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MIT Academy of Engineering

**Equivalence of the courses for  
Curriculum Revision 2016**

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With Effect From,

2023-2024

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## Equivalence of the Courses for Curriculum Revision 2016

### First-Year Common to All

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Equivalent Course Code Revision 2019	Equivalent Course Name Revision 2019	Equivalent Course Credits Revision 2019
<b>First Year (WEF 2023-2024)</b>						
1	AS101	Mathematics – I	5	AS105	Calculus and Differential Equations	4
2	AS102	Physics	4	AS106	Engineering Physics	4
3	HP101	Language & Communication – I	2	HP103/4/5	English for Engineers //(German/Japanese)	2
4	AS 104	Mathematics -2	5	AS107	Statistics and Integral Calculus	4
5	AS103	Chemistry	4	CH101	Science of Nature	4
6	HP102	Language & Communication – II	2	HP103/4/5	English for Engineers //(German/Japanese)	2
7	EX 101	Electrical & Electronics Engg.	4	EX102	Electrical and Electronics Engineering	4
8	CV 101	Applied Mechanics	4	CV102	Applied Mechanics	4
9	ME 101	Engineering Graphics	4	ME104	Engineering Graphics	4

10	IT 101	Computer programming.	4	CS101	Logic Development-C Programming	3
11	IT 101	Computer programming.	4	CS102	Applications Programming -Python	3
12	ME 102	Experimental Tools & Techniques	2	ME105	Experimental Tools and Techniques	2
13	ME 103	Design Thinking	2	ME106	Design Thinking	2

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## Second, Third, and Final Year Chemical Engineering

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Chemical Engineering (WEF 2023-2024)</b>						
1.	CH202	Material and Energy Balance	4	CH221	Material and Energy Balance	3
2	CH201	Environmental Science	3	CV203	Environmental Science	Audit (Equivalent Credits )
3	AS201	Applied Mathematics	4	AS203	Applied Mathematics	4
4	CH213	Minor Project	2	CH230	Minor Project I	2
5	CH212	Advanced Chemistry	4	CH232	Advanced Chemistry	4
6	ME201	Material Engineering	4	ME221	Material Engineering	4
7	ET206	Prototyping	2	ET235	Rapid Prototyping	2
8	CH211	Momentum Transfer	4	CH223	Momentum Transfer	4
<b>Third Year Chemical Engineering (WEF 2024-2025)</b>						
1	CH301	Chemical Engineering Thermodynamics	4	CH224	Chemical Engineering Thermodynamics	3
2	CH302	Heat Transfer	4	CH231	Heat Transfer	4
3	CH303	Mass Transfer	4	CH233	Mass Transfer	4
4	CH203	Chemical Engineering Operations	4	CH341	Chemical Engineering Operations	4

Final Year Chemical Engineering (WEF 2025-2026)						
1	CH323	Chemical Equipment Design	4	CH462	Chemical Equipment Design II	4
2	CH451	Process Intensification and Integration	4	CH471	Process Intensification and Integration	4
3	CH422	Piping Design and Engineering	4	CH461	Plant Design with Piping	3
4	HP402	Sociology	2	HP406	Psychology	2
5	CH402	Skill Development Lab 2	1	CH463	Skill Development Lab (Aspen EDR)	2
6	CH403	Project - I	4	CH464	Major Project I	2
7	HP401	Engineering Economics	2	HP405	Engineering Economics	2
8	CH432	Project - II	4	CH466	Major Project II	6m
9	CH404	Summer Internship	4	CH465	Summer Internship	4

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## Second, Third, and Final Year Civil Engineering

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Civil Engineering (WEF 2023-2024)</b>						
1.	CV201L	Continuum Mechanics of Solids	1	CV206L	Mechanics of Solids	1
2.	CV201T	Continuum Mechanics of Solids	3	CV206T	Mechanics of Solids	3
3.	CV202L	Geospatial Engineering Technology	1	CV215L	Surveying and Geospatial Engineering	1
4.	CV202T	Geospatial Engineering Technology	3	CV215T	Surveying and Geospatial Engineering	3
5.	CV211L	Building Design & Construction	1	CV205L	Building Design & Construction	1
6.	CV211T	Building Design & Construction	3	CV205T	Building Design & Construction	3
7.	CV212L	Geotechnical Engineering	1	CV204L	Geotechnical Engineering	1
8.	CV212T	Geotechnical Engineering	3	CV204T	Geotechnical Engineering	3
9.	CV213L	Minor Project	2	CV230L	Minor Project-Design	1
				CV240L	Minor Project - Implementation	1

10	AS201T	Applied Mathematics (Theory)	3	AS 203T	Applied Mathematics (Theory)	3
11	AS201L	Applied Mathematics (Laboratory)	1	AS 203L	Applied Mathematics (Laboratory)	1
<b>Third-Year Civil Engineering (WEF 2024-2025)</b>						
10	CV301L	Mechanics of Fluids	1	CV214L	Mechanics of fluids	1
11	CV301T	Mechanics of Fluids	3	CV214T	Mechanics of fluids	3
12	CV302L	Structural Analysis	1	CV216L	Structural Analysis	1
13	CV302T	Structural Analysis	3	CV216T	Structural Analysis	3
14	CV303L	Concrete Technology	1	CV305L	Concrete Technology	1
15	CV303T	Concrete Technology	3	CV305T	Concrete Technology	3
16	CV311L	Construction Planning & Management	1	CV325L	Construction Planning and Management	1
17	CV311T	Construction Planning & Management	3	CV325T	Construction Planning and Management	3
18	CV304L	Extended Three-Dimensional analysis of building system	2	CV342L	Skill Development Course 2- ETABS	2
19	CV331L	Operation Research	1	CV332L	Operation Research	1



20	CV331T	Operation Research	3	CV332T	Operation Research	3
21	CV321L	Design of Structures	1	CV312L	Design of Reinforced Concrete Structures	1
22	CV321T	Design of Structures	3	CV312T	Design of Reinforced Concrete Structures	3
			OR	CV307T	Design of steel structures	3
23.	CV322L	Transportation Engineering	1	CV313L	Transportation Engineering	1
24	CV322T	Transportation Engineering	3	CV313T	Transportation Engineering	3
25	CV323L	Water Resources Engineering	1			
26	CV323T	Water Resources Engineering	3	CV314T	Water Resources Engineering	3
27	CV324L	Mini Project	2	CV350L	Mini Project - Design	2
<b>Final Year Civil Engineering (WEF 2025-2026)</b>						
28	CV421L	Financial Management	1	CV422L	Financial Management	1
29	CV421T	Financial Management	3	CV422T	Financial Management	3
30	CV401L	Drinking Water & Sanitary Engineering	1	CV306L	Drinking Water & Sanitary Engineering	1

31	CV401T	Drinking Water & Sanitary Engineering	3	CV306T	Drinking Water & Sanitary Engineering	3
32	CV411T	Building Services	3	CV471T	Building Services	3
33	CV412T	Advanced Design of Structures	3	CV472T	Structural Dynamics & Earthquake Engineering	3
34	CV413T	Railway Engineering	3	CV473T	Railway Engineering	3
35	CV414T	Hydro Power Engineering	3	CV406T	Design of Hydraulics Structures	3
36	CV403L	Urban & Town Planning	1	CVSWAYAM 07	Introduction to Urban Planning	1
37	CV402L	PROJECT-I	4	CV350L	Mini Project - Design	2
39				CV360L	Mini Project - Implementation	2
40	CV404L	Summer Internship	4	CV400L	Summer Internship	4
41	CV431L	Estimation & Costing	1	CV405L	Estimation and Costing	1
42	CV431T	Estimation & Costing	3	CV405T	Estimation and Costing	3
43	CV451L	Statistical Methods in Construction	1	CV474T	Numerical Methods in Civil Engineering	3
44	CV451T	Statistical Methods in Construction	3			

45	CV441T	Foundation Engineering	3	CV475T	Foundation Engineering	3
46	CV442T	Engineering Geology	3	CV475T	Foundation Engineering	3
47	CV443T	Design of Hydraulic Structures	3	CV406T	Design of Hydraulics Structures	3
48	CV444T	Air & Noise Pollution and Control measures	3	CV477T	Air and Noise Pollution	3
49	CV445T	Advances in Geospatial Engineering	3	CV476T	Geospatial Tools and Techniques	3
50	CV432L	Project - II	4	CV470L	Major Project - Evaluation	4
51	CV433L	Semester Long Internship - Project Design	3	CV467L	Semester Long Internship Design	4
52	CV434L	Semester Long Internship - Project Implementation	3	CV468L	Semester Long Internship Implementation	4
53	CV462T	MAINTENANCE AND REPAIR OF CONCRETE STRUCTURES	3	CVSWAYAM 05	Maintenance and Repair of Concrete Structures	3

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## Second, Third, and Final Year Computer Engineering

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Computer Engineering (WEF 2023-2024)</b>						
1.	CS201	Data and File Structures (TH)	3	CS201	Data and File Structures (TH)	3
2.	CS202	Digital Electronics and Microprocessors	4	CS202	Digital Electronics and Microprocessors	4
3	CS212	Discrete Structure Graph Theory (TH)	3	2304211	Discrete Structure Graph Theory (TH)	3
4	CS212	Database Management Systems	4	2304216	Database Management System	4
5	CS213	Minor Project	2	CS213	Minor Project	2
6	ET206	Prototyping	2	2311251	Digital Prototyping	2
7	IT201	Engineering Informatics	4	2307231	Engineering Informatics	4
8	AS202T	Applied Mathematics (Theory)	3	2301254T	Applied Mathematics (Theory)	3
9	AS202L	Applied Mathematics (Laboratory)	1	2301254L	Applied Mathematics (Laboratory)	1
<b>Third Year Computer Engineering (WEF 2024-2025)</b>						
1	CS301	Operating Systems	4	CS341	Operating Systems	4
2	CS304	Computer Graphics	2	CS304	Computer Graphics	2
3	CS303	Theory of Computation	3	CS342	Theory of Computation	3

4	IT311	Cryptography & System Security	4	IT351	Cryptography & System Security	4
5	CS311	Descriptive Analytics	4	CS351	Descriptive Analytics	4
6	CS312	Artificial Intelligence & Neural Network	4	CS352	Artificial Intelligence	4
7	CS305/ CS306/ CS307	Skill Development Lab (Python with Kali Linux/ Python with Machine Learning/ R programming)	2	CS346	Skill Development Lab (Web Technology/	2
8	HP301	Project Management	2	CS361	Project Management	2
9	CS321	Design & Analysis of Algorithm	4	CS347	Design & Analysis of Algorithm	4
10	CS322	Compiler Design	4	CS322	Compiler Design	4
11	CS323	Computer Networks	4	CS323	Computer Networks	4
12	IT331	Cyber Security	4	IT352	Cyber Security & Forensics	4
13	CS331	Predictive Analysis	4	CS354	Predictive Analysis	4
14	CS332	Machine Learning	4	CS355	Machine Learning	4
15	CS324	Mini Project	2	CS324	Mini Project	2
<b>Final Year Computer Engineering (WEF 2025-2026)</b>						
1	CS401	Software Engineering Testing & Quality Assurance	4	CS401	Software Engineering Testing & Quality Assurance	4

2	CS411/ CS412/ CS413	Department Elective (Operating System Design /Wireless & Mobile Networks / Information Retrieval	3	CS472	Department Elective (/Wireless & Mobile Networks)	3
3	IT421	Ethical Hacking & Cyber Laws	4	IT461	Ethical Hacking & Cyber Laws	4
4	CS421	Big Data Analytics	4	CS461	Big Data Analytics	4
5	CS422	Deep Learning	4	CS462	Deep Learning	4
6	HP403 / CS402 / CS403 / CS404	Advance Skill Development (Business Strategies / Advance Java/ R Programming / Python Kali Linux	2	CS486	Skill Development Lab (Amazon Web Services)	2
7	CS405	Project	4	CS405	Project	4
8	CS431	Human Computer Interaction	4	CS482	Human Computer Interaction	4
9	*CS441 / CS442/ CS443	(Distributed System/ Ubiquitous System/ Cloud & Virtualization)	3	*CS441 / CS442/ CS443	(Distributed System/ Ubiquitous System/ Cloud & Virtualization)	3
10	*IT451	Digital Forensics	4	*IT451	Digital Forensics	4
11	*CS451	Practitioner's Approach for Data Analytics	4	*CS451	Practitioner's Approach for Data Analytics	4
12	*CS452	Pattern Recognition	4	*CS452	Pattern Recognition	4
13	CS432	Project 2	4	CS432	Project 2	4

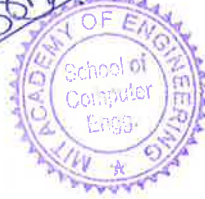


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## Second, Third, and Final Year Information Technology

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Information Technology (WEF 2023-2024)</b>						
1	IT202	Object Oriented Technology	4	IT202	Object Oriented Technology	4
2	IT203	Computer Network Technology	4	IT203	Computer Network Technology	4
3	IT211	Data Structures & Application	4	IT211	Data Structures & Application	4
4	IT212	Database Systems	4	2304216	Database Management System	4
5	CS213	Minor Project	2	CS213	Minor Project	2
6	ET206	Prototyping	2	2311251	Digital Prototyping	2
7	IT201	Engineering Informatics	4	2307231	Engineering Informatics	4
8	AS202T	Applied Mathematics (Theory)	3	2301254	Applied Mathematics (Theory)	3
9	AS202L	Applied Mathematics (Laboratory)	1	2301254	Applied Mathematics (Laboratory)	1
<b>Third Year Information Technology (WEF 2024-2025)</b>						
1	IT301	Computability Theory	4	IT301	Computability Theory	4
2	IT302	Operating Systems	4	IT302	Operating Systems	4
3	IT303	Web Technology	4	IT303	Web Technology	4

4	IT311	Cryptography & System Security	4	IT351	Cryptography & System Security	4
5	CS311	Descriptive Analytics	4	CS351	Descriptive Analytics	4
6	CS312	Artificial Intelligence & Neural Network	4	CS352	Artificial Intelligence	4
7	CS305/ CS306/ CS307	Skill Development Lab (Python with Kali Linux/ Python with Machine Learning/ R programming)	2	CS346	Skill Development Lab(Web Technology/	2
8	IT321	Computational Intelligence	4	IT321	Computational Intelligence	4
9	IT322	Cloud Services & Application	4	IT322	Cloud Services & Application	4
10	IT323	Mobile Application Development	4	IT323	Mobile Application Development	4
11	HP301	Project Management	2	CS361	Project Management	2
12	IT331	Cyber Security	4	IT352	Cyber Security & Forensics	4
13	CS331	Predictive Analysis	4	CS354	Predictive Analysis	4
14	CS332	Machine Learning	4	CS355	Machine Learning	4
15	CS324	Mini Project	2	CS324	Mini Project	2
<b>Final Year Information Technology (WEF 2025-2026)</b>						
1	CS401	Software Engineering Testing & Quality Assurance	4	CS401	Software Engineering Testing & Quality Assurance	4

2	CS411/ CS412/ CS413	Department Elective (Operating System Design /Wireless & Mobile Networks / Information Retrieval	3	CS472	Department Elective (/Wireless & Mobile Networks	3
3	IT421	Ethical Hacking & Cyber Laws	4	IT461	Ethical Hacking & Cyber Laws	4
4	CS421	Big Data Analytics	4	CS461	Big Data Analytics	4
5	CS422	Deep Learning	4	CS462	Deep Learning	4
6	HP403 / CS402 / CS403 / CS404	Advance Skill Development (Business Strategies / Advance Java/ R Programming / Python Kali Linux	2	CS486	Skill Development Lab (Amazon Web Services)	2
7	CS405	Project	4	CS405	Project	4
8	CS431	Human Computer Interaction	4	CS482	Human Computer Interaction	4
9	*CS441 / CS442/ CS443	Distributed System/ Ubiquitous System/ Cloud & Virtualization	3	*CS441 / CS442/ CS443	Distributed System/ Ubiquitous System/ Cloud & Virtualization	3
10	*IT451	Digital Forensics	4	*IT451	Digital Forensics	4
11	*CS451	Practitioner's Approach for Data Analytics	4	*CS451	Practitioner's Approach for Data Analytics	4
12	*CS452	Pattern Recognition	4	*CS452	Pattern Recognition	4
13	CS432	Project 2	4	CS432	Project 2	4

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**Second, Third, and Final Year Electronics Engineering and Electronics and Telecommunication**

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Electronics Engineering and Electronics and Telecommunication (WEF 2023-2024)</b>						
1	ET202	Analog Electronics	4	ET221	Electronic Devices and Circuits	4
2	ET203	Digital Systems & Applications	4	ET222	Digital Systems and Applications	4
3	ET211	Signals and Systems	3	ET223	Signals & Systems	4
4	ET212	Network Analysis Techniques	4	ET232	Network Analysis Techniques	4
5	ET206	Prototyping	2	ET224	Digital Prototyping	2
6	ET213	Minor Project	2	ET230	Minor Project Design	2
<b>Third Year Electronics Engineering and Electronics and Telecommunication (WEF 2024-2025)</b>						
1	ET301	Control Systems	4	ET341	Control Systems	4
2	ET302	Analog Communication	4	ET362	Principales of Communication System	4
3	ET303	Microcontroller & Application	4	ET233	Microcontroller & Interfacing	4
4	ET321	Digital Communication	4	ET362	Principales of Communication System	4

5	ET322	Digital Signal Processing	4	ET342	Digital Signal Processing	4
6	ET323	Antenna Theory & Design	4	ET231	Electromagnetic Theory	4
7	ET311	Embedded System Programming (ESP)	4	ET470	Activity and project based assessment	4
8	ET331	Embedded Processor	4	ET470	Activity and project based assessment	4
9	ET312	IoT Architecture and Sensors	4	ET352	IoT Architecture & Sensors	4
10	ET332	IoT Network & Protocols	4	ET372	IoT Network & Protocols	4
11	EX311	Fundamentals of Robotics	4	ME352	Robot fundamentals and Kinematics	4
12	EX331	Kinematics and Dynamics of Robotics	4	EX371	Robot Dynamics and Control	4
13	ET304	Graphical Programming Lab	2	ET344	Data Science	2
14	ET305	MATLAB	2	ET344	Data Science	2
15	EX304	Embedded Linux	2	ET344	Data Science	2
16	ET324	Mini Project	2	ET350	Project Design	2
<b>Final Year Electronics Engineering and Electronics and Telecommunication (WEF 2025-2026)</b>						
1	ET401	VLSI Design	4	ET461	HDL-Digital Circuit Design	4
2	ET431	Advanced Communication Systems	4	ET362	Principales of Communication System	4

3	ET214	Data Structures and Algorithms	1	ET225	Data Structures & Algorithms (Will get mapped to 1 Credit)	2
4	ET411	Digital Image Processing	3	ET482	Digital Image Processing	3
5	ET412	Microwave Engineering	3	ET470	Activity based assessment	3
6	ET413	RISC Processors	3	ET484	RTOS	3
7	ET414	Machine Learning	3	ET363	Soft Computing (Will get mapped to 3 credits)	4
8	EX441	Biomedical Engineering	3	ET494	Biomedical Engineering	3
9	ET442	Artificial Intelligence	3	ET363	Soft Computing (Will get mapped to 3 credits)	4
10	ET443	Wireless Sensor Network	3	ET493	Signal Detection and Estimation Techniques	3
11	ET444	Speech Signal Processing	3	ET493	Signal Detection and Estimation Techniques	3
12	ET421	Low-Power SoC Architecture & Applications	4	ET470	Activity and project based assessment	4
13	ET451	Real Time Embedded System	4	ET470	Activity and project based assessment	4

14	ET422	Privacy and Security in IoT	4	ET472	Data Management and Analytics	4
15	ET452	Energy Management for IoT Device	4	ET470	Activity and project based assessment	4
16	EX421	Robotics Vision	4	EX471	AI in Robotics	4
17	EX451	Intelligent and High Performance Robotics	4	ET470	Activity and project based assessment	4
18	ET403	Programming in Java	4	ET463	Embedded Linux	2
19	ET402	Project – I	4	ET470	Project Evaluation	4
20	ET404	Summer Internship	4	ET400	B Tech Summer Internship	4
21	ET432	Project – II	4	ET480	Capstone Work	4

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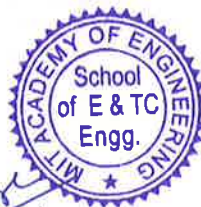
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### Second, Third, and Final Year Mechanical Engineering

Sr. No.	Course Code Revision 2016	Course Name Revision 2016	Course Credits Revision 2016	Course Code Revision 2019	Course Name Revision 2019	Course Credits Revision 2019
<b>Second-Year Mechanical Engineering (WEF 2023-2024)</b>						
1.	AS201T	Applied Mathematics (Theory)	3	AS 203T	Applied Mathematics (Theory)	3
2.	AS201L	Applied Mathematics (Laboratory)	1	AS 203L	Applied Mathematics (Laboratory)	1
3	ME202	Thermal Engineering	4	ME232	Thermal Engineering	4
4	ME203	Solid Mechanics	4	ME231	Strength of Materials	4
5	ME211	Fluid Mechanics	4	ME235	Fluid Mechanics	4
6	ME212	Manufacturing Technology	4	ME233	Manufacturing Technology	4
<b>Third Year Mechanical Engineering (WEF 2024-2025)</b>						
1	ME301	Machine Design	4	ME341	Machine Design	4
2	ME302	Machines & Mechanisms	4	ME234	Machines & Mechanisms	4

3	ME303	Heat Transfer	4	ME346	Heat Transfer	4
4	ME321	Turbomachines	4	ME342	Turbomachines	4
5	ME322	Quality Assurance	4	ME347	Quality Management	3
6	ME323	Operations Research	4	ME471	Operations Research	3
<b>Final Year Mechanical Engineering (WEF 2025-2026)</b>						
1	ME401	Heating Ventilation & Air Conditioning	4	ME461	Refrigeration & Air Conditioning	4
2	ME431	Noise Vibration & Harshness	4	ME462	Machine Dynamics	4
3	ME441	Hydraulics & Pneumatics	3	ME343	Hydraulics & Pneumatics	3
4	ME442	Mechanical System Design	3	ME473	Mechanical System Design	3

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