

ISYE 4200 Engineering Optimization – Stochastic Decision Models Spring 2023

Instructor: Dr. Renee Butler, P.E.
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 Phone: (470) 578-5414
 Class: T R 12:30 – 1:45 in Q105
 Class Materials: D2L Brightspace <https://d2l.kennesaw.edu/>
 Office Hours: Tuesdays 10:00 – 11:30, virtual or F2F meetings by appointment
 Office: Q - 327

Textbook:

Introduction to Operations Research, 11th Edition
 Hillier, F. S., and Lieberman, G. J.
 Publisher: McGraw-Hill Publishing Company

Course Objective:

This course provides formulation and solution of stochastic models of operations research including game theory, decision analysis, Markov chains, queuing theory and applications, inventory theory, Markov decision process, and simulation to address different types of applications in the areas of engineering design, production planning and scheduling, inventory control, logistics, and project management.

Pre-requisite: (ISYE 3400 or MATH 3272) AND (ISYE 2600 or STAT 2332 or MATH 3332)
 AND MATH 2202

Grading:

Letter grades will be assigned based on a course average that is computed using the following weights.

Item	Percentage
Homework (lowest will be dropped)	20%
Exam#1	20%
Exam#2	20%
Project	20%
Final Exam	20%

Grand Total	Grade
89.5-100	A
79.5-89.4	B
69.5-79.4	C
59.5-69.4	D
59.4 and below	F

Homework will be selected problems from the textbook. They will be turned in via D2L and the lowest grade will be dropped. Late homework will be accepted in the assignment dropbox and a 10% penalty per day will be deducted.

Exams will be in class or during the scheduled final exam period. They will be open notes and open books. A laptop is recommended to access the D2L site and specialized software.

Make-up Exams: In general, there will be no make-up exam given. Please let me know in advance of any exams that will be missed for an institute-approved reason.

Re-grades: Requests for re-grades must be made in writing (be specific) between 24 hours and 1 week after an assignment or exam is returned.

Midterm Grade: A midterm grade will be assigned by the midterm grade due date identified on the Spring 2023 academic calendar. This midterm grade is for assessing mid-semester performance prior to the last day to withdraw without academic penalty. You may view your midterm grade in Owl Express. Note that only your final grade will be officially recorded on your academic transcript.

Professional Behavior: All students are expected to abide by the professional ethical behavior standards as contained under the Student Life Regulations of the Undergraduate Catalog of KSU. This includes all work being completed individually by the student registered for the course and all sources acknowledged within all written work and communications.

Academic Integrity Statement:

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section 5c of the Student Code of Conduct addresses the university's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to university materials, misrepresentation/falsification of university records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one-semester suspension requirement.

Some guidelines are listed below. Additional guidelines for individual assignments may be explained with the assignment. If you have any questions, please ask me!

- Students may not work together on the exams.
- Students may not get help from a service, such as Chegg.com.
- Any resources used to complete the project (including significant help from fellowstudents) must be properly cited.

The KSU Codes of Conduct are available at: <https://scai.kennesaw.edu/codes.php>.

Disability Statement

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the counselor working with disabilities at sds@kennesaw.edu or [470-578-](tel:470-578-)

[7361](#) as soon as possible to better ensure that such accommodations are implemented in a timely fashion.

Course Delivery

KSU may shift the method of course delivery at any time during the semester in compliance with the University System of Georgia's health and safety guidelines. In this case, alternate teaching modalities that may be adopted include hyflex, hybrid, synchronous online, or asynchronous online instruction.

COVID-19 illness

If you are feeling ill, please stay home and contact your health professional. In addition, please email your instructor to say you are missing class due to illness. Signs of COVID-19 illness include, but are not limited to, the following:

- Cough
- Fever of 100.4 or higher
- Runny nose or new sinus congestion
- Shortness of breath or difficulty breathing
- Chills
- Sore Throat
- New loss of taste and/or smell

COVID-19 vaccines are a critical tool in "Protecting the Nest." If you have not already, you are strongly encouraged to get vaccinated immediately to advance the health and safety of our campus community. As an enrolled KSU student, you are eligible to receive the vaccine on campus. Please call (470) 578-6644 to schedule your vaccination appointment.

For more information regarding COVID-19 (including testing, vaccines, extended illness procedures and accommodations), see KSU's official [Covid-19 website](#).

Attending class virtually when ill

- If you are experiencing symptoms of COVID-19, and provide documentation of a test being performed, you may attend the class virtually. I will send you a link for MS Teams.
- If you are experiencing other illnesses, and can provide doctor's documentation, you may attend the class virtually.

Attending virtually is not an option for travel, work, or other reasons.

Masks

Based on guidance from the University System of Georgia (USG), masks are encouraged based on individual preference and assessment of personal risk. Disposable face coverings can be picked up at the Office of Emergency Management at Chastain Pointe on the Kennesaw campus and Norton Hall Police Precinct on the Marietta campus. Please email oem@kennesaw.edu if you have questions.

Web Cameras

Instructors may require web cameras in their respective courses.

Other Policies and Resources

"Federal, BOR, & KSU Course Syllabus Policies" go to <https://cia.kennesaw.edu/instructional-resources/syllabus-policy.php>

"Student Resources" go to <https://cia.kennesaw.edu/instructional-resources/syllabus-resources.php>