EECS 600: Deep Learning
Fall 2019, Tuesday 7:00-9:30
White Building 411, 3 credits

## Instructor:

Andrew Plassard Ph.D.
Office Hours: By Request
Email: **Andrew.Plassard@case.edu**

## Course Description:

Covers fundamentals of deep learning

## Grading Scheme:

| | | | |
|---|---|---|---|
| 30% | Homework | A | >= 90% |
| 20% | In-Class Presentation | B | >=80%, <90% |
| 40% | Final Project | C | >=70%, <80% |
| 10% | Attendance and Participation | D | >=60%, <70% |
| | | F | <60% |

## Homework Policy:

All assignments are to be completed individually. Assignments are to be completed in accordance with the CWRU student code of conduct. The lowest homework grade will be dropped at the end of the semester. Dropped homework assignments will not be considered during midterm grade calculation.

## Late Policy:

Assignments are due by midnight on their due date. Scores will be decreased by 10% for each day late after their due date. Assignments will not be accepted after the class period a week later begins (i.e. if an assignment is due on September 10th, once class on September 17th begins, no assignments will be accepted).

## Canvas Policy:

Each assignment will have a discussion page on Canvas. Please direct all questions to that page so that all students can benefit from that knowledge. If your question is personal in nature, contact the instructor directly.

## Textbook (Optional):

Deep Learning; Goodfellow, Bengio, and Courville. MIT Press

## Schedule:

| Date | Topic | Homework |
|---|---|---|
| 8/27 | Course Overview; Linear Algebra; Probability Theory; Numerical Computation | |
| 9/3 | Machine Learning Basics; Deep Feed Forward Neural Networks | HW1 Assigned |
| 9/10 | Regularization | |
| 9/17 | Optimization | |
| 9/24 | Autoencoders | HW1 Due; HW2 Assigned |
| 10/1 | Convolutional Networks 1 | |
| 10/8 | Convolutional Networks 2 | |
| 10/15 | Convolutional Networks 3 | HW2 Due; Project Proposal Assigned |
| 10/22 | Fall Break | |
| 10/29 | Project Proposals | Project Proposal Due |
| 11/5 | Sequence Modeling 1 | HW3 Assigned |
| 11/12 | Sequence Modeling 2 | |
| 11/19 | Generative Adversarial Learning 1 | |
| 11/26 | Generative Adversarial Learning 2 | HW3 Due |
| 12/3 | Approximate Inference | |

Schedule subject to change at instructor’s discretion