

<b>Title</b>	<b>Artificial Intelligence</b>												
<b>Code</b>	<b>CS-203</b>												
<b>Credit Hours</b>	<b>3+1</b>												
<b>Category</b>	Computing Core												
<b>Prerequisite</b>	Object Oriented Programming												
<b>Co-Requisite</b>	None												
<b>Follow-up</b>	None												
<b>Learning Outcomes</b>	<ul style="list-style-type: none"> <li>• Students will be able to understand the broad domain of AI</li> <li>• Students will be able to understand algorithms underlying classical as well as modern approaches to AI</li> <li>• Students will be able to experiment with modern approaches to AI</li> <li>• Students will be able to implement AI based solutions to real life problems</li> </ul>												
<b>Course Description</b>	<p>Introduction: What's AI, types of problems addressed, Symbolic AI: the physical symbol system hypothesis, Search: exhaustive &amp; heuristic search techniques. Knowledge Representation Schemas: Logic, frames, semantic nets etc</p> <p>Selected Topics:</p> <p>Game playing, Genetic algorithms, Introduction to Machine Learning for AI, Decision Trees, Bayesian classification, Artificial Neural Networks, Computer Vision, Natural Language Processing</p>												
<b>Text Book(s)</b>	<p>Artificial Intelligence- Structures &amp; Strategies for Complex Problem Solving by George F. Luger, 6th Edition, Pearson Education (2009)  ISBN-13: 978-0-321-54589-3</p>												
<b>Reference Material</b>	<ol style="list-style-type: none"> <li>1. Artificial Intelligence: A Modern Approach by Stuart Russell &amp; Peter Norvig, 3rd Edition Pearson Education (2009); ISBN-13: 978-0136042594</li> <li>2. Prolog: Programming for Artificial Intelligence by Ivan Bratko, 4th Edition, Pearson Education Canada (2011); ISBN-13: 978-0321417466</li> <li>3. Artificial Intelligence by P. Winston, 3rd Edition, Pearson Education (1992); ISBN-13: 978-0201533774</li> <li>4. Machine Learning by Tom M. Mitchell. 1st Edition, McGraw-Hill, 1997, ISBN: 978-0-07115-467-3</li> <li>5. Computer Vision: Algorithms and Applications by Richard Szeliski. Springer-Verlag London, 2011, ISBN:978-1-84882-934-3</li> </ol>												
<b>Assessment Criteria</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Assignments</td> <td style="width: 10%; text-align: right;">05</td> </tr> <tr> <td>Quizzes</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Class Participation</td> <td style="text-align: right;">05</td> </tr> <tr> <td>Project</td> <td style="text-align: right;">05</td> </tr> <tr> <td>Midterm</td> <td style="text-align: right;"><b>35</b></td> </tr> <tr> <td>Final</td> <td style="text-align: right;"><b>40</b></td> </tr> </table>	Assignments	05	Quizzes	10	Class Participation	05	Project	05	Midterm	<b>35</b>	Final	<b>40</b>
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