

<b>Course Title</b>	<b>Artificial Intelligence</b>
<b>Course Code</b>	<b>DC-324</b>
<b>Credit Hours</b>	3
<b>Category</b>	Domain Core
<b>Prerequisite</b>	Discrete Structures
<b>Co-Requisite</b>	None
<b>Follow-up</b>	None
<b>Course Description</b>	Introduction (Introduction, basic component of AI, Identifying AI systems, branches of AI, etc.); Reasoning and Knowledge Representation (Introduction to Reasoning and Knowledge Representation, Propositional Logic, First order Logic); Problem Solving by Searching (Informed searching, Uninformed searching, Local searching.); Constraint Satisfaction Problems; Adversarial Search (Min-max algorithm, Alpha beta pruning, Game-playing); Learning (Unsupervised learning, Supervised learning, Reinforcement learning) ;Uncertainty handling (Uncertainty in AI, Fuzzy logic); Recent trends in AI and applications of AI algorithms (trends, Case study of AI systems, Analysis of AI systems)
<b>Text Book(s)</b>	Stuart Russell and Peter Norvig, Artificial Intelligence. A Modern Approach, 4th edition, Prentice Hall, Inc., 2020.
<b>Reference Material</b>	Luger, G.F. and Stubblefield, W.A., 2009. AI algorithms, data structures, and idioms in Prolog, Lisp, and Java. Pearson Addison-Wesley. George F. Luger, Artificial Intelligence - Structures and Strategies for Complex Problem Solving, 6 <sup>th</sup> Edition, Pearson, 2008, ISBN-13: 978-0321545893. Hart, P.E., Stork, D.G. and Duda, R.O., Pattern classification. John Willey & Sons, 2001. Ivan Bratko, Prolog: Programming for Artificial Intelligence, 4 <sup>th</sup> Edition, Pearson, 2011, ISBN-13: 978-0321417466. P. Winston, Artificial Intelligence, 3 <sup>rd</sup> Edition, Pearson, 1992, ISBN-13: 978-0201533774.