KOLHAPUR INSTITUTE
OF TECHNOLOGY'S
COLLEGE OF
ENGINEERING
(AUTONOMOUS),
KOLHAPUR

Structure for

B.Tech in

Computer Science & Engineering (AIML)

(To be Implemented w.e.f. Academic Year 2022-23)

Department of Computer Science & Engineering (AIML)

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur,
Maharashtra, INDIA

Dr. U. P. Gurav
Head, Department of CSE(AIML)

Prof. A. S. Patil
Dean Academics

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
Second Year B. Tech. Program in Computer Science & Engineering (AIML) Semester-III

Course Code	Course Name	Curriculum Component	Hours/Week				Evaluation Scheme			
			L	T	P	Credits	Component	Marks		
								Max	Min for Passing	
UAMC0301	Linear Algebra	BS	3	1	-	4	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0302	Discrete Mathematics	ES	3	1	-	4	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0303	Data Structures	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0304	Principles of AIML	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0305	Object Oriented Programming	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0306	Software Engineering	ES	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10	20	
							ESE	50		
UAMC0331	Data Structures-Lab	PC	-	-	2	1	ISE	25	10	30
							ESE (POE)	50	20	
UAMC0332	Object Oriented Programming-Lab	PC	-	-	2	1	ISE	25	10	30
							ESE (POE)	50	20	
UAMA0361	Constitution of India	Audit Course	2	-	-	-	ESE	100	40	
								750		
			20	2	4	22	600 + 150 = 750 + Audit Course			

Total Credits - 22, Total Contact hours – 26

Second Year B. Tech. Program in Computer Science & Engineering (AIML) Semester-IV

Course Code	Course Name	Curriculum Component	L	T	P	Credits	Component	Max	Min for Passing	
									Marks	
UAMC0401	Statistical and Probability Theory	BS	3	1	-	4	ISE I	10		
							MSE	30	20	40
							ISE II	10		
							ESE	50	20	
UAMC0402	Automata Theory	ES	3	1	-	4	ISE I	10		
							MSE	30	20	40
							ISE II	10		
							ESE	50	20	
UAMC0403	Computer Networks	PC	3	-	-	3	ISE I	10		
							MSE	30	20	40
							ISE II	10		
							ESE*	50	20	
UAMC0404	Computer Organization and Digital Logic	PC	3	1	-	4	ISE I	10		
							MSE	30	20	40
							ISE II	10		
							ESE	50	20	
UAMC0405	Principles of Data Science	PC	3	-	-	3	ISE I	10		
							MSE	30	20	40
							ISE II	10		
							ESE	50	20	
UAMC0431	Computer Networks-Lab	PC	-	-	2	1	ISE	25	10	20
							ESE(OE)	25	10	
UAMC0432	Data Analytics and Visualization-Lab	PC	-	-	2	1	ISE	25	10	30
							ESE (POE)	50	20	
UAMC0433	AI and DS Tools- Lab	PC	-	-	2	1	ISE	25	10	30
							ESE (POE)	50	20	
UAMC0451	Mini Project – I	PW	-	-	2	1	ISE-I	25	20	
							ISE-II	25		
UAMA0461	Environmental Studies	Audit Course	2	-	-	-	ESE	100	40	
								750		
			17	3	8	22	500 + 250 = 750 + Audit Course			

Total Credits - 22, Total Contact hours – 28

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for

Third Year B. Tech. Program in Computer Science & Engineering (AIML)Semester-V

Course Code	Course Name	Curriculum Component	L	T	P	Credits	Component	Max	Min for Passing	
UAMC0501	Operating System	PC	3	1	-	4	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0502	Database Management System	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0503	Machine Learning	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAME05**	Program Elective - I	PE	3		-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMO05**	Open Elective - I	OE	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0531	Database Management System lab	PC	-	-	2	1	ISE	25	10	30
							ESE(POE)	50	20	
UAMC0532	Machine Learning Lab	PC	-	-	2	1	ISE	25	10	20
							ESE (OE)	25	10	
UAMC0533	Web Technology Lab	PC	2	-	2	3	ISE	25	10	30
							ESE (POE)	50	20	
UAMC0551	Mini Project-II	PW	-	-	2	1	ISE-I	25	20	
							ISE-II	25		
UAMA0561	Software Systems Tools	Audit Course	2	-	-	-	ISE-I	50	40	
							ISE-II	50		
								750		
			19	1	8	22	500 + 250 = 750 + Audit Course			

Total Credits - 22, Total Contact hours – 28

Program Elective – I (PE-I)		Open Elective – I (OE-I)	
UAME0521	Information Security System	UAMO0511	Introduction to AI and ML
UAME0522	Project Management	UAMO0512	Python Programming Applications
UAME0523	Internet of Things		

Dr. Uma P. Gurav
Head
Department of CSE (AIML & DS)
KIT's College of Engg (Autonomous)
Kolhapur

4

Third Year B. Tech. Program in Computer Science & Engineering(AIML)Semester-VI

Course Code	Course Name	Curriculum Component	Teaching Scheme				Evaluation Scheme			
			L	T	P	Credits	Components	Marks		
								Max	Min for Passing	
UAMC0601	Big Data Analytics	PC	3	1	-	4	ISE-I	10		40
							ISE-II	10	20	
							MSE	30		
							ESE	50	20	
UAMC0602	Design and Analysis of Algorithms	PC	3	1	-	4	ISE-I	10		40
							ISE-II	10	20	
							MSE	30		
							ESE	50	20	
UAMC0603	Deep Learning	PC	3	-	-	3	ISE-I	10		40
							ISE-II	10	20	
							MSE	30		
							ESE	50	20	
UAME06**	Program Elective - II	PE	3	-	-	3	ISE-I	10		40
							ISE-II	10	20	
							MSE	30		
							ESE	50	20	
UAMO06**	Open Elective - II	OE	3	-	-	3	ISE-I	10		40
							ISE-II	10	20	
							MSE	30		
							ESE	50	20	
UAMC0631	Advanced Programming Lab.	PC	1	-	2	2	ISE	25	10	30
							ESE(POE)	50	20	
UAME063*	Program Elective Lab-II	PC	-	-	2	1	ISE	25	10	30
							ESE (POE)	50	20	
UAMC0632	Deep learning Lab	PC	-	-	2	1	ISE	25	10	20
							ESE (OE)	25	10	
UAMC0651	Mini Project - III	PW	-	-	2	1	ISE-I	25	20	
							ISE-II	25		
UAMA0661	Intellectual Properties Rights	Audit Course	2	-	-	-	ESE	100	40	
								750		
			18	2	8	22	500 + 250 = 750 + Audit Course			

Total Credits - 22, Total Contact hours – 28

Program Elective – II (PE-II)		Open Elective – II (OE-II)	
UAME0621	Advanced Database System	UAMO0613	IoT Analytics
UAME0633	Advanced Database System-Lab	UAMO0614	Introduction to Big Data Analytics
UAME0622	STQA		
UAME0634	STQA-Lab		
UAME0623	Business Intelligence System		
UAME0635	Business Intelligence System-Lab		

5

Dr. Uma P. Gurav
Head
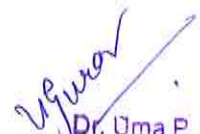Department of CSE (AIML & DS)
KIT's College of Engg. (Autonomous)
Kolhapur

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for

Final Year B. Tech. Program in Computer Science & Engineering(AIML) Semester-VII

Course Code	Course Name	Curriculum Component	Teaching Scheme				Evaluation Scheme			
			L	T	P	Credits	Components	Max	Min for Passing	
UAMC0701	Natural Language Processing	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0702	Computer Vision	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0703	Cloud Computing	PC	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE *	50	20	
UAMC0704	Optimization for Machine Learning	PC	3	1	-	4	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAME07**	Program Elective - III	PE	3	-	-	3	ISE I	10	20	40
							MSE	30		
							ISE II	10		
							ESE	50	20	
UAMC0731	Mobile App Development-lab	PC	-	-	2	1	ISE	25	10	30
							ESE(POE)	50	20	
UAMC0732	Natural Language Processing-Lab	PC	-	-	2	1	ISE	25	10	30
							ESE (OE)	50	20	
UAMC0751	Project Phase - I	PW	-	-	4	2	ISE-I	50	20	40
							ISE-II	50	20	
UAMA0761	Project Management Tools	Audit Course	2	-	-	-	ISE-I	50	40	
							ISE-II	50		
			15	1	8	20	500 + 250 = 750 + Audit Course			

Total Credits – 20, Total Contact hours – 24

Sr. No.	Program Elective III (PE-III)
UAME0721	Fundamentals of Robotics
UAME0722	Time Series Analysis
UAME0723	Nature Inspired Computing
UAME0724	BlockChain

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for

Final Year B. Tech. Program in Computer Science & Engineering(AIML) Semester-VIII

Course Code	Course Name	Curriculum Component	L	T	P	Credits	Components	Max	Min for Passing	
									Marks	
UAMC0851	Project Phase - II	PW	-	-	8	4	ISE I	50	40	40
							ISE II	50		
							ESE(OE)	100	40	
UAMC0852	Internship	PW	-	-	4	2	ISE-I	50	20	40
							ISE-II	50	20	
UAME08**	Program Elective - IV	PE	3	-	-	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
UAME08**	Program Elective - V	PE	3	-	-	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
			6	-	12	12	200 + 100 + 200 = 500			

Total Credits-12, Total Contact hours – 18

Program Elective – IV (PE-IV)		Program Elective – V (PE-V)	
UAME0821	Security Scripting and Analysis	UAME0824	Intelligent Transportation System
UAME0822	Social Media and Digital Marketing Analysis	UAME0825	Computational Method for Image Processing
UAME0823	AI Healthcare	UAME0826	Web Analytics

Dr. Uma P. Gurav
Head
Department of CSE (AIML & DS)
KIT's College of Engg. (Autonomous)
Kolhapur

7

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
B. Tech. Program in Computer Science and Engineering(AIML)

Total Credits Distribution from F.Y.B.Tech to Final Year B.Tech in Computer Science & Engineering (AIML)

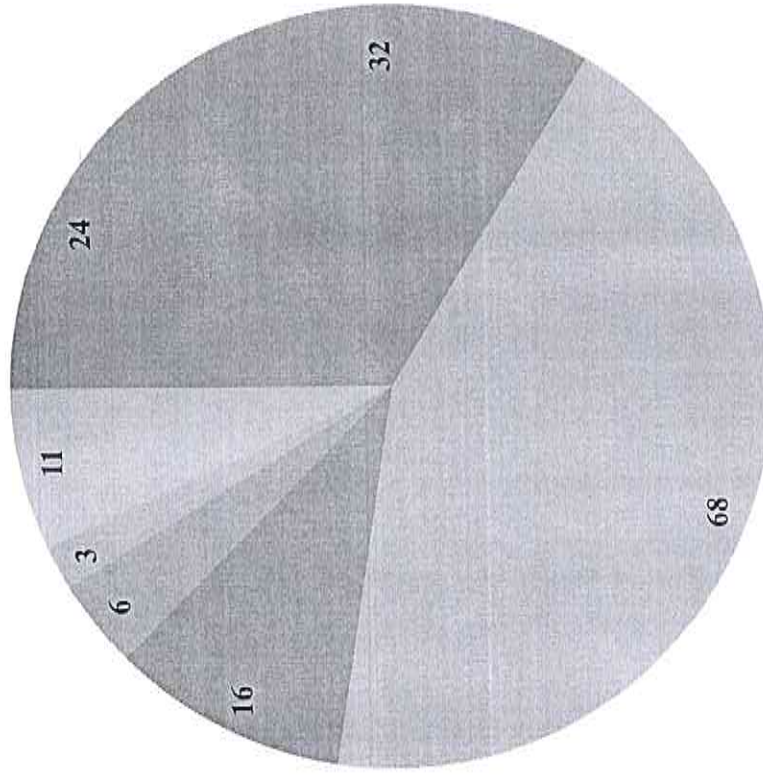| Component	F.Y.B.Tech		S.Y.B.Tech		T.Y.B.Tech		Final Year B.Tech		Total Credits	Percentage Distribution
	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Sem VII	Sem VIII		
Basic Sciences (BS)	8	8	4	4	-	-	-	-	24	15.00
Engineering Sciences (ES)	9	12	7	4	-	-	-	-	32	20.00
Program Core (PC)	-	-	11	13	15	14	15	-	68	42.50
Program Elective (PE)	-	-	-	-	3	4	3	6	16	10.00
Open Elective (OE)	-	-	-	-	3	3	-	-	6	3.75
Mandatory Audit Course (MAC)	UHV	ED	CI	EVS	SS	IPR	PMT	-	Non-Credit Courses	-
Humanities (HS)	3	-	-	-	-	-	-	-	3	1.88
Project Work (PW)	-	-	-	1	1	1	2	4+2	11	6.88
Total Credits	20	20	22	22	22	22	20	12	160	100.00

Note for Mandatory Audit Courses (MAC):

UHV: Universal Human Values (HS), ED: Entrepreneurship Development (HS), EVS: Environmental Studies (BS), CI: Constitution of India (HS),

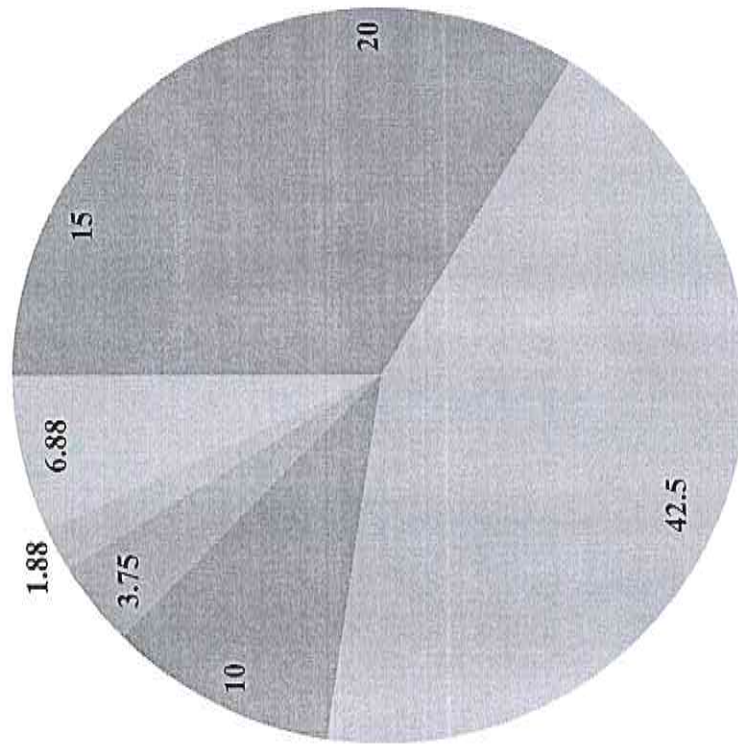SS: Software Systems (PC), IPR: Intellactual Property Rights (HS), PMT: Project Management Tools (PC)

Dr. Uma P. Gurav
Head
Department of CSE (AIML & DS)
KIT's College of Engg. (Autonomous)

Total Credits Distribution from F.Y.B.Tech to Final Year B.Tech in Computer Science & Engineering(AIML)

- Basic Sciences (BS)
- Engineering Sciences (ES)
- Program Core (PC)
- Program Elective (PE)
- Open Elective (OE)
- Humanities (HS)
- Project Work (PW)

32

24

11

3

6

16

68

Dr. Uma P. Gurav
Head
Department of CSE (AIML & DS)
KIT's College of Engg. (Autonomous,
Kolhapur

Total Credits (%) Distribution from F.Y.B.Tech to Final Year B.Tech in Computer Science & Engineering(AIML)

- Basic Sciences (BS)
- Engineering Sciences (ES)
- Program Core (PC)
- Program Elective (PE)
- Open Elective (OE)
- Humanities (HS)
- Project Work (PW)

20

15

6.88

1.88

3.75

10

42.5

Dr. Uma P. Gurav
Head
Department of CSE (AIML & DS)
KIT's College of Engg. (Autonomous)
Kolhapur