



**PURDUE
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Operations Research - Optimization IE 33500 Spring 2024

Course Information

Meeting Time: Tuesday, Thursday 4:30 pm – 5:45 pm

Location: Max W & Maileen Brown Hall 129

Modality: Face-to-face

Credit: 3

CRN: 20980

Instructor

Lucky Cho

Email: cho568@purdue.edu

Office: Grissom 312

Office Hours: Thursday 10 am – 12 pm or by appointment and walk-in

Phone: 914-240-0931

Zoom: <https://purdue-edu.zoom.us/j/7309082583>

- Email is the best way to contact me. Please put course title or IE 335 in the title of the email.

Teaching Assistants

Yao Ji

Email: ji151@purdue.edu

Office Hours: Tuesday 12:45 pm – 2:45 pm @ Grissom 157C

Xiaokai Chen

Email: chen4373@purdue.edu

Office Hours: Wednesday 2 pm – 4 pm @ Grissom 157D

Course Description

Introduction to deterministic optimization modeling and algorithms in operations research. Emphasis on formulation and solution of linear programs, networks flows, and integer programs.

Learning Outcomes

- Model real-world processes and systems as an optimization model.
- Develop modeling techniques for mathematical programming.
- Solve an optimization model using Gurobi and learn how to code in Gurobi-Python.

Optional textbooks

Introduction to Operations Research (ISBN: 978-1259872990)

Operations Research: Applications and Algorithms (ISBN: 978-0534380588)

Required software

Gurobi-Python

Grade Policies, Assessment, and Assignment

Letter	Points/Percentages
A	90~100
B	80~89
C	70~79
D	60~69
F	59 and below

80-83.9 is B-, 84-86.9 is B, and 87-89.9 is B+. Same for all other letter grades except F.

Assignment/Assessment	Percentage of Grade	Note
HW 1	5% Survey	
HW 2	5%	
HW 3	5%	
HW 4	5% Survey	
HW 5	5%	
HW 6	5%	
HW 7	5%	
HW 8	5% YouTube	
Exam 1	20%	Lowest Exam grade will be dropped
Exam 2	20%	
Exam 3	20%	
Cumulative Final	20%	

Homework

Homework is posted and submitted on Brightspace. Homework due date is 2 days before the exam and no late homework will be accepted unless students have University Excused Absences. Students are encouraged to work with other students.

Exam

Exams will be in person, closed notes, closed laptop. Make up exams are only available with University Excused Absences.

Attendance

There is no penalty for being absent from class. Attendance is not mandatory and there is no participation grade, but it is highly recommended that you attend class for successful learning. University Excused Absences (<https://www.purdue.edu/advocacy/students/absences.html>) can be used to postpone deadline for homework and make up an exam. Please contact the instructor if you are using one of the University Excused Absences.



<https://tenor.com/view/you-can-do-it-cheating-exam-notes-funny-gif-5196771>

Academic Integrity

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information is submitted the greater the opportunity for the university to investigate the concern. More details are available on our course Brightspace under University Policies and Statements.

Copyright

See the University Policies and Statements section of Brightspace for guidance on Use of Copyrighted Materials. Effective learning environments provide opportunities for students to reflect, explore new ideas, post opinions openly, and have the freedom to change those opinions over time. Students and instructors are the authors of the works they create in the learning environment. As authors, they own the copyright in their works subject only to the university's right to use those works for educational purposes. Students may not copy, reproduce, or post to any other outlet (e.g., YouTube, Facebook, or other open media sources or websites) any work in which they are not the sole or joint author or have not obtained the permission of the author(s).

Nondiscrimination Statement

Purdue University is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. A hyperlink to Purdue's full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies and Statements.

Mental Health/Wellness Statement

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try [WellTrack](#). Sign in and find information and tools at your fingertips, available to you at any time.

If you need support and information about options and resources, please contact or see the [Office of the Dean of Students](#). Call 765-494-1747. Hours of operation are M-F, 8 a.m.- 5 p.m.

If you find yourself struggling to find a healthy balance between academics, social life, stress, etc., sign up for free one-on-one virtual or in-person sessions with a [Purdue Wellness Coach at RecWell](#). Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is free and can be done on BoilerConnect.

If you're struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact [Counseling and Psychological Services \(CAPS\)](#) at 765-494-6995 during and after hours, on weekends and holidays, or by going to the CAPS office on the second floor of the Purdue University Student Health Center (PUSH) during business hours.

Basic Needs Security

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday.

Emergency Preparation

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.

A link to Purdue's Information on [Emergency Preparation and Planning](#) is located on our Brightspace under "University Policies and Statements." This website covers topics such as Severe Weather Guidance, Emergency Plans, and a place to sign up for the Emergency Warning Notification System. I encourage you to download and review the *Emergency Preparedness for Classrooms* document ([PDF](#)) or ([Word](#)).