboratory
Computer Engineering	310248	Laboratory Practice I
Computer Engineering	310249	Seminar and Technical Communication
Computer Engineering	310250 (A)	Audit Course 5 : MOOC- Learn New Skills
Computer Engineering	310250 (B)	Audit Course 5 : Professional Ethics and Etiquettes
Computer Engineering	310250 (C)	Audit Course 5 : Engineering Economics
Computer Engineering	310250 (D)	Audit Course 5 : Foreign Language
Computer Engineering	310251	Data Science and Big Data Analytics
Computer Engineering	310252	Web Technology
Computer Engineering	310253	Artificial Intelligence
Computer Engineering	310254(A)	Elective II: Information Security
Computer Engineering	310254(B)	Elective II: Augmented and Virtual Reality
Computer Engineering	310254(C)	Elective II: Cloud Computing
Computer Engineering	310254(D)	Elective II: Software Modelling and Architecture
Computer Engineering	310255	Internship
Computer Engineering	310256	Data Science and Big Data Analytics Laboratory
Computer Engineering	310257	Web Technology Laboratory
Computer Engineering	310258	Laboratory Practice II
Computer Engineering	310259 (A)	Audit Course 6: Digital and Social Media Marketing
Computer Engineering	310259 (B)	Audit Course 6: Sustainable Energy Systems
Computer Engineering	310259 (C)	Audit Course 6: Leadership and Personality Development
Computer Engineering	310259 (D)	Audit Course 6: Foreign Language
Computer Engineering	310259 (E)	Audit Course 6: MOOC- Learn New Skills
Computer Engineering	410241	High Performance Computing
Computer Engineering	410242	Artificial Intelligence and Robotics
Computer Engineering	410243	Data Analytics
Computer Engineering	410244 A	Elective 1 : Digital Signal Processing
Computer Engineering	410244 B	Elective 1 : Software Architecture and Design
Computer Engineering	410244 C	Elective 1 : Pervasive and Ubiquitous Computing
Computer Engineering	410244 D	Elective 1 : Data Mining and Warehousing
Computer Engineering	410245 A	Elective 2 : Distributed Systems
Computer Engineering	410245 B	Elective 2 : Software Testing and Quality Assurance
Computer Engineering	410245 C	Elective 2 : Operations Research
Computer Engineering	410245 D	Elective 2 : Mobile Communication
Computer Engineering	410246	Laboratory Practice I
Computer Engineering	410247	Laboratory Practice II
Computer Engineering	410248	Project Work Stage I
Computer Engineering	410249 I	Audit Course 5 : Entrepreneurship Development
Computer Engineering	410249 II	Audit Course 5 : Botnet of Things
Computer Engineering	410249 III	Audit Course 5 : 3D Printing
Computer Engineering	410249 IV	Audit Course 5 : Industrial Safety and Environment Consciousness

https://www.aitpune.com/Documents/Comp/TE_Computer_2019_Course_revised_draft_7June2021.pdf

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https://www.aitpune.com/Documents/Comp/TE_Computer_2019_Course_revised_draft_7June2021.pdf

Computer Engineering	410249 V	Audit Course 5 : Conversational Interfaces
Computer Engineering	410249 VI	Audit Course 5 : MOOC- Learn New Skills
Computer Engineering	410250	Machine Learning
Computer Engineering	410251	Information and Cyber Security
Computer Engineering	410252 A	Elective 3 : Advanced Digital Signal Processing
Computer Engineering	410252 B	Elective 3 : Compilers
Computer Engineering	410252 C	Elective 3 : Embedded and Real Time Operating System
Computer Engineering	410252 D	Elective 3 : Soft Computing and Optimization Algorithms
Computer Engineering	410253 A	Elective 4 : Software Defined Networks
Computer Engineering	410253 B	Elective 4 : Human Computer Interface
Computer Engineering	410253 C	Elective 4 : Cloud Computing
Computer Engineering	410253 D	Elective 4 : Open Elective
Computer Engineering	410254	Laboratory Practice III
Computer Engineering	410255	Laboratory Practice IV
Computer Engineering	410256	Project Work Stage II
Computer Engineering	410257 I	Audit Course 6 : Business Intelligence
Computer Engineering	410257 II	Audit Course 6 : Gamification
Computer Engineering	410257 III	Audit Course 6 : Quantum Computing
Computer Engineering	410257 IV	Audit Course 6 : Usability Engineering
Computer Engineering	410257 V	Audit Course 6 : Conversational Interfaces
Computer Engineering	410257 VI	Audit Course 6 : MOOC- Learn New Skills
BE IT	214441	Discrete Mathematics
Information Technology	214442	Logic Design & Computer Organization
Information Technology	214443	Data Structure & Algorithm
Information Technology	214444	Object Oriented Programming
Information Technology	214445	Basics of Computer Network
Information Technology	214446	Logic Design Computer Organization Lab
Information Technology	214447	Data Structure & Algorithm Laboratory
Information Technology	214448	Object Oriented Programming Laboratory
Information Technology	214449	Soft Skills Lab
Information Technology	214450A	Mandatory Audit Course 3 : Ethics and values in IT
Information Technology	214450B	Mandatory Audit Course 3 : - Quantitative Aptitude and Logical Reasoning
Information Technology	214450C	Mandatory Audit Course 3 : Language Study- Japanese- Module
Information Technology	214450D	Mandatory Audit Course 3 : Cyber Security and Law
Information Technology	207003	Engineering Mathematics- III
Information Technology	214451	Processor Architecture
Information Technology	214452	Database Management System
Information Technology	214453	Computer Graphics
Information Technology	214454	Software Engineering
Information Technology	214455	Programming Skill Development Lab
Information Technology	214456	Database Management System Laboratory
Information Technology	214457	Computer Graphics Laboratory
Information Technology	214458	Project Based Learning
Information Technology	214459A	Mandatory Audit Course 4 : Water Supply and Treatment
Information Technology	214459B	Mandatory Audit Course 4 : - Language Study- Japanese- Module I


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Information Technology	214459C	Mandatory Audit Course 4 : Waste Management and Pollution Control
Information Technology	214459D	Mandatory Audit Course 4 : - Intellectual Property Rights
Information Technology	314441	Theory of Computation
Information Technology	314442	Operating Systems
Information Technology	314443	Machine Learning
Information Technology	314444	Human Computer Interaction
Information Technology	314445(A)	Elective I: Design and Analysis of Algorithm
Information Technology	314445(B)	Elective I: Advanced Database and Management System
Information Technology	314445(C)	Elective I: Design Thinking
Information Technology	314445(D)	Elective I: Internet of Things
Information Technology	314446	Operating Systems Lab
Information Technology	314448	Laboratory Practice-I (Machine Learning)
Information Technology	314449	Seminar
Information Technology	314450 (A)	Audit Course 5: Banking and Insurance
Information Technology	314450 (B)	Audit Course 5: Startup Ecosystems
Information Technology	314450 (C)	Audit Course 5: Foreign Language-(Japanese Language- III)
Information Technology	314451	Computer Networks & Security
Information Technology	314452	Data Science and Big Data Analytics
Information Technology	314453	Web Application Development
Information Technology	314454 (A)	Elective II: Artificial Intelligence
Information Technology	314454 (B)	Elective II: Cyber Security
Information Technology	314454 (C)	Elective II: Cloud Computing
Information Technology	314454 (D)	Elective II: Software Modeling and Design
Information Technology	314455	Internship
Information Technology	314456	Computer Network Security Lab
Information Technology	314457	DS & BDA Lab
Information Technology	314458	Laboratory Practice-II (Web Application Development)
Information Technology	314459 (A)	Audit Course 6: (Green and Unconventional Energy)
Information Technology	314459 (B)	Audit Course 6: Leadership and Personality Development
Information Technology	314459 (C)	Audit Course 6: Foreign Language-(Japanese Language-IV)
Information Technology	414453	Information and Cyber Security
Information Technology	414454	Machine Learning and Applications
Information Technology	414455	Software Design and Modeling
Information Technology	414456A	Wireless Communications (EL-I)
Information Technology	414456B	Natural Language Processing (EL-I)
Information Technology	414456C	Usability Engineering (EL-I)
Information Technology	414456D	Multicore and Concurrent Systems (EL-I)
Information Technology	414456E	Business Analytics and Intelligence (EL-I)
Information Technology	414457A	Software Defined Networks (EL-II)
Information Technology	414457B	Soft computing (EL-II)
Information Technology	414457C	Software Testing and Quality Assurance (EL-II)
Information Technology	414457D	Compiler Construction (EL-II)
Information Technology	414457E	Gamification (EL-II)
Information Technology	414458	Computer Laboratory VII
Information Technology	414459	Computer Laboratory VIII
Information Technology	414460	Project Phase - I

<https://www.aitpune.com/Documents/IT/syllabus/Syllabus-teit.pdf>

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Information Technology	414461A	Audit Course 5 : Emotional Intelligence
Information Technology	414461B	Audit Course 5 : Green Computing
Information Technology	414461C	Audit Course 5 : Critical Thinking
Information Technology	414461D	Audit Course 5 : Statistical Learning model using R.
Information Technology	414462	Distributed Computing System
Information Technology	414463	Ubiquitous Computing
Information Technology	414464A	Internet of Things (IoT)
Information Technology	414464B	Elective 3 : Information storage and retrieval
Information Technology	414464C	Elective 3 : Multimedia Techniques
Information Technology	414464D	Elective 3 : Internet and Web Programming
Information Technology	414464E	Elective 3 : Computational Optimization
Information Technology	414465A	Elective 4 : Rural Technologies and Community Development
Information Technology	414465B	Elective 4 : Parallel Computing
Information Technology	414465C	Elective 4 : C o m p u t e r v i s i o n
Information Technology	414465D	Elective 4 : Social Media Analytics
Information Technology	414465E	Elective 4 : Open Elective
Information Technology	414466	Computer Laboratory-IX
Information Technology	414467	Computer Laboratory-X
Information Technology	414468	Project Work
Information Technology	414469A	Audit Course 6 : IoT – Application in Engineering field
Information Technology	414469B	Audit Course 6 : Entrepreneurship
Information Technology	414469C	Audit Course 6 : Cognitive Computing
Information Technology	414469D	Audit Course 6 : AI and Robotics
Electronics and Telecommunication	207005	Engineering Mathematics III
Electronics and Telecommunication	204181	Electronic Circuits
Electronics and Telecommunication	204182	Digital Circuits
Electronics and Telecommunication	204183	Electrical Circuits
Electronics and Telecommunication	204184	Data structures
Electronics and Telecommunication	204185	Electronic Circuit Lab
Electronics and Telecommunication	204186	Digital circuits Lab
Electronics and Telecommunication	204187	Electrical Circuit Lab
Electronics and Telecommunication	204188	Data Structures Lab
Electronics and Telecommunication	204189	Electronic Skill Development
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : Technical English For Engineers
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : Ecology and Environment
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : Ecology and Society
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : German I
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : Science, Technology and Society
Electronics and Telecommunication	204190	Mandatory Audit Course 3 : Introduction to Japanese Language and Culture
Electronics and Telecommunication	204191	Signals & Systems
Electronics and Telecommunication	204192	Control Systems
Electronics and Telecommunication	204193	Principles of Communication Systems
Electronics and Telecommunication	204194	Object Oriented Programming
Electronics and Telecommunication	204195	Signals & Control System Lab
Electronics and Telecommunication	204196	Principle of Communication Systems Lab

<https://www.aitpune.com/Documents/IT/Syllabus-beit.pdf>

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<https://www.aitpune.com/Documents/ETC/Syllabus/EETC SYLLA BUS 2019.pdf>

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Electronics and Telecommunication	204197	Object Oriented Programming Lab
Electronics and Telecommunication	204198	Data Analytics Lab
Electronics and Telecommunication	204199	Employability Skill Development
Electronics and Telecommunication	204200	Project Based Learning
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : Enhancing Soft Skills and Personality
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : Language & Mind
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : Emotional Intelligence
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : German II
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : Human Behaviour
Electronics and Telecommunication	204201	Mandatory Audit Course 4 : Speaking Effectively
Electronics and Telecommunication	304181	Digital Communication
Electronics and Telecommunication	304182	Electromagnetic Field Theory
Electronics and Telecommunication	304183	Database Management
Electronics and Telecommunication	304184	Microcontrollers
Electronics and Telecommunication	304185 (A)	Elective I: Digital Signal Processing
Electronics and Telecommunication	304185 (B)	Elective I: Electronic Measurements
Electronics and Telecommunication	304185 (C)	Elective I: Fundamentals of JAVA Programming
Electronics and Telecommunication	304185 (D)	Elective I: Computer Networks
Electronics and Telecommunication	304186	Digital Communication Lab
Electronics and Telecommunication	304187	Database Management Lab
Electronics and Telecommunication	304188	Microcontroller Lab
Electronics and Telecommunication	304189	Elective I Lab
Electronics and Telecommunication	304190	Skill Development
Electronics and Telecommunication	304191 (A)	Mandatory Audit Course 5
Electronics and Telecommunication	304192	Cellular Networks
Electronics and Telecommunication	304193	Project Management
Electronics and Telecommunication	304194	Power Devices & Circuits
Electronics and Telecommunication	304195 (A)	Elective-II: Digital Image Processing
Electronics and Telecommunication	304195 (B)	Elective-II: Sensors in Automation
Electronics and Telecommunication	304195 (C)	Elective-II: Advanced JAVA Programming
Electronics and Telecommunication	304195 (D)	Elective-II: Embedded Processors
Electronics and Telecommunication	304195 (E)	Elective-II: Network Security
Electronics and Telecommunication	304196	Cellular Networks Lab
Electronics and Telecommunication	304197	Power Devices & Circuits Lab
Electronics and Telecommunication	304198	Elective-II Lab
Electronics and Telecommunication	304199	Internship
Electronics and Telecommunication	304200	Mini Project
Electronics and Telecommunication	304191 (B)	Mandatory Audit Course 6
Electronics and Telecommunication	404181	VLSI Design & Technology
Electronics and Telecommunication	404182	Computer Networks & Security
Electronics and Telecommunication	404183	Radiation & Microwave Techniques
Electronics and Telecommunication	404184 A	Elective 1 : Digital Image and Video Processing
Electronics and Telecommunication	404184 B	Elective 1 : Industrial Drives and Control
Electronics and Telecommunication	404184 C	Elective 1 : Embedded Systems & RTO
Electronics and Telecommunication	404184 D	Elective 1 : Internet of Things
Electronics and Telecommunication	404185 A	Elective 2 : Wavelets


https://www.aitpune.com/Documents/ETC/ETC_2019%20course_09.07.2021.pdf

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	Electronics and Telecommunication	404185 B	Elective 2 : Electronics Product Design	https://www.aitpune.com/Naaedata/Ext/1_1_1 Additional info. pdf
	Electronics and Telecommunication	404185 C	Elective 2 : Optimization Techniques	
	Electronics and Telecommunication	404185 D	Elective 2 : Artificial Intelligence	
	Electronics and Telecommunication	404185 E	Elective 2 : Electronics in agriculture	
	Electronics and Telecommunication	404186	Lab Practice -I	
	Electronics and Telecommunication	404187	Lab Practice -II	
	Electronics and Telecommunication	404188	Project Stage I	
	Electronics and Telecommunication		Audit Course 5 : Green Energy	
	Electronics and Telecommunication		Audit Course 5 : Human Behavior	
	Electronics and Telecommunication	404189	Mobile Communication	
	Electronics and Telecommunication	404190	Broadband Communication Systems	
	Electronics and Telecommunication	404191 A	Elective 3 : Machine Learning	
	Electronics and Telecommunication	404191 B	Elective 3 : PLC s and Automation	
	Electronics and Telecommunication	404191 C	Elective 3 : Audio and Speech Processing	
	Electronics and Telecommunication	404191 D	Elective 3 : Software Defined Radio	
	Electronics and Telecommunication	404191 E	Elective 3 : Audio Video Engineering	
	Electronics and Telecommunication	404192 A	Elective 4 : Robotics	
	Electronics and Telecommunication	404192 B	Elective 4 : Biomedical Electronics	
	Electronics and Telecommunication	404192 C	Elective 4 : Wireless Sensor Networks	
	Electronics and Telecommunication	404192 D	Elective 4 : Renewable Energy Systems	
	Electronics and Telecommunication	404192 E	Elective 4 : Open Elective	
	Electronics and Telecommunication	404193	Lab Practice -III	
	Electronics and Telecommunication	404194	Lab Practice -IV	
	Electronics and Telecommunication	404195	Project Stage II	
	Electronics and Telecommunication		Audit Course 6 : Team Building, Leadership and Fitness for Engineers	
	Electronics and Telecommunication		Audit Course 6 : Environmental Issues And Disaster Management	
B.E.	Mechanical Engineering	202041	Solid Mechanics	 Principal Pune Institute of Technology Dighi Hillis, Pune - 411015 https://www.aitpune.com/Documents/Mech/SE%20Mech.%20and%20Auto.%20Engg.%202019%20202019%20Patt_06.072020.pdf
Mechanical	Mechanical Engineering	202042	Solid Modeling and Drafting	
	Mechanical Engineering	202043	Engineering Thermodynamics	
	Mechanical Engineering	202044	Engineering Materials and Metallurgy	
	Mechanical Engineering	203156	Electrical and Electronics Engineering	
	Mechanical Engineering	202045	Geometric Dimensioning and Tolerancing Lab	
	Mechanical Engineering	202046	Audit Course 3 : Technical English For Engineers	
	Mechanical Engineering	202046	Audit Course 3 : Entrepreneurship Development	
	Mechanical Engineering	202046	Audit Course 3 : Developing soft skills and personality	
	Mechanical Engineering	202046	Audit Course 3 : Design Thinking	
	Mechanical Engineering	202046	Audit Course 3 : Foreign Language (preferably German/	
	Mechanical Engineering	202046	Audit Course 3 : Science, Technology and Society	
	Mechanical Engineering	207002	Engineering Mathematics - III	
	Mechanical Engineering	202047	Kinematics of Machinery	
	Mechanical Engineering	202048	Applied Thermodynamics	
	Mechanical Engineering	202049	Fluid Mechanics	
	Mechanical Engineering	202050	Manufacturing Processes	
	Mechanical Engineering	202051	Machine Shop	
	Mechanical Engineering	202052	Project Based Learning - II	
	Mechanical Engineering	202053	Audit Course 4 : Language & Mind Emotional Intelligence	

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First Year Engineering	107009	Engineering Chemistry	2019-20	https://www.aitpune.com/Documents/ASGE/First%20Year%20Engineering%202019%20Pattern%20Structure%2005.07.2019.pdf
First Year Engineering	102003	Systems in Mechanical Engineering		
First Year Engineering	103004	Basic Electrical Engineering		
First Year Engineering	104010	Basic Electronics Engineering		
First Year Engineering	110005	Programming and Problem Solving		
First Year Engineering	101011	Engineering Mechanics		
First Year Engineering	111006	Workshop		
First Year Engineering	101007	Audit Course 1 (Environmental Studies-I)		
First Year Engineering	107008	Engineering Mathematics-II		
First Year Engineering	102012	Engineering Graphics		
First Year Engineering	110013	Project Based Learning		
First Year Engineering	101014	Audit Course 2 (Environmental Studies-II)		
First Year Engineering	107015	Audit Course 2 (Physical Education-Exercise and Field Activities)		




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