Course Syllabus: CSE405

Machine Learning

Course Information

Course Code:	CSE405
Course Title:	Machine Learning
Credits:	3
Year:	Year 4
Semester:	Semester 1
Department:	Computer Science and Engineering
Institution:	University of Dhaka

Course Description

This course provides an introduction to machine learning concepts and techniques. Students will learn about supervised and unsupervised learning algorithms and their applications.

Learning Objectives

• Understand core concepts and principles related to the subject matter

• Develop practical skills in applying theoretical knowledge

• Analyze and solve complex problems in the field

• Communicate ideas and solutions effectively

• Work collaboratively in team-based projects

Course Topics

1. Supervised Learning
2. Unsupervised Learning
3. Neural Networks
4. Deep Learning
5. Reinforcement Learning

Assessment

Component	Weight
Midterm Examination	30%
Final Examination	40%
Assignments	15%
Lab Work	10%
Attendance	5%

Recommended Textbooks

• Pattern Recognition and Machine Learning by Christopher Bishop
• Deep Learning by Ian Goodfellow, Yoshua Bengio, and Aaron Courville