

# FALL 2019

### **ELECTIVES FOR CS MAJORS: ENTRY YEARS 2018-2019**

#### LOGICS AND LANGUAGES

- 15312 Foundations of Programming Languages
- 15316 Software Foundations of Security and Privacy
- 15317 Constructive Logic
- 15424 Logical Foundations of Cyber-Physical Systems

#### **SYSTEMS**

- 15410 Operating System Design and Implementation
- 15411 Compiler Design
- 15418 Parallel Computer Architecture and Programming
- 15440 Distributed Systems
- 15441 Computer Networks
- 15445 Database Systems

#### **ARTIFICIAL INTELLIGENCE**

- 10315 Introduction to Machine Learning
- 11411 Natural Language Processing
- 11485 Introduction to Deep Learning (NEW)
- 15281 Artificial Intelligence: Representation and Problem Solving (NEW COURSE NUMBER)
- 16384 Robot Kinematics and Dynamics
- 16385 Computer Vision

#### DOMAINS

- 05391 Designing Human-Centered Software
- 15322 Introduction to Computer Music
- 15330 Introduction to Computer Security
- 15455 Undergraduate Complexity Theory
- 15462 Computer Graphics
- 17313 Foundations of Software Engineering

#### PROBABILITY

- 21325 Probability
- 36218 Probability Theory for Computer Scientists
- 36225 Introduction to Probability Theory\*
- 36226 Introduction to Statistical Inference
  - \*students selecting 36225 must also take 36226 afterwards to satisfy this category

## **TECHNICAL COMMUNICATION**15300Research and Innovation in Computer Science

76270 Writing for the Professions