

Computational Statistics

Last Updated: Tue, 03/17/2026

Course prefix: ISYE

Course number: 6416

Section: B

CRN

94285

Instructor first name: Moïse

Instructor last name: Blanchard

Semester: Fall

Course description: This class describes the available knowledge regarding statistical computing. Topics include random deviates generation, importance sampling, Monte Carlo Markov chain (MCMC), EM algorithms, bootstrapping, model selection criteria, (e.g. C-p, AIC, etc.) splines, wavelets, and Fourier transform.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

Core IMPACTS statement(s) (if applicable):

This is a Core IMPACTS course that is part of the Humanities area. Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

- This course should direct students toward a broad Orienting Question:
 - How do I interpret the human experience through creative, linguistic, and philosophical works?
- Completion of this course should enable students to meet the following Learning Outcome:
 - Students will effectively analyze and interpret the meaning, cultural significance, and ethical implications of literary/philosophical texts or of works in the visual/performing arts.
- Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Ethical Reasoning
- Information Literacy
- Intercultural Competence