



SCHEME



Department of Computer Science and
Engineering (AI&ML)


HEAD OF THE DEPARTMENT
Dept. of Computer Science & Engineering (AI & ML)
Global Academy of Technology
Bangalore-560 098.


Dean Academic
Global Academy of Technology,
Raja Rajeshwari Nagar, Bengaluru - 560098

2024 SCHEME

Computer Science and Engineering (AI&ML)

III – IV Semester

GLOBAL ACADEMY OF TECHNOLOGY

(Autonomous Institution Affiliated to VTU, Belagavi.)

Accredited by NAAC with 'A' Grade,

NBA Accredited - CSE, ISE, ECE, EEE, ME, CV

Ideal Homes Township,

Raja Rajeshwari Nagar, Bengaluru-560098.



Global Academy of Technology

(An Autonomous Institution, affiliated to VTU, Belagavi, recognized by Karnataka and Approved by AICTE, New Delhi.)

B.E. in Computer Science and Engineering (Artificial Intelligence and Machine Learning)

Scheme of Teaching and Examinations 2024

Outcome Based Education (OBE) and Choice Based Credit System

(CBCS)(Effective from the academic year 2025-26)



III SEMESTER

Sl. No	Course and Course Code		CourseTitle	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration Inhours	CIE Marks	SEE Marks	TotalMarks	
1	BS	MAT24301A	Discrete Mathematics and Graph Theory	TD: MAT, PSB: MAT	2	2	0		03	50	50	100	3
2	PCC	CSE24302	Operating Systems	TD: CI, PSB: CSE	3	0	0		03	50	50	100	3
3	IPCC	CML4303	Digital Logic Design and Computer Organization	TD & PSB: CI	3	0	2		03	50	50	100	4
4	PCC	CSE24304	Data Structures	TD: CI, PSB: CSE	3	0	0		03	50	50	100	3
5	PCCL	CSEL24305	Data Structures Lab	TD: CI, PSB: CSE	0	0	2		03	50	50	100	1
6	ESC/ETC/PLC	CML24306x	ESC/ETC/PLC	TD & PSB: CI	If the course is theory				03	50	50	100	3
					3	0	0						
					If the course is lab								
					2	0	2						
7	MC	SCK24307	Social Connect and Responsibility	Any Department	0	0	2		03	100	-	100	1
8	AEC	CML24308x	Ability Enhancement Course/Skill Development Course – I	TD & PSB: CI	1	0	2		03	50	50	100	2
9	MC	NSK24309	National Service Scheme (NSS)	NSS coordinator	0	0	2		02	100	-	100	0
		PEK24309	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		YOK24309	Yoga	Yoga Teacher									
Total									550	350	900	20	

(Signature)

H. P. Rajashekar Swamy
Dean

Global Academy of Technology,
Rajarajeshwarinagar, Bengaluru-98

Engineering Science Course (ESC/ETC/PLC)

CML24306A	Introduction to Web Technologies	CML24306C	Advanced Python
CML24306B	Data Analytics with R	CML24306D	Scala

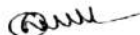
Ability Enhancement Course – I

CML24308A	Data Analytics with Excel	CML24308C	Unix Shell Programming
CML24308B	Project Management with Git	CML24308D	Capacity Planning For IT

PCC: Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **MC:** Mandatory Course (Non-credit), **AEC:** Ability Enhancement Course, **SEC:** Skill Enhancement Course, **L:** Lecture, **T:** Tutorial, **P:** Practical **S= SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation. **K :** The letter in the course code indicates common to all the stream of engineering. **PROJ:** Project /Mini Project. **PEC:** Professional Elective Course.

Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching-Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23

National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.





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(Effective from the academic year 2025-26)



IV SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self -Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	BS	MAT24401A	Probability and Linear Algebra	TD: MAT, PSB: MAT	2	2	0		03	50	50	100	3
2	IPCC	CML24402	Database Management System	TD & PSB: CI	3	0	0		03	50	50	100	3
3	IPCC	CSE24403	Object Oriented Programming with Java	TD: CI, PSB: CSE	3	0	2		03	50	50	100	4
4	PCC	CSE24404	Design and Analysis of Algorithms	TD: CI, PSB: CSE	3	0	0		03	50	50	100	3
5	PCCL	CSEL24405	Algorithms Laboratory	TD: CI, PSB: CSE	0	0	2		03	50	50	100	1
6	ESC/ ETC/ PLC	CML24406x	ESC/ETC/PLC	TD & PSB: CI	If the course is theory				03	50	50	100	3
					3	0	0						
					If the course is lab								
					2	0	2						
7	UHV	UHK24407	Universal Human Values	Any Department	1	0	0		03	50	50	100	1
8	AEC	CML24408x	Ability Enhancement Course/Skill Development Course - II	TD & PSB: CI	1	0	2		03	50	50	100	2
9	MC	NSK24409	National Service Scheme (NSS)	NSS coordinator	0	0	2		02	100	-	100	0
		PEK24409	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		YOK24409	Yoga	Yoga Teacher									
Total										500	400	900	20

Total

H.P. Rajeshwar

[Signature]

Dean Academic

Global Academy of Technology,

Rajarajeshwarinagar, Bengal - 1-98

Engineering Science Course (ESC/ETC/PLC)			
CML24406A	Optimization Technique	CML24406C	Theory of Computation
CML24406B	Algorithmic Game Theory	CML24406D	Metric Spaces
Ability Enhancement Course – II			
CML24408A	R Programming	CML24408C	PHP Programming
CML24408B	MERN	CML24408D	Technical Writing using LATEX
<p>PCC: Professional Core Course, PCCL: Professional Core Course laboratory, UHV: Universal Human Value Course, MC: Mandatory Course (Non-credit), AEC: Ability Enhancement Course, SEC: Skill Enhancement Course, L: Lecture, T: Tutorial, P: Practical S= SDA: Skill Development Activity, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation. K : The letter in the course code indicates common to all the stream of engineering. PROJ: Project /Mini Project. PEC: Professional Elective Course.</p> <p>Professional Core Course (IPCC): Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching-Learning hours (L : T : P) can be considered as (3 : 0 : 2) or (2 : 2 : 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (B.E./B.Tech.) 2022-23</p> <p>National Service Scheme /Physical Education/Yoga: All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.</p>			

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