

# CS584 MACHINE LEARNING

## FALL 2016

SYLLABUS

### Course Description

Introduce fundamental problems in machine learning. Provide understanding of techniques, mathematical concepts, and algorithms used in machine learning. Provide understanding of the limitations of various machine learning algorithms and the way to evaluate performance of learning algorithms. Topics include: Introduction, Regression, Kernel methods, Generative learning, Discriminative learning, Neural networks, Support vector machines, Graphical models, Unsupervised learning, Dimensionality reduction.

### Prerequisites

CS430.

### Date and Location

Tuesday-Thursday: 3:15pm – 4:30pm

SB 104

### Instructor

Mustafa Bilgic

Office hours: Tuesdays 11am – 12pm

Office: Stuart Building 228C

Website: <http://www.cs.iit.edu/~mbilgic/>

Email address: [mbilgic@iit.edu](mailto:mbilgic@iit.edu)

Twitter: <https://twitter.com/bilgicm>

### Teaching Assistant

None at the moment

### Textbook

Highly recommended textbook for this course is Introduction to Machine Learning, 3<sup>rd</sup> Edition, by Ethem Alpaydin.

Textbook website: <http://www.cmpe.boun.edu.tr/~ethem/i2ml3e/>

## Online Tools

For questions and answers, please use Piazza: <https://piazza.com/iit/fall2016/cs584>

Course slides, assignments, and projects will be handled through Blackboard: <https://blackboard.iit.edu/>

## Grading

Assignments/Quizzes: 20%

Project: 15%

Midterm: 30%

Final: 35%

## Programming Language

Python 3.5.

## Late Submission Policy

Assignments/quizzes will be handled through Blackboard and submission will close automatically right on the clock.

Project submission will be through Blackboard as well, though submission will not be handled by Blackboard. Every late minute will cost you 1 point. No exceptions!

## Code of Academic Honesty

<https://web.iit.edu/student-affairs/handbook/fine-print/code-academic-honesty>

## Americans with Disabilities Act (ADA) Policy

Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) is located in 3424 S. State St., room 1C3-2 (on the first floor), telephone: 312.567.5744 or [disabilities@iit.edu](mailto:disabilities@iit.edu).