



GLOBAL ACADEMY OF TECHNOLOGY

(Autonomous) Approved by AICTE, New Delhi, Affiliated to VTU, Ideal

Homes Township, Rajarajeshwari Nagar, Bengaluru - 560098



Bachelor of Engineering (B.E)

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

I TO VIII SEMESTER 2024 SCHEME

BE Programs: CS, IS, AI&DS, EC, CS-AI&ML, EE, ME, CE, AE, AI&ML

PG Programs: M.Tech (CSE), M.Tech(Structural Engg.), MBA

Ph.D Programs: VTU Affiliated Research Centers in Engineering

Global Academy of Technology, Bengaluru Scheme of Teaching and Examinations (Effective from the academic year 2024- 25)													
I Semester (CSE Stream) (Physics Group)													
Sl. No	Course and course code		Course title	TD/PSB	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	ASC(IC)	BMATS24101	Mathematics-I for CSE Stream(Integrated)	Maths	2	2	2	0	03	50	50	100	04
2	ASC(IC)	BPHYS24102	Applied Physics for CSE stream(Integrated)	Physics	2	2	2	0	03	50	50	100	04
3	ESC	BPOPS24103	Principles of Programming Using C (Integrated)	CSE	2	0	2	0	03	50	50	100	03
4	ESC-I	BESCK24104x	Engineering Science Course-I	Respective Engg Dept	3	0	0	0	03	50	50	100	03
5	ETC-I	BETCK24105x	Emerging Technology Course-I	Any Dept	3	0	0	0	03	50	50	100	03
	OR												
	PLC-I	BPLCK24105x	Programming Languages Course-I		2	0	2	0	03				
6	AEC	BENGK24106	Communicative English	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BPWSK24106	Professional Writing Skills in English										
7	HSMC	BKSKK24107 BKBKK24107	Sanskrutika Kannada/ Balake Kannada	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BICOK24107	Indian Constitution										
8	AEC/SDC	BIDTK24108	Innovation and Design Thinking	Any Dept	1	0	0	0	01	50	50	100	01
		OR											
		BSFHK24108	Scientific Foundations of Health		1	0	0	0	01				
TOTAL										400	400	800	20

Global Academy of Technology, Bengaluru													
Scheme of Teaching and Examinations (Effective from the academic year 2024- 25)													
II Semester(CSE Stream)				(For students attended 1 st semester under Physics Group)									
Sl. No	Course and course code		Course title	TD/PSB	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	*ASC(IC)	BMATS24201	Mathematics-II for CSE Stream(Integrated)	Maths	2	2	2	0	03	50	50	100	04
2	#ASC(IC)	BCHE24202	Applied Chemistry for CSE Stream(Integrated)	Chemistry	2	2	2	0	03	50	50	100	04
3	ESC	BCEDK24203	Computer-Aided Engineering Drawing	Civil/Mech Engg dept	2	0	2	0	03	50	50	100	03
4	ESC-II	BESCK24204x	Engineering Science Course-II	Respective Engg. Dept	3	0	0	0	03	50	50	100	03
5	PLC-II	BPLCK24205x	Programming Language Course-II	Any Dept	2	0	2	0	03	50	50	100	03
	OR												
	ETC-II	BETCK24205x	Emerging Technology Course-II		3	0	0	0	03				
6	AEC	BPWSK24206	Professional Writing Skills in English	Humanities	1	0	0	0	01	50	50	100	01
			OR										
		BENGK24206	Communicative English										
7	HSMS	BICOK24207	Indian Constitution	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BKSKK24207/ BKBKK24207	Sanskrutika Kannada/ Balake Kannada		1	0	0	0					
8	HSMS	BSFHK24208	Scientific Foundations of Health	Any Dept	1	0	0	0	01	50	50	100	01
			OR										
		BIDTK24208	Innovation and Design Thinking		1	0	0	0	01				
TOTAL										400	400	800	20

Global Academy of Technology, Bengaluru Scheme of Teaching and Examinations (Effective from the academic year 2024- 25)													
I Semester (CSE Stream)				(For Chemistry Group)									
Sl. No	Course and course code		Course title	TD/PSB	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	*ASC(IC)	BMATS24101	Mathematics-I for CSE Stream(Integrated)	Maths	2	2	2	0	03	50	50	100	04
2	#ASC(IC)	BCHES24102	Applied Chemistry for CSE Stream(Integrated)	Chemistry	2	2	2	0	03	50	50	100	04
3	ESC	BCEDK24103	Computer-Aided Engineering Drawing	Civil/Mech Engg dept	2	0	2	0	03	50	50	100	03
4	ESC-I	BESCK24104x	Engineering Science Course-I	Respective Engg Dept	3	0	0	0	03	50	50	100	03
5	ETC-I	BETCK24105x	Emerging Technology Course-I	Any Dept	3	0	0	0	03	50	50	100	03
	OR												
	PLC-I	BPLCK24105x	Programming Language Course-I		2	0	2	0	03				
6	AEC	BPWSK24106	Professional Writing Skills in English	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BENGK24106	Communicative English										
7	HSMS	BICOK24107	Indian Constitution	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BKSKK24107/ BKBKK24107	Sanskrutika Kannada/ Balake Kannada		1	0	0	0					
8	HSMS	BSFHK24108	Scientific Foundations of Health	Any Dept	1	0	0	0	01	50	50	100	01
		OR											
		BIDTK24108	Innovation and Design Thinking		1	0	0	0	01				
TOTAL										400	400	800	20

Global Academy of Technology, Bengaluru
Scheme of Teaching and Examinations-2024
Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)
(Effective from the academic year 2024-25)

II Semester (CSE Streams)				(For students who attended 1 st semester under Chemistry Group)									
Sl. No	Course and course code		Course title	TD/PSB	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	*ASC(IC)	BMATS24201	Mathematics-II for CSE Stream(Integrated)	Maths	2	2	2	0	03	50	50	100	04
2	#ASC(IC)	BPHYS24202	Applied Physics for CSE Stream(Integrated)	Physics	2	2	2	0	03	50	50	100	04
3	ESC	BPOPS24203	Principles of Programming Using C	CSE	2	0	2	0	03	50	50	100	03
4	ESC-II	BESCK24204x	Engineering Science Course-II	Respective Engg dept	3	0	0	0	03	50	50	100	03
5	PLC-II	BPLCK24205x	Programming Language Course-II	Any Dept	2	0	2	0	03	50	50	100	03
	OR												
	ETC-II	BETCK24205x	Emerging Technology Course-II		3	0	0	0	03				
6	AEC	BENGK24206	Communicative English	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BPWSK24206	Professional Writing Skills in English										
7	HSMC	BKSKK24207 BKBKK24207	Sanskrutika Kannada/ Balake Kannada	Humanities	1	0	0	0	01	50	50	100	01
		OR											
		BICOK24207	Indian Constitution										
8	AEC/SDC	BIDTK24208	Innovation and Design Thinking	Any Dept	1	0	0	0	01	50	50	100	01
		OR											
		BSFHK24208	Scientific Foundations of Health		1	0	0	0	01				
TOTAL										400	400	800	20

(ESC-I/II) Engineering Science Courses-I/II					(ETC-I/II) Emerging Technology Courses-I/II				
Code	Title	L	T	P	Code	Title	L	T	P
BESCK24104/204A	INTRODUCTION TO CIVIL ENGINEERING	3	0	0	BETCK24105/205A	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	3	0	0
BESCK24104/204B	INTRODUCTION TO ELECTRONICS AND COMMUNICATION	3	0	0	BETCK24105/205B	INTRODUCTION TO EMBEDDED SYSTEM	3	0	0
BESCK24104/204C	INTRODUCTION TO ELECTRICAL ENGINEERING	3	0	0	BETCK24105/205C	SENSOR SYSTEMS	3	0	0
BESCK24104/204D	INTRODUCTION TO C PROGRAMMING (INTEGRATED)	2	0	2	BETCK24105/205D	ELECTROMECHANICAL SYSTEMS & MEASUREMENTS	3	0	0
BESCK24104/204E	INTRODUCTION TO ENGINEERING MECHANICS	3	0	0	BETCK24105/205E	WASTE MANAGEMENT	3	0	0
BESCK24104/204F	ENGINEERING GEOLOGY (INTEGRATED)	2	0	2	BETCK24105/205F	GREEN BUILDINGS	3	0	0
BESCK24104/204G	INTRODUCTION TO AERONAUTICAL ENGINEERING(Integrated)	2	0	2	BETCK24105/205G	SMART MATERIALS AND SYSTEMS	3	0	0
BESCK104H/204H	INTRODUCTION TO MECHANICAL ENGINEERING	2	0	2	BETCK24105/205H	INTRODUCTION TO NANO TECHNOLOGY	3	0	0
					BETCK24105/205I	INTRODUCTION TO SUSTAINABLE ENGINEERING	3	0	0
					BETCK24105/205J	RENEWABLE ENERGY SOURCES	3	0	0
					BETCK24105/205K	EMERGING APPLICATIONS OF BIOSENSORS	3	0	0
					BETCK24105/205L	INTRODUCTION TO INTERNET OF THINGS (IOT)	3	0	0
					BETCK24105/205M	INTRODUCTION TO CYBER SECURITY	3	0	0
					BETCK24105/205N	INTRODUCTION TO EMBEDDED SYSTEMS	3	0	0
(PLC-I/II) Programming Language Courses-I/II									
Code	Title	L	T	P					
BPLCK24105/205A	PROGRAMMING IN C (INTEGRATED)	2	0	2					
BPLCK24105/205B	INTRODUCTION TO PYTHON PROGRAMMING(INTEGRATED)	2	0	2					
BPLCK24105/205C	BASICS OF JAVA PROGRAMMING(INTEGRATED)	2	0	2					
BPLCK24105/205D	ADVANCED PROGRAMMING IN C(INTEGRATED)	2	0	2					
BPLCK24105/205E	INTRODUCTION TO WEB PROGRAMMING	2	0	2					
BPLCK24105/205F	INTRODUCTION TO C++ PROGRAMMING	2	0	2					

CSE stream students shall opt for any course from ESC-I or ESC-II during the I or II semester except BESCK24104D/204D – Introduction to C programming (integrated)



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B.E. in ARTIFICIAL INTELLEGINCE & MACHINE LEARNING

Scheme of Teaching and Examinations (W.E.F AY 2024-2025)

III SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				
					Theory Lecture	Tutorial	Practical / Dev. Activity	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P	S					
1	PCC/BSC	BMATS24301	Discrete Mathematics	TD: HS PSB: Maths	3	0	0		03	50	50	100	3
2	IPCC	BAML24302	Operating System	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
3	IPCC	BAML24303	Digital Design & Computer Organization	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
4	PCC	BAML24304	Data Structures	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
5	PCCL	BAMLL24305	Data Structure Lab	TD: AIML PSB: AIML	0	0	2		03	50	50	100	1
6	ETC/PLC	BAML24306X	ETC/PLC	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
7	UHV	BSCK24307	Social Connect and Responsibility	Any Department	0	0	2		01	100	—	100	1
8	AEC/ SEC	BAI24358X	Ability Enhancement Course / Skill Enhancement Course - III	TD: AIML PSB: AIML	If the course is a Theory				01	50	50	100	1
					1	0	0						
					If a course is a laboratory				02				
					0	0	2						
9	MC	BNSK24359	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	—	100	0
		BPEK24359	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK24359	Yoga	Yoga Teacher									
		BLAK24359	Liberal Arts	Prominent NGO									
Total									550	350	900	20	

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,

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Hq.

SEE: Semester End Evaluation. K: This letter in the course code indicates common to all the stream of engineering. ESC: Engineering Science Course, ETC: Emerging Technology Course, PLC: Programming Language Course

Emerging Technology Course/Programming Language Course (ETC/PLC)

BAML24306A	Software Engineering	BAML24306C	Programming with C++
BAML24306B	Introduction to Internet of Things	BAML24306D	Web Application Frameworks
Ability Enhancement Course/Skill Enhancement Course – III			
BAML24358A	UNIX Shell Programming	BAML24358C	Project Management with Git
BAML24358B	Ethics & Public Policy of AI	BAML24358D	Data Analytics with R


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IV SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				
					Theory Lecture	Tutoria	Practic al	SDA	Duration In hours	CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P	S					
1	PCC/BSC	BMATS24401	Statistics, Probability and Graph Theory	TD: HS PSB: Maths	3	0	0		03	50	50	100	3
2	IPCC	BAML24402	Design & Analysis of Algorithms	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
3	PCC	BAML24403	Machine Learning Foundations &Techniques	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
4	PCC	BAML24404	Data Base Management System	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
5	PCCL	BAMLL24405	Data Base Management System Lab	TD: AIML PSB: AIML	0	0	2		03	50	50	100	1
6	ETC/PLC	BAML24406X	ETC/PLC	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
7	AEC/ SEC	BAML24457X	Ability Enhancement Course/Skill Enhancement Course- IV	TD and PSB: Concerned department	If the course is Theory				01	50	50	100	1
					1	0	0						
					If the course is a lab				02				
					0	0	2						
8	BSC	BBOK24407	Biology for Engineers	TD /PSB: BT, CHE,	1	0	0		01	50	50	100	1
9	UHV	BUHK24408	Universal human values	Any Department	1	0	0		01	50	50	100	1
10	MC	BNSK24459	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	—	100	0
		BPEK24459	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK24459	Yoga	Yoga Teacher									
		BLAK24459	Liberal Arts	Prominent NGO									

Total 550 450 1000 20

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

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Ability Enhancement Course / Skill Enhancement Course – IV

BAML24457A	AI Tools, frameworks & its Application -I	BAML24457C	PHP Programming
BAML24457B	Programming with Scala	BAML24457D	Full Stack Development using MERN
Emerging Technology Course/Programming Language Course (ETC/PLC)			
BAML24406A	Optimization Technique	BAML24406C	Object Oriented Programming with JAVA
BAML24406B	Foundation of Data Science	BAML24406D	Algorithmic Game theory


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Scheme of Teaching and Examinations (W.E.F AY 2024-2025)

V SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	HSMC	BAML24501	Engineering Economics and Management (This course must be pertaining to economics and management of the concerned degree program. The course syllabus should have both economics and management topics and the course title should bear the word Management.)	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
2	IPCC	BAML24502	Machine Learning Practices	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
3	PCC	BAML24503	Big data Analytics	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
4	PCCL	BAMLL24504	Big data Analytics LAB	TD: AIML PSB: AIML	0	0	2		03	50	50	100	1
5	PEC	BAML24505x	Professional Elective Course-I	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
6	AEC/ SEC	BAML24556x	Ability Enhancement Course/Skill Enhancement Course- V	TD: AIML PSB: AIML	If the course is Theory				01	50	50	100	1
					1	0	0						
					If the course is Lab				02				
					0	0	2						
7	PROJ	BAMLP24507	Mini Project	TD: AIML PSB: AIML	0	0	4		03	100	-	100	2
8	AEC	BRMK24557	Research Methodology and IPR	TD: AIML PSB: AIML	2	2	0		03	50	50	100	3
9	MC	BESK24508	Environmental Studies		1	0	0		01	100	-	100	0
10	MC	BNSK24559	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	-	100	0
		BPEK24559	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK24559	Yoga	Yoga Teacher									
		BLAK24559	Liberal Arts	Prominent NGO									
Total									650	350	1000	20	

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Professional Elective Course-I

BAML24505A	Cloud Computing	BAML24505C	Time series Analysis
BAML24505B	Computer Networks & Security	BAML24505D	Sensors & Systems
Ability Enhancement Course/Skill Enhancement Course- V			
BAML24556A	UI/UX	BAML24556C	Mobile Application Development
BAML24556B	MongoDB	BAML24556D	Data Visualization using Tableau


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Scheme of Teaching and Examinations (W.E.F AY 2024-2025)

VI SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	IPCC	BAML24601	Natural Language Processing	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
2	PCC	BAML24602	Deep Learning Principles & Practices	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
3	PCC	BAML24603	Microcontroller	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
4	PEC	BAML24604x	Professional Elective Course-II	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
5	OEC	BAML24605x	Open Elective Course-I	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
6	PROJ	BAMLP24606	Project Phase-I	TD: AIML PSB: AIML	0	0	4		03	100	—	100	2
7	PCCL	BAMLL24607	Deep Learning Lab	TD: AIML PSB: AIML	0	0	2		03	50	50	100	1
8	AEC/SDC	BAML24657x	Ability Enhancement Course/Skill Development Course-VI (Online)	TD: AIML PSB: AIML	If the course is offered as a Theory				01	50	50	100	1
					1	0	0						
					If course is offered as a practical				02				
					0	0	2						
9	IKS	BIKS24608	Indian Knowledge System		1	0	0		01	100	---	100	0
10	MC	BNSK24659	National Service Scheme (NSS)	NSS coordinator	0	0	2			100	---	100	0
		BPEK24659	Physical Education (PE) (Sports and Athletics)	Physical Education Director									
		BYOK24659	Yoga	Yoga Teacher									
		BLAK24659	Liberal Arts	Prominent NGO									
Total										650	350	1000	20

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Professional Elective Course-II			
BAML24604A	Parallel & Distributed Computing	BAML24604C	Large Language Model
BAML24604B	Cryptography	BAML24604D	Augment Reality and Virtual Reality
Open Elective Course-I			
BAML24605A	Next-Gen Database Technology using MongoDB	BAML24605C	Introduction to Machine Learning
BAML24605B	Foundation of Data Science	BAML24605D	JavaScript Programming
Ability Enhancement Course / Skill Development Course-VI			
BAML24657A	AI Tools, frameworks & its Application -II	BAML24657C	Business Intelligence using PowerBI
BAML24657B	Explainable AI	BAML24657D	Generative AI


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VII SEMESTER (Swappable VII and VIII SEMESTER)

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	IPCC	BAML24701	Image Analytics with Computer Vision	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
2	IPCC	BAML24702	Advance Natural Language Processing	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
3	PCC	BAML24703	Quantum Computing	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
4	PEC	BAML24704x	Professional Elective Course / (Online)-III	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
5	OEC	BAML24705x	Open Elective Course /(online)-II	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
6	PROJ	BAMLP24706	Major Project Phase-II	TD: AIML PSB: AIML	0	0	14		03	100	100	200	7
										350	350	700	24

Professional Elective Course-III

BAML24704A	Data Mining & Data warehousing	BAML24704C	Reinforcement Learning
BAML24704B	Data Security & Privacy	BAML24704D	Robotics

Open Elective Course-II

BAML24705A	Python Libraries for AI&ML	BAML24705C	Introduction to Sensor and IoT
BAML24705B	Web designing Tools & Frameworks	BAML24705D	Information Security

PCC: Professional Core Course, **PCCL:** Professional Core Course laboratory, **PEC:** Professional Elective Course, **OEC:** Open Elective Course **PR:** Project Work, **L:** Lecture, **T:** Tutorial, **P:** Practical **S= SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation. **TD-** Teaching Department, **PSB:** Paper Setting department, **OEC:** Open Elective Course, **PEC:** Professional Elective Course. **PROJ:** Project work

Note: VII and VIII semesters of IV years of the program

(1) Institutions can swap the VII and VIII Semester Schemes of Teaching and Examinations to accommodate research internships/ industry internships after the VI semester.

(2) Credits earned for the courses of VII and VIII Semester Scheme of Teaching and Examinations shall be counted against the corresponding semesters whether the VII or VIII semesters is completed during the beginning of the IV year or the later part of IV years of the program.



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VIII SEMESTER (Swappable VII and VIII SEMESTER)

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PEC	BAML24801x	Professional Elective (Online Courses)-IV	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
2	PEC	BAML24802x	Professional Elective (Online Courses)-V	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
3	INT	BAML24803	Internship (Industry/Research) (14 - 20 weeks)	TD: AIML PSB: AIML	0	0	12		03	100	100	200	10
										200	200	400	16

Professional Elective Course (Online courses)-IV

BAML24801A High Performance Computing

BAML24801C Edge AI

BAML24801B Block Chain

BAML24801D Fault & Predictive Analysis

Professional Elective Course (Online courses)-V

BAML24802A Business Intelligence

BAML24802C Introduction to Robotics.

BAML24802B Soft Computing

BAML24802D Human Computer Interaction

L: Lecture, **T:** Tutorial, **P:** Practical **S= SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation. **TD-** Teaching Department, **PSB:** Paper Setting department, **OEC:** Open Elective Course, **PEC:** Professional Elective Course. **PROJ:** Project work, **INT:** Industry Internship / Research Internship / Rural Internship

Note: VII and VIII semesters of IV years of the program

Swapping Facility

- Institutions can swap VII and VIII Semester Scheme of Teaching and Examinations to accommodate **research internships/ industry internships/Rural Internship** after the VI semester.
- Credits earned for the courses of VII and VIII Semester Scheme of Teaching and Examinations shall be counted against the corresponding semesters whether VII or VIII semester is completed during the beginning of IV year or later part of IV year of the program.

Elucidation:

At the beginning of IV years of the program i.e., after VI semester, VII semester classwork and VIII semester **Research Internship /Industrial Internship / Rural Internship** shall be permitted to be operated simultaneously by the University so that students have ample opportunity for an internship. In other words, a good percentage of the class shall attend VII semester classwork and a similar percentage of others shall attend to Research Internship or Industrial Internship or Rural Internship.

Research/Industrial /Rural Internship shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation centre, Start-up, centre of Excellence (CoE), Study Centre established in the parent institute and /or at reputed research organizations/institutes.

The mandatory Research internship /Industry internship / Rural Internships for 14 to 20 weeks. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those, who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent University examination after satisfying the internship requirements.

Research internship: A research internship is intended to offer the flavor of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

Industry internship: Is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.

Rural Internship: Rural development internship is an initiative of Unnat Bharat Abhiyan Cell, RGIT in association with AICTE to involve students of all departments studying in different academic years for exploring various opportunities in techno-social fields, to connect and work with Rural India for their upliftment.

The faculty coordinator or mentor has to monitor the student's internship progress and interact with them to guide for the successful completion of the internship.

The students are permitted to carry out the internship anywhere in India or abroad. University shall not bear any expenses incurred in respect of the internship.

With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (**within or outside the state or abroad**), provided favorable facilities are available for the internship and the student remains regularly in contact with the internal guide. **University shall not bear any cost involved in carrying out the internship by students.** However, students can receive any financial assistance extended by the organization.

Professional Elective /Open Elective Course: These are ONLINE courses suggested by the respective Board of Studies. Details of these courses shall be made available for students on the VTU web portal.


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VI SEMESTER(A)																
Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Teaching Hours /Week				Examination				Credits			
					Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks				
					L	T	P	S								
1	IPCC	BAML24601	Natural Language Processing	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4			
2	PCC	BAML24602	Deep Learning Principles & Practices	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3			
3	PCC	BAML24603	Microcontroller	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3			
4	PEC	BAML24604x	Professional Elective Course-II	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3			
5	OEC	BAML24605x	Open Elective Course-I	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3			
6	PROJ	BAMLP24606	Project Phase-I	TD: AIML PSB: AIML	0	0	4		03	100	--	100	2			
7	PCCL	BAMLL24607	Deep Learning Lab	TD: AIML PSB: AIML	0	0	2		03	50	50	100	1			
8	AEC/SDC	BAML24657x	Ability Enhancement Course/Skill Development Course-VI	TD: AIML PSB: AIML	If the course is offered as a Theory				01	50	50	100	1			
					1	0	0		If course is offered as a practical							
					0	0	2									
9	IKS	BNSK24608	Indian Knowledge System	Any Department	1	0	0		01	100	--	100	0			
10	MC	BPEK24659	National Service Scheme (NSS)	NSS coordinator	0	0	2	--	---	100	---	100	0			
		BYOK24659	Physical Education (PE) (Sports and Athletics)	Physical Education Director												
		BLAK24659	Yoga	Yoga Teacher												
		BIKS24659	Liberal Arts	Prominent NGO												
									Total				650	350	1000	20

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Professional Elective Course-II			
BAML24604A	Parallel & Distributed Computing	BAML24604C	Large Language Model
BAML24604B	Cryptography	BAML24604D	Augment Reality and Virtual Reality
Open Elective Course-I			
BAML24605A	Next-Gen Database Technology using MongoDB	BAML24605C	Introduction to Machine Learning
BAML24605B	Foundation of Data Science	BAML24605D	JavaScript Programming
Ability Enhancement Course / Skill Development Course-VI			
BAML24657A	AI Tools, frameworks & its Application -II	BAML24657C	Business Intelligence using PowerBI
BAML24657B	Explainable AI	BAML24657D	Generative AI


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VII and VIII semesters for the candidate those who seek an internship with project work (A)

Sl. No	Course	Course Code	Course Title	Teaching Department (TD) and Question	Teaching Hours /Week				Examination				Credits
					Theory Lect	Tutorial	Practical	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	IPCC	BAML24701	Image Analytics with Computer Vision /To be completed in 5 th /6 th semester	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
2	IPCC	BAML24702	Advance Natural Language Processing /To be completed in 5 th /6 th semester	TD: AIML PSB: AIML	3	0	2		03	50	50	100	4
3	PCC	BAML24703	Quantum Computing / To be completed in the 6 th semester	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
4	PEC	BAML24704x	Professional Elective Course/Online III	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
5	OEC	BAML24705x	Open Elective Courses/Online II	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
1	PEC	BAML24801x	Professional Elective (MOOC Courses) IV	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
2	PEC	BAML24802x	Professional Elective (MOOC Courses) V	TD: AIML PSB: AIML	3	0	0		03	50	50	100	3
3	INT	BAML24803	Internship (Industry/Research) (02 semesters)	TD: AIML PSB: AIML	0	0	12		03	100	100	200	10
4	PROJ	BAMLP24804	Major Project II - outcome of training	TD: AIML PSB: AIML	0	0	14		03	100	100	200	7
										550	550	1100	40

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Professional Elective Course-III

BAML24704A	Data Mining & Data warehousing	BAML24704C	Reinforcement Learning
BAML24704B	Data Security & Privacy	BAML24704D	Robotics
Open Elective Course-II			
BAML24705A	Python Libraries for AI&ML	BAML24705C	Introduction to Sensor and IoT
BAML24705B	Web designing Tools & Frameworks	BAML24705D	Information Security

Professional Elective Course (Online courses)-IV

BAML24801A	High Performance Computing	BAML24801C	Edge AI
BAML24801B	Block Chain	BAML24801D	Fault & Predictive Analysis
Professional Elective Course (Online courses)-V			
BAML24802A	Business Intelligence	BAML24802C	Introduction to Robotics.
BAML24802B	Soft Computing	BAML24802D	Human Computer Interaction


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