



**GALGOTIAS  
UNIVERSITY**



**School of Computer Science and Engineering**  
**Department of Computer Science and Engineering**

**Curriculum for Program:**  
**Master of Technology**  
**in**  
**Computer Science and Engineering**  
**Batch: 2026-2028**

## Vision of the University

*“To be known globally for value based education, research, innovation, outreach and sustainable practices”*

---

## Mission of the University

- Enabling teaching learning ecosystem to support research and governance to achieve academic success.
  - Establish state-of-the-art facilities for impactful education and research.
  - Collaborate with stakeholders to align with new age curriculum and skill development.
  - Involvement in societal outreach programs to identify concerns and provide sustainable ethical solutions.
  - Encourage life-long learning and team-based problem-solving through an enabling environment.
- 

## Vision of the Department

*"To be recognized globally as a premier School of Computer Science and Engineering for imparting quality and value-based education within a multi-disciplinary and collaborative research-based environment."*

---

## Mission of the Department

- M<sub>1</sub>:** Develop a strong foundation in fundamentals of Computer Science and engineering with responsiveness towards emerging technologies.
- M<sub>2</sub>:** Establish state-of-the-art facilities and adopt education 4.0 practices to analyze, develop, test, and deploy sustainable ethical IT solutions by involving multiple stakeholders.
- M<sub>3</sub>:** Foster multidisciplinary collaborative research in association with academia and industry through focused research groups, Centre of Excellence, and Industry Oriented R&D Labs.
- 

## PEOs of the Program

### M. Tech. (CSE)

**PEO1:** The Post Graduates of Computer Science and Engineering shall be able to successfully pursue doctoral research in Computer Science, Engineering and allied disciplines at institutions of transnational reputation.

**PEO2:** The Post Graduates of Computer Science and Engineering shall serve in technical or managerial roles at Government firms, Corporates and contributing to the society as successful entrepreneurs through start-up.

**PEO3:** The Post Graduates of Computer Science and Engineering shall be engaged with leading Global Software Product development companies, Research & Consultancy organizations and academic Institutions.

---

## Program Outcomes (POs)

### M. Tech. (CSE)

**PO1:** An ability to independently carry out research / investigation and development work to solve practical problems.

**PO2:** An ability to write and present a substantial technical report/document.

**PO3:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

---

## PSOs of the Program

### M. Tech. (CSE)

**PSO1:** Have the ability to work with contemporary technologies in computing requisite to Industry 4.0 developing and implementing solutions to real life problems.

**PSO2:** Demonstrate Engineering Practice learned through research project to solve live problems across diverse domains.

### List of Courses (Semester-Wise)

First Semester - M. Tech. (CSE)							
S.N.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	
1	101	Advanced Design And Analysis Of Algorithms	3	0	1	0	4
2	102	Advanced Computer Networks	3	0	1	0	4
3	103	Advanced Operating Systems	3	0	0	0	3
4	104	Artificial Intelligence for Cyber Security	3	0	0	0	3
5	105	Technical Seminar	0	0	1	0	1
6	106	Professional and Communication Skills	0	0	1	0	1
7	107	Advanced Numerical And Statistical Methods	3	1	0	0	4
<b>Total credits</b>							<b>20</b>

Second Semester - M. Tech. (CSE)							
S.N.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	
1	201	Research Methodology	3	0	0	0	3
2	202	Technical Writing	0	0	2	0	1
3	203	Machine Learning	3	0	1	0	4
4	204	Cloud based Big Data Systems	3	0	1	0	4
5	205	Program Specific Elective-I	3	0	1	0	4
6	206	Program Elective-I	3	0	0	0	3
7	207	Verbal and Quantitative Reasoning	0	0	2	0	1
<b>Total credits</b>							<b>20</b>

Third Semester - M. Tech. (CSE)							
S.N.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	
1	301	Quantitative and Communication Proficiency	0	0	2	0	2
2	302	M. Tech Dissertation Part-1	0	0	0	9	10
3	303	Program Specific Elective-II	3	0	1	0	4
4	304	Program Elective-II	3	0	0	0	4
<b>Total credits</b>							<b>20</b>

Fourth Semester - M. Tech. (CSE)							
S.N.	Course Code	Course Title	Credit Structure				Total Credits
			L	T	P	S	
1	401	M. Tech Dissertation-Final	0	0	0	18	20

## List of Electives

S.N.	Course Code	Program Specific Elective-I (Sem II)	L	T	P	S	Credits
1	205	Full Stack Development	3	0	1	0	4
2	205	Bitcoin and Cryptocurrency	3	0	1	0	4
3	205	Secure Software Engineering	3	0	1	0	4
4	205	Generative AI and Prompt Engineering	3	0	1	0	4

S.N.	Course Code	Program Elective-I (Sem II)	L	T	P	S	Credits
1	206	Distributed Systems	3	0	0	0	3
2	206	Blockchain Technologies	3	0	0	0	3
3	206	Intelligent Agents	3	0	0	0	3

S.N.	Course Code	Program Specific Elective-II (Sem III)	L	T	P	S	Credits
1	303	Ethical Hacking and Penetration Testing	3	0	1	0	4
2	303	Mastering Database Management and Analytics	3	0	1	0	4
3	303	Data Mining and Analytics	3	0	1	0	4
4	303	Deep Learning Techniques	3	0	1	0	4

S.N.	Course Code	Program Elective-II (Sem III)	L	T	P	S	Credits
1	304	Industrial Internet of Things (IIoT) Security	3	0	1	0	4
2	304	Social Network Analysis	3	0	1	0	4
3	304	Computational Compilation	3	0	1	0	4