

# CS545 - Machine Learning for Signal Processing



TL;DR: [Class Material and Q&A](#) – [Instructor](#) – [TA](#)

## Course Information

Today we see an increasing need for machines that can understand complex real-world signals, such as speech, images, movies, music, biological and mechanical readings, etc. In this course we will cover the fundamentals of machine learning and signal processing as they pertain to this goal, as well as exciting recent developments.

We will learn how to decompose, analyze, classify, detect and consolidate signals, and examine various commonplace operations such as finding faces from camera feeds, organizing personal music collections, designing speech dialog systems and understanding movie content.

Grading will be based on 4-5 homework assignments and a final project.

You can find a tentative list of subject we will cover [here](#).

## Course staff

Paris Smaragdis <[paris@illinois.edu](mailto:paris@illinois.edu)> (Instructor)

Krishna Subramani <[ks51@illinois.edu](mailto:ks51@illinois.edu)> (TA)

## Course Coordinates

The course will be in-person at the Siebel Center for Computer Science Room 0216, Tuesdays and Thursdays 12:30-13:45.

## Course Teams site

We will be using MS Teams for this course (experimenting, bear with me ...). You can sign up for the Team [here](#) using the code rdhh903. If you have trouble signing up please contact the course staff.

Lecture schedule, handouts, homeworks, grades, chats, etc. will be provided there.