University of Denver
Department of Electrical and Computer Engineering

Course: Pattern Recognition, Winter 2009.

ENCE 4800, (4 QH)
ENCE 3830, (3 QH)

Schedule:
Lecture: MW 5:00pm-6:50pm   CMK-205
Final Exam: March 12, 2010, 4:00pm-5:50pm

Instructor: **Dr. Mohammad H. Mahoor**
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Office Hours: **MW 1:00pm-2:00p.m., and by appointment**

Prerequisites The course assumes previous programming experience and some familiarity with linear algebra and statistics (normally obtained through undergraduate coursework).

Required Textbook:
- Pattern Classification (2nd Edition) By **Richard O. Duda, Peter E. Hart, and David G. Stork**, Wiley; 2000; ISBN-10: 0471056693.

Recommend Textbook:
- Pattern Recognition
  by Sergios Theodoridis and Konstantinos Koutroumbas, Academic Press, 1998
- Statistical Pattern Recognition, 2nd Edition
      By Andrew R. Webb, Wiley, 2002, ISBN-10: 0470845147

Course Objective: This class provides an introduction to classical pattern recognition. Pattern recognition is the assignment of a physical object or event to one of several prescribed categories. Applications include automated object recognition in image and videos, face identification, and optical character recognition. Major topics include:

- Bayesian decision theory.
- Parametric estimation and supervised learning.
- Linear discriminant functions.
- Nonparametric methods.
- Feature extraction for representation and classification.
- Support Vector Machines.

Grading:

Grading will be based on two exams, homework assignments, and a project assignment (only graduate students who register for ENCE 4800 are required to do a final project).

Undergraduate Students	Graduate Students
30% Homework 35% Mid-term Exam 35% Final Exam	25% Homework 25% Mid-term Exam 25% Final Exam 25% Final Project