

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)
COIMBATORE – 641 029

Programme Name: **B.Sc. Artificial Intelligence and Machine Learning**

Curriculum and Scheme of Examination under CBCS

(Applicable to the students admitted during the Academic Year 2025-2026)

Semester	Part	Subject Code	Title of the Paper	Instruction hours/cycle	Exam. Marks			Duration of Exam (hours)	Credits
					CIA	ESE	TOTAL		
I	I	25TML101	Language I@	6	25	75	100	3	3
	II	25ENG101	English - I	6	25	75	100	3	3
	III	25UAI101	Core Paper 1 - C and C++ Programming	5	25	75	100	3	4
	III	25UAI1CL	Core Practical 1 - C and C++ Programming Lab	5	40	60	100	3	2
	III	25UAI1A1	Allied Paper 1 - Discrete Mathematics and Statistics	6	25	75	100	3	5
	IV	25EVS101	Environmental Studies **	2	-	50	50	3	2
	Total			30	-	-	550	-	19
II	I	25TML202	Language II@	6	25	75	100	3	3
	II	25ENG202	English – II	6	25	75	100	3	3
	III	25UAI202	Core Paper 2 - Java Programming	5	25	75	100	3	4
	III	25UAI2CM	Core Practical 2 - Java Programming Lab	5	40	60	100	3	2
	III	25UAI2A2	Allied Paper 2 - Optimization Techniques and Linear Algebra	6	25	75	100	3	5
	IV	25VED201	Value Education- Moral and Ethics**	2	-	50	50	3	2
	Total			30	-	-	550	-	19
III	I	25TML303	Language III@	6	25	75	100	3	3
	II	25ENG303	English –III	6	25	75	100	3	3
	III	25UAI303	Core Paper 3 - Python Programming	4	25	75	100	3	4
	III	25UAI3CN	Core Practical 3 - Python Programming Lab	4	40	60	100	3	4
	III	25UAI 3A3	Allied Paper 3 - Foundations of Robotics	6	25	75	100	3	5
	IV	25UGC3S1	Skill Based subject 1- Cyber Security	2	100	-	100	3	3
	IV	25TBT301/ 25TAT301/ 25UHR3N1	Basic Tamil* / Advanced Tamil**/Non-major elective- I**	2	-	75	75	3	2
	Total			30	-	-	675	-	24

IV	I	25TML404	Language IV@	6	25	75	100	3	3
	II	25ENG404	English – IV	6	25	75	100	3	3
	III	25UAI404	Core Paper 4 - R Programming	4	25	75	100	3	4
	III	25UAI4CO	Core Practical 4 - R Programming Lab	4	40	60	100	3	3
	III	25UAI4A4	Allied Paper 4 - Big Data Analytics	6	25	75	100	3	5
	IV	25UAI4S2	Skill Based subject 2 - Ethical Hacking	2	25	75	100	3	3
	IV	25TBT402/ 25TAT402/ 25UWR4N2	Basic Tamil* / Advanced Tamil**/ Non-major elective- II**	2	-	75	75	3	2
	Total			30	-	-	675	-	23
V	III	25UAI505	Core Paper 5 - Machine Learning Techniques	6	25	75	100	3	5
	III	25UAI506	Core Paper 6 - Introduction to Artificial Intelligence and Machine Learning	6	25	75	100	3	4
	III	25UAI507	Core Paper 7 - Deep Learning	6	25	75	100	3	4
	III	25UAI5CP	Core Practical 5 - Machine Learning Lab	5	40	60	100	3	4
	III	25UAI5E1	Major Elective Paper 1	5	25	75	100	3	5
	IV	-	EDC	2	100	-	100	3	3
	-	25UAI5IT	Internship Training ****	Grade					
	Total			30	-	-	600	-	25
VI	III	25UAI608	Core Paper 8 - Natural Language Processing	5	25	75	100	3	4
	III	25UAI609	Core Paper 9 - Block Chain Technology	4	25	75	100	3	4
	III	25UAI610	Core Paper 10 - Artificial Neural Networks and Fuzzy Logic	5	25	75	100	3	4
	III	25UAI6CQ	Core Practical 6 - Natural Language Processing Lab	5	40	60	100	3	4
	III	25UAI6E2	Major Elective Paper 2	5	25	75	100	3	5
	III	25UAI6Z1	Project and Viva Voce***	4	20	80	100	-	5
	IV	25UBI6S3	Skill Based subject 3- Basics of IPR	2	100	-	100	3	3
	Total			30	-	-	700	-	29
	V	25NCC \$ / NSS/YRC /PYE/ECC/ RRC/WEC1 01#	Cocurricular Activities*	-	50	-	50	-	1
Grand Total				-	-	-	3800	-	140

Note :

CBCS – Choice Based Credit system, CIA– Continuous Internal Assessment, ESE– End of Semester Examinations

\$ For those students who opt NCC under Cocurricular activities will be studying the prescribed syllabi of the UGC which will include Theory, Practical & Camp components. Such students who qualify the prescribed requirements will earn an additional 24 credits.

@ Hindi/Malayalam/ French/ Sanskrit – 25HIN/MLM/FRN/SAN101 - 404

* - No End-of-Semester Examinations. Only Continuous Internal Assessment (CIA)

** - No Continuous Internal Assessment (CIA). Only End-of-Semester Examinations (ESE)

*** Project Report – 60 marks; Viva voce – 20 marks; Internal-20 marks

**** The students shall undergo Internship training / field work for a minimum period of 14 working days at the end of the fourth semester during summer vacation and submit the report in the fifth semester which will be evaluated for 100 marks by the concerned guide and followed by an Internal Viva voce by the respective faculty or HOD as decided by the department. According to their marks, the grades will be awarded as given below.

Marks %	Grade
85 – 100	O
70 – 84	D
60 – 69	A
50 – 59	B
40 – 49	C
< 40	U (Reappear)

Major Elective Papers (2 papers are to be chosen from the following 10 papers)

1. Internet of Things
2. Open Source Systems
3. Digital Forensics
4. Data Analytics and Visualization
5. Virtual Reality
6. Artificial Intelligence in Cyber Security
7. Design Thinking
8. Image and Speech Processing
9. Database Management System
10. Data Mining and Warehousing

Non-Major Elective Papers

1. Human Rights
2. Women's Rights
3. Consumer Affairs

Sub. Code & Title of the Extra Departmental Course (EDC) :

25UAI5XL – Fundamentals of Internet and Web Design Lab

List of Cocurricular Activities:

1. National Cadet Corps (NCC)
2. National Service Scheme (NSS)
3. Youth Red Cross (YRC)
4. Physical Education (PYE)
5. Eco Club (ECC)
6. Red Ribbon Club (RRC)
7. Women Empowerment Cell (WEC)

Note: In core/ allied subjects, no. of papers both theory and practical are included wherever applicable. However, the total credits and marks for core/allied subjects remain the same as stated below.

Tally Table:

S.No.	Part	Subject	Marks	Credits
1.	I	Language – Tamil/Hindi/Malayalam/ French/ Sanskrit	400	12
2.	II	English	400	12
3.	III	Core – Theory/Practical	1600	60
	III	Allied	400	20
		Electives/Project	300	15
4.	IV	Basic Tamil / Advanced Tamil (OR) Non-major electives	150	4
		Skill Based subject	300	9
		EDC	100	3
		Environmental Studies	50	2
		Value Education	50	2
5.	V	Cocurricular Activities	50	1
		Total	3800	140

- 25 % CIA is applicable to all subjects except JOC, COP and SWAYAM courses which are considered as extra credit courses.
 - 100 % CIA for Cyber Security, EDC and Basics of IPR.
 - The students should complete **Health and Wellness Programme (25UHW401)###** in the 4th semester and the completion marks should be submitted through the HOD to the Controller of Examinations. Extra credits will be given to the candidates who have successfully completed.
 - The students should complete any **MOOC course available for Online learning platforms like SWAYAM, NPTEL, Course era^{\$\$}, IIT Bombay Spoken Tutorial, e-Pathshala etc.**, with a minimum of 4 weeks in duration before the completion of the 5th semester and the course completion certificate should be submitted through the HOD to the Controller of Examinations. Extra credits will be given to the candidates who have successfully completed.
- \$\$Note:** One course to be taken from course era for all the under graduate students of self finance stream during the even semester of the I year. Appropriate extra credits and certification as applicable shall be awarded to the students who have completed the course.
- An **Onsite Training** preferably relevant to the course may be undertaken as per the discretion of the HOD.
 - Students who successfully complete **Naan Mudhalvan** courses in 3rd and 5th semester will be given 2 extra credits for each course. They are asked to submit the marks to Controller of Examinations through and undersigned by the HOD.

Semester	Naan Mudhalvan Course Title
III	AWS Academy Introduction to Cloud: Semester 1
V	AWS Academy Introduction to Cloud: Semester 2

Components of Continuous Internal Assessment

Components		Marks	Total
Theory			
CIA I	75	(75+75 = 150/10)	25
CIA II	75		
Assignment/Seminar		5	
Attendance		5	
Practical			
CIA Practical		25	40
Observation Notebook		10	
Attendance		5	
Project			
Review		15	20
Regularity		5	

BLOOM'S TAXONOMY BASED ASSESSMENT PATTERN

K1-Remembering; **K2**-Understanding; **K3**-Applying; **K4**-Analyzing; **K5**-Evaluating

1. ESE Theory Examination:

(i) CIA I & II and ESE: 75 Marks

Knowledge Level	Section	Marks	Description	Total
K1 Q1 to 10	A (Answer all)	10 x 1 = 10	MCQ	75
K1 – K5 Q11 to 15	B (Either or pattern)	5 x 5 = 25	Short Answers	
K2 – K5 Q16 to 20	C (Either or pattern)	5 x 8 = 40	Descriptive / Detailed	

2. ESE Practical Examination:

Knowledge Level	Section	Marks	Total
K3	Experiments	50	60
K4		10	
K5	Record Work		

3. ESE Project Viva Voce:

Knowledge Level	Section	Marks	Total
K3	Project Report	60	80
K4	Viva voce	20	
K5			

Scheme of Evaluation - Health and Wellness Programme (25UHW401)###

Part	Description	Mark
A	Report	40
B	Attendance	20
C	Activities (Observation during Practice)	40
Total		100