

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



DEPARTMENT OF INFORMATION TECHNOLOGY (UG)
Certificate Course in Artificial Intelligence and Machine
Learning

COURSE OUTCOMES (CO)

For the students admitted in
the Academic Year 2021-2022

Programme Code :12		CERTIFICATE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING		
Course Code: 21CAI101		Core Paper I – Python and R Programming		
Batch	Semester	Hours / Week	Total Hours	Credits
2021-2022	I	3	45	2

Course Objectives

1. To introduce the fundamentals of Python Programming.
2. To import the knowledge of Lists, Tuples, Files and Directories.
3. To expose the student to the fundamental concepts of R Programming.

Course Outcomes (CO)

K1 to K5	CO1	Remembering the concept of operators, data types, Looping statements in python programming.
	CO2	Understanding the structures of list, tuples, maintaining dictionaries and exception handling.
	CO3	Applying the concept of functions data frames and tables using R programming.
	CO4	Analyzing the concept of classes and graphics using R programming.
	CO5	Evaluate a program incorporating all the python and R programming from a statistical perspective.

Programme Code :12		CERTIFICATE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING		
Course Code: 21CAI102		Core Paper II – Machine Learning		
Batch	Semester	Hours / Week	Total Hour	Credits
2021-2022	I	3	45	2

Course Objectives

1. To explain about the basics of machine learning.
2. To introduce students to the concepts and techniques of Machine Learning.
3. To expose about tree and unsupervised learning.

Course Outcomes (CO)

K1 to K5	CO1	Remembering the fundamental issues and challenges of machine learning: data, model selection, model complexity, etc.
	CO2	Understand the strengths and weaknesses of many popular machine learning approaches.
	CO3	Analyze the inference and learning algorithms for the hidden Markov model.
	CO4	Apply the concepts of computational learning theory and dimensionality reduction.
	CO5	Evaluate the underlying mathematical relationships within and across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.

Programme Code :		CERTIFICATE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING		
Course Code: 21CAI103		Core Paper III – Artificial Intelligence & Knowledge Representation		
Batch	Semester	Hours / Week	Total Hours	Credits
2021-2022	I	3	45	2

Course Objectives

1. To expose the student to the fundamental concepts of Artificial Intelligence and its applications.
2. To introduce the concepts of Knowledge Representation and AI concepts.
3. To apply basic principles of AI in solutions that require problem solving.

Course Outcomes (CO)

K1 to K5	CO1	Remembering the fundamental understanding of the history of artificial intelligence (AI) and its foundations.
	CO2	Understanding about the basic concepts of Software agents and representation of knowledge.
	CO3	Analyze the various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.
	CO4	Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
	CO5	Evaluate and apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.

Programme Code :		CERTIFICATE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING		
Course Code: 21CAI1CL		Core Practical I – Python and R Programming Lab		
Batch	Semester	Hours / Week	Total Hours	Credits
2021-2022	I	3	45	2

Course Objectives

1. To gain knowledge about the concepts of python programming.
2. To understand the concepts of Built-in functions and User-defined functions.
3. To develop programs using String functions.

Course Outcomes (CO)

K3 to K5	CO1	Implement the concepts of built-in functions in python programming.
	CO2	Analyze the use control structures in python programming.
	CO3	Understand the basic concepts and techniques of Machine Learning.
	CO4	Implement the basics in R programming in terms of constructs, control statements, string functions.
	CO5	Implement R Programming to conduct analytics on large real-life datasets.