

**University of Dhaka**  
**Institute of Information Technology**  
**CSE 604: Artificial Intelligence**

**Course Outline**

**Instructor:** Dr. Ahmedul Kabir  
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**Course Content:**

The focus of this course is learning to understand and build computer systems that can behave intelligently and make logical decisions. To that end, several techniques of computer intelligence are explored. Some of these methods include: Problem solving with uninformed and heuristic search, game playing with adversarial search, logical inference, probabilistic reasoning to tackle uncertainty, and brief introductions to natural language processing, computer vision and machine learning.

**Required Text and Materials:**

- “Artificial Intelligence: A Modern Approach”, S.J. Russell and P. Norvig.

**Reference Text and Materials:**

- “Introduction to Artificial Intelligence and Expert Systems”, Dan W. Patterson
- “Intelligent Systems for Engineers and Scientists”, Adrian A. Hopgood

**Marks Distribution:**

Assessment Tools	Weightage (%)
Projects (3)	30%
Mid term Exam	20%
Final Exam	50%

**Grading**

According to DU grading policy

## Tentative Schedule

Week	Topic
1	Introduction, modern applications and state-of-the-art of AI
2	Intelligent agents & their Environments
3	Uninformed search
4	
5	Heuristic search
6	Adversarial search
7	Constraint Satisfaction Problems
8	*** Mid Term ***
9	Propositional logic and Logical inference
10	First Order Logic
11	Introduction to Probability and Uncertainty
12	Bayesian Networks
13	Temporal probability models
14	Fundamental concepts of Machine Learning, Applications of AI
15	
	*** Final Exam ***