

# 2022F EM 365-A

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## EM 365 Statistics for Engineering Managers ([EM 364 Lab](#)

(<https://sit.instructure.com/courses/59465/pages/em-364-syllabus>)

School of Systems and Enterprises

Fall 2022

Instructor:	Paul Grogan
Canvas Course Address:	<a href="https://sit.instructure.com/courses/59465">https://sit.instructure.com/courses/59465</a> ( <a href="https://sit.instructure.com/courses/59465">https://sit.instructure.com/courses/59465</a> )
Course Schedule:	Lecture: Mondays, 12:00-1:40pm ET (Babbio 221) Lecture: Wednesdays 10:00-10:50am ET (Babbio 220) Lab: Wednesdays 11:00-11:50am ET (Babbio 310)
Contact Info:	<a href="mailto:pgrogan@stevens.edu">pgrogan@stevens.edu</a> , ( <a href="mailto:pgrogan@stevens.edu">mailto:pgrogan@stevens.edu</a> ) 201-216-5378 Mondays 5:00-6:15pm ET (Babbio 517 or <a href="#">Zoom</a>  ) ( <a href="https://stevens.zoom.us/j/92541462812">https://stevens.zoom.us/j/92541462812</a> )
Office Hours:	also available Tuesdays 5:00-6:15pm ET for SYS 611 (Babbio 517 or <a href="#">Zoom</a>  ) ( <a href="https://stevens.zoom.us/j/93079915503">https://stevens.zoom.us/j/93079915503</a> )
TA:	Bijun Wang ( <a href="mailto:bwang27@stevens.edu">bwang27@stevens.edu</a> ( <a href="mailto:bwang27@stevens.edu">mailto:bwang27@stevens.edu</a> ))
Grader:	Dehan Kong ( <a href="mailto:dkong4@stevens.edu">dkong4@stevens.edu</a> ( <a href="mailto:dkong4@stevens.edu">mailto:dkong4@stevens.edu</a> ))
Prerequisite(s)/Corequisite(s):	None

## COURSE DESCRIPTION

Provides a working knowledge of basic statistics as it is most often applied in engineering. Topics

... possess a working knowledge of basic statistics as it is most often applied in engineering. Topics include: fundamentals of probability theory, review of distributions of special interest in statistics, analysis and enumeration of data, linear regression and correlation, statistical design of engineering experiments, completely randomized design, randomized block design, factorial experiments, engineering applications and use of the computer as a tool for statistical analysis.

## STUDENT LEARNING OUTCOMES


In this course the students will be exposed to the design of experiments and will gain the ability to analyze experimental data. Students will be able to validate that experimental objectives have been achieved and analyze trends, error, precision and general statistical parameters.

Students will be able to utilize a working knowledge of probability and statistics, along with practical applications to engineering problems. There will also be exposure to the design and analysis of statistical experiments.

**After successful completion of this course, students will be able to...**

- 1B You are able to analyze data using graphical methods, statistical procedures (t procedures), and statistical models (ANOVA and multiple linear regression).
- 6 You have a working knowledge of probability, design and statistical analysis, along with an understanding of their practical applications to engineering problems and statistical experiments.
- 5B By working in two or three-person groups on projects to come to a group conclusion, you have gained knowledge of teams and the positive contributions of diverse viewpoints in problem solving.
- 3 While writing your project, you develop the ability to communicate effectively and persuasively and cogently develop ideas for presentation.

## COURSE FORMAT AND STRUCTURE

This course is offered as a distance learning mode of instruction. Synchronous lectures will be live-streamed and also recorded for remote access. Assignments and exams will be administered online using Canvas. All course requirements can be completed online. To access the course, please visit [stevens.edu/canvas](http://stevens.edu/canvas)  (<http://stevens.edu/canvas>). For more information about course access or support, contact the TRAC by calling 201-380-6599 or 201-216-5500.

## Course Logistics

- Lectures are held on Mondays from 12:00-1:40pm ET and Wednesdays from 10:00-10:50am ET.

- All lectures are live, attendance is expected, and recordings will be available for personal learning.
- Exams will be administered in person. Exams must be completed within the specified time limit. Exams 1 and 3 are not cumulative. The midterm and final exam are cumulative.
  - Homework assignments will be assigned but will not be graded.
  - Labs are held on Wednesdays from 11:00-11:50am ET. Labs provide a "flipped classroom" for hands-on experience with datasets and statistical software and attendance is required.
  - Lab reports are due Tuesdays by 11:59pm ET on Canvas.

## Instructor's Online Hours

I am available via email and will respond as soon as I am available (generally within 1 business day). I monitor Canvas discussions and respond as soon as possible (generally sooner than 1 business day).

## Hybrid Office Hours

Hybrid office hours provide a physical (Babbio Center 517) and virtual (Zoom) opportunity to discuss questions related to the weekly readings and/or assignments.

## Online Etiquette Guidelines

Help foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but do not attack individuals. Our differences, some of which are outlined in the University's inclusion statement below, add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions. Working as a community of learners, we can build a polite and respectful course ambience.

# TENTATIVE COURSE SCHEDULE

The following schedule identifies tentative dates and topics for class sessions. Any changes will be communicated via an announcement and an updated schedule on Canvas.

#	Date	Topic(s)	Readings	Assignmei
1	9/5	No Class -- Happy Labor Day!		

	9/7	<b><u>Descriptive Statistics</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275167">https://sit.instructure.com/courses/59465/modules/275167</a> )	Ch. 1-3	<b><u>HW-1</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )
2	9/12	<b><u>Probability Theory</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275168">https://sit.instructure.com/courses/59465/modules/275168</a> )	Ch. 4	<b><u>HW-2</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )
	9/14	...continued		
3	9/19	<b><u>Discrete Random Variables</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275169">https://sit.instructure.com/courses/59465/modules/275169</a> )	Ch. 5	<b><u>HW-3</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )
	9/21	...continued		
4	9/26 Recording	<b><u>Continuous Random Variables</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275169">https://sit.instructure.com/courses/59465/modules/275169</a> )	Ch. 6	
	9/28	...continued		( <a href="https://sit.ir">https://sit.ir</a> )
5	10/3	<b><u>1st Quarter Exam (Ch. 1-6)</u></b> ( <a href="https://sit.instructure.com/courses/59465/assignments/340411">https://sit.instructure.com/courses/59465/assignments/340411</a> )		( <a href="https://sit.ir">https://sit.ir</a> )
	10/5	<b><u>Sampling and Estimation</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275171">https://sit.instructure.com/courses/59465/modules/275171</a> )	Ch. 7	<b><u>HW-4</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )
6	10/11 Tuesday	<b><u>Inference for One Population</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275172">https://sit.instructure.com/courses/59465/modules/275172</a> )	Ch. 8-9	<b><u>HW-5</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )
	10/12	...continued		
7	10/17	<b><u>Inference for Two Populations</u></b> ( <a href="https://sit.instructure.com/courses/59465/modules/275173">https://sit.instructure.com/courses/59465/modules/275173</a> )	Ch. 10	<b><u>HW-6</u></b> ( <a href="https://sit.ir">https://sit.ir</a> )

	10/19	...continued		
8	10/24	<b>Midterm Exam (Ch. 1-10)</b> ( <a href="https://sit.instructure.com/courses/59465/assignments/340440">https://sit.instructure.com/courses/59465/assignments/340440</a> )		
	10/26	<b>Inference for Three or More Populations</b> ( <a href="https://sit.instructure.com/courses/59465/modules/275175">https://sit.instructure.com/courses/59465/modules/275175</a> )	Ch. 11	( <a href="https://sit.ir">https://sit.ir</a> ) <b>HW-7</b> ( <a href="https://sit.ir">https://sit.ir</a> )
9	10/31	...continued		
	11/2	...continued		
10	11/7	<b>Simple Regression</b> ( <a href="https://sit.instructure.com/courses/59465/modules/275176">https://sit.instructure.com/courses/59465/modules/275176</a> )	Ch. 12	<b>HW-8</b> ( <a href="https://sit.ir">https://sit.ir</a> )
	11/9	...continued		
11	11/14	<b>Multiple Regression</b> ( <a href="https://sit.instructure.com/courses/59465/modules/275177">https://sit.instructure.com/courses/59465/modules/275177</a> )	Ch. 13-14	<b>HW-9</b> ( <a href="https://sit.ir">https://sit.ir</a> )
	11/16	...continued		<b>HW-10</b> ( <a href="https://sit.ir">https://sit.ir</a> )
12	11/21	<b>3rd Quarter Exam (Ch. 11-14)</b> ( <a href="https://sit.instructure.com/courses/59465/assignments/340412">https://sit.instructure.com/courses/59465/assignments/340412</a> )		
	11/23	No Class -- Happy Thanksgiving!		( <a href="https://sit.ir">https://sit.ir</a> )
13	11/28	Project Discussion		<b>Project Pr</b> ( <a href="https://sit.ir">https://sit.ir</a> ) : due 11/29 <b>Project</b> ( <a href="https://sit.ir">https://sit.ir</a> )



				: due 12/13 <a href="#">Peer Eval</a> ( <a href="https://sit.ir">https://sit.ir</a> ) : due 12/14
	11/30	<a href="#">General Regression</a> ( <a href="https://sit.instructure.com/courses/59465/modules/275177">https://sit.instructure.com/courses/59465/modules/275177</a> )	n/a	
14	12/5	<a href="#">Chi-squared and Non-parametric Tests</a> ( <a href="https://sit.instructure.com/courses/59465/modules/275180">https://sit.instructure.com/courses/59465/modules/275180</a> )	Ch. 16-17	<a href="#">HW-11</a> ( <a href="https://sit.ir">https://sit.ir</a> )
	12/7	<a href="#">Statistical Process Control</a> ( <a href="https://sit.instructure.com/courses/59465/modules/275179">https://sit.instructure.com/courses/59465/modules/275179</a> )	Ch. 18	<a href="#">HW-12</a> ( <a href="https://sit.ir">https://sit.ir</a> )
15	12/12	Review/Makeup		
	12/14	Review/Makeup		
	12/21 1-4pm EAS 330	<a href="#">Final Exam</a> ( <a href="https://sit.instructure.com/courses/59465/assignments/340413">https://sit.instructure.com/courses/59465/assignments/340413</a> ) (Ch. 1-14; 16-18)		

## COURSE MATERIALS

### Textbook:

- Black, K. (2014). *Business Statistics for Contemporary Decision Making*, 8th Edition, Wiley & Sons.

### Software:

- Spreadsheet software such as Microsoft Excel (2003 or later) or Google Sheets
- Python 3.8 (Google Colab recommended at <https://colab.research.google.com>  (<https://colab.research.google.com>); Anaconda suite recommended, available at <https://www.anaconda.com/products/individual>  (<https://www.anaconda.com/products/individual>)

## COURSE REQUIREMENTS

**Attendance:** Required for lectures and lab sessions. Please contact the instructor in writing to be excused from lecture.

**Homework:** Homework assignments will be assigned each week but not graded.

**Project:** The project will conduct a statistical experiment using the Design of Experiments (DoE) methods learned in class. Working in groups of two or three, the final submission is a written report.

**Exams:** Four exams cover core course content. No communication with others (except the instructor) is permitted during the exam period and students may not share any information about the exams with others during the exam period. Exam 1 and Exam 3 are not cumulative. The Midterm and Final exam are cumulative.

**Labs:** The lab component of this course is worth 1 credit. The lab grade will be the same as the course grade. Lab reports are due on Tuesdays at 11:59pm ET on Canvas.

## TECHNOLOGY REQUIREMENTS

### Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Canvas



### Technology skills necessary for this specific course

- Live web conferencing using Zoom, if required

### Required Equipment

- Computer: Mac (OS X), Linux (e.g. Ubuntu), or Windows (7+) with high-speed internet connection

### Required Software

- Current or first previous major release of Chrome, Firefox, Edge, or Safari browser
- Spreadsheet software such as Microsoft Excel (2003 or later) or Google Sheets
- Python 3.8 (Google Colab recommended at <https://colab.research.google.com>   
(<https://colab.research.google.com>); Anaconda suite optional, available at  
<https://www.anaconda.com/products/individual>   
(<https://www.anaconda.com/products/individual>.)

## GRADING PROCEDURES

This course will be graded on a points system with the following components:

Item	Quantity	Points	Total Points	% Final Grade
Lab Reports*	12	10	120	24.0
Exams	2	50	100	20.0
Midterm Exam	1	100	100	20.0
Project	1	80	80	16.0
Final Exam	1	100	100	20.0
* Drop 1 lowest score from first 12 of 13 reports (Cannot drop LR-13)				

Grades will be assigned with the standard Stevens criteria:

Final Points	Percent	Grade
470 - 500	94.0 - 100.0	A
450 - 469	90.0 - 93.9	A-
435 - 449	87.0 - 89.9	B+
420 - 434	84.0 - 86.9	B
400 - 419	80.0 - 83.9	B-
385 - 399	77.0 - 79.9	C+
370 - 384	74.0 - 76.9	C
350 - 369	70.0 - 73.9	C-
335 - 349	67.0 - 69.9	D+
320 - 334	64.0 - 66.9	D
305 - 319	61.0 - 63.9	D-
< 305	< 61.0	F

## Late Policy



Late lab reports are penalized at a rate of 0.42% per hour (10% per day) and will not be accepted after solutions are posted (approximately 1 week after deadline).

Late exams and projects will not be accepted.

Extensions must be requested in writing at least 48 hours before the deadline. Extensions may still be granted in cases of personal emergencies, family emergencies, or official Stevens business provided the instructor has been notified in advance.

## Academic Integrity

### Undergraduate Honor System

Enrollment into the undergraduate class of Stevens Institute of Technology signifies a student's commitment to the Honor System. Accordingly, the provisions of the Stevens Honor System apply to all undergraduate students in coursework and Honor Board proceedings. It is the responsibility of each student to become acquainted with and to uphold the ideals set forth in the Honor System Constitution. More information about the Honor System including the constitution, bylaws, investigative procedures, and the penalty matrix can be found online at

<http://web.stevens.edu/honor/> ➞ [\(http://web.stevens.edu/honor/\)](http://web.stevens.edu/honor/)

The following pledge shall be written in full and signed by every student on all submitted work (including, but not limited to, homework, projects, lab reports, code, quizzes and exams) that is assigned by the course instructor. No work shall be graded unless the pledge is written in full and signed.

***"I pledge my honor that I have abided by the Stevens Honor System."***

#### Reporting Honor System Violations

Students who believe a violation of the Honor System has been committed should report it within ten business days of the suspected violation. Students have the option to remain anonymous and can report violations online at [www.stevens.edu/honor](http://www.stevens.edu/honor) ➞ [\(http://www.stevens.edu/honor/\)](http://www.stevens.edu/honor/).

## EXAM CONDITIONS

The following procedures apply to exams for this course. As the instructor, I reserve the right to modify any conditions set forth below by printing revised Exam Conditions on the quiz or exam.

1. Students may use the following materials during exams. Any materials that are not mentioned in

the list below are not permitted.

Material	Permitted?	
	Yes	No
Handwritten/Typed Notes	X	
Textbooks	X	
Readings	X	


2. Students may use the following devices and software during exams. Any devices or software that are not mentioned in the list below are not permitted.

Device/Software	Permitted?	
	Yes	No
Calculator	X	
Computer		X
Statistical Software		X

3. Students are not allowed to work with or talk to other students during exams.

## LEARNING ACCOMMODATIONS

Stevens Institute of Technology is dedicated to providing appropriate accommodations to students with documented disabilities. The Office of Disability Services (ODS) works with undergraduate and graduate students with learning disabilities, attention deficit-hyperactivity disorders, physical disabilities, sensory impairments, psychiatric disorders, and other such disabilities in order to help students achieve their academic and personal potential. They facilitate equal access to the educational programs and opportunities offered at Stevens and coordinate reasonable accommodations for eligible students. These services are designed to encourage independence and self-advocacy with support from the ODS staff. The ODS staff will facilitate the provision of accommodations on a case-by-case basis.

For more information about Disability Services and the process to receive accommodations, visit <https://www.stevens.edu/office-disability-services>  (<https://www.stevens.edu/office-disability-services>). If you have any questions please contact: Phillip Gehman, the Director of Disability Services Coordinator at Stevens Institute of Technology at [pgehman@stevens.edu](mailto:pgehman@stevens.edu) (<mailto:pgehman@stevens.edu>) or by phone 201-216-3748.

## **Disability Services Confidentiality Policy**

Student Disability Files are kept separate from academic files and are stored in a secure location within the Office of Disability Services. The Family Educational Rights Privacy Act (FERPA, 20 U.S.C. 1232g; 34CFR, Part 99) regulates disclosure of disability documentation and records maintained by Stevens Disability Services. According to this act, prior written consent by the student is required before our Disability Services office may release disability documentation or records to anyone. An exception is made in unusual circumstances, such as the case of health and safety emergencies.

## **INCLUSIVITY**

### **Name and Pronoun Usage**

As this course includes group work and class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect. This includes the ability for all students to have their chosen gender pronoun(s) and chosen name affirmed. If the class roster does not align with your name and/or pronouns, please inform the instructor of the necessary changes.

### **Inclusion Statement**

Stevens Institute of Technology believes that diversity and inclusiveness are essential to excellence in academic discourse and innovation. In this class, the perspective of people of all races, ethnicities, gender expressions and gender identities, religions, sexual orientations, disabilities, socioeconomic backgrounds, and nationalities will be respected and viewed as a resource and benefit throughout the semester. Suggestions to further diversify class materials and assignments are encouraged. If any course meetings conflict with your religious events, please do not hesitate to reach out to your instructor to make alternative arrangements.

You are expected to treat your instructor and all other participants in the course with courtesy and respect. Disrespectful conduct and harassing statements will not be tolerated and may result in disciplinary actions.

## **MENTAL HEALTH RESOURCES**

Part of being successful in the classroom involves a focus on your whole self, including your mental health. While you are at Stevens, there are many resources to promote and support mental health. The Office of Counseling and Psychological Services (CAPS) offers free and confidential services to all enrolled students who are struggling to cope with personal issues (e.g., difficulty adjusting to college or trouble managing stress) or psychological difficulties (e.g., anxiety and depression).






college or trouble managing stress) or psychological ailments (e.g., anxiety and depression).

Appointments are can be made by phone (201-216-5177).

## EMERGENCY INFORMATION

In the event of an urgent or emergent concern about the safety of yourself or someone else in the Stevens community, please immediately call the Stevens Campus Police at 201-216-5105 or on their emergency line at 201-216-3911. These phone lines are staffed 24/7, year round. For students who do not reside near the campus and require emergency support, please contact your local emergency response providers at 911 or via your local police precinct. Other 24/7 national resources for students dealing with mental health crises include the National Suicide Prevention Lifeline (1-800-273-8255) and the Crisis Text Line (text "Home" to 741-741). If you are concerned about the wellbeing of another Stevens student, and the matter is *not* urgent or time sensitive, please email the CARE Team at [care@stevens.edu](mailto:care@stevens.edu) (<mailto:care@stevens.edu>). A member of the CARE Team will respond to your concern as soon as possible.

## Course Summary:

Date	Details	Due
Mon Sep 5, 2022	 <a href="#">EM 365 Lecture</a> <a href="https://sit.instructure.com/calendar?event_id=228066&amp;include_contexts=course_59465">https://sit.instructure.com/calendar?event_id=228066&amp;include_contexts=course_59465</a>	12pm to 1:45pm
Wed Sep 7, 2022	 <a href="#">EM 365/364 Lab</a> <a href="https://sit.instructure.com/calendar?event_id=228097&amp;include_contexts=course_59465">https://sit.instructure.com/calendar?event_id=228097&amp;include_contexts=course_59465</a>	11am to 12pm
	 <a href="#">EM 365 Lecture</a> <a href="https://sit.instructure.com/calendar?event_id=228067&amp;include_contexts=course_59465">https://sit.instructure.com/calendar?event_id=228067&amp;include_contexts=course_59465</a>	12pm to 1:45pm
	 <a href="#">EM 365 Lecture</a> <a href="https://sit.instructure.com/calendar?event_id=228068&amp;include_contexts=course_59465">https://sit.instructure.com/calendar?event_id=228068&amp;include_contexts=course_59465</a>	12pm to 1:45pm
Mon Sep 12, 2022	 <a href="#">EM 365 Office Hours</a> (Optional) <a href="https://sit.instructure.com/calendar?">https://sit.instructure.com/calendar?</a>	5pm to 6:15pm

[event\\_id=236423&include\\_contexts=course\\_59465\)](#)

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Tue Sep 13, 2022



**LR-01**

[https://sit.instructure.com/courses/59465/assignments/340426\)](https://sit.instructure.com/courses/59465/assignments/340426)

due by 11:59pm

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**EM 365/364 Lab**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228098&include_contexts=course_59465)

[event\\_id=228098&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228098&include_contexts=course_59465)

11am to 12pm

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**EM 365 Lecture**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228069&include_contexts=course_59465)

[event\\_id=228069&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228069&include_contexts=course_59465)

12pm to 1:45pm

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**EM 365 Lecture**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228070&include_contexts=course_59465)

[event\\_id=228070&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228070&include_contexts=course_59465)

12pm to 1:45pm

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Mon Sep 19, 2022



**EM 365 Office Hours**

**(Optional)**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=236424&include_contexts=course_59465)

[event\\_id=236424&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=236424&include_contexts=course_59465)

5pm to 6:15pm

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Tue Sep 20, 2022



**LR-02**

[https://sit.instructure.com/courses/59465/assignments/340427\)](https://sit.instructure.com/courses/59465/assignments/340427)

due by 11:59pm

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**EM 365/364 Lab**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228099&include_contexts=course_59465)

[event\\_id=228099&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228099&include_contexts=course_59465)

11am to 12pm

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Wed Sep 21, 2022



**EM 365 Lecture**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228071&include_contexts=course_59465)

[event\\_id=228071&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228071&include_contexts=course_59465)

12pm to 1:45pm

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Tue Sep 27, 2022



**LR-03**

[https://sit.instructure.com/courses/59465/assignments/340428\)](https://sit.instructure.com/courses/59465/assignments/340428)

due by 11:59pm

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**EM 365/364 Lab**

[https://sit.instructure.com/calendar?](https://sit.instructure.com/calendar?event_id=228100&include_contexts=course_59465)

[event\\_id=228100&include\\_contexts=course\\_59465\)](https://sit.instructure.com/calendar?event_id=228100&include_contexts=course_59465)

11am to 12pm

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Wed Sep 28, 2022

**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228073&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228073&include_contexts=course_59465))

12pm to 1:45pm

**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228074&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228074&include_contexts=course_59465))

12pm to 1:45pm

**1st Quarter Exam**

(<https://sit.instructure.com/courses/59465/assignments/340411>)

due by 1:40pm

Mon Oct 3, 2022

**EM 365 Office Hours**  
**(Optional)**

([https://sit.instructure.com/calendar?event\\_id=236426&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236426&include_contexts=course_59465))

5pm to 6:15pm

Tue Oct 4, 2022

**LR-04**

(<https://sit.instructure.com/courses/59465/assignments/340429>)

due by 11:59pm

Wed Oct 5, 2022

**EM 365/364 Lab**

([https://sit.instructure.com/calendar?event\\_id=228101&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228101&include_contexts=course_59465))

11am to 12pm

**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228075&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228075&include_contexts=course_59465))

12pm to 1:45pm

Mon Oct 10, 2022

**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228076&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228076&include_contexts=course_59465))

12pm to 1:45pm

**EM 365 Office Hours**  
**(Optional)**

([https://sit.instructure.com/calendar?event\\_id=236427&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236427&include_contexts=course_59465))

5pm to 6:15pm

Tue Oct 11, 2022

**LR-05**

(<https://sit.instructure.com/courses/59465/assignments/340430>)

due by 11:59pm

**EM 365/364 Lab**

([https://sit.instructure.com/calendar?event\\_id=228102&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228102&include_contexts=course_59465))

11am to 12pm

Wed Oct 12, 2022



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228077&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228077&include_contexts=course_59465))

12pm to 1:45pm



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228078&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228078&include_contexts=course_59465))

12pm to 1:45pm

Mon Oct 17, 2022



**EM 365 Office Hours**

(Optional)

([https://sit.instructure.com/calendar?event\\_id=236428&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236428&include_contexts=course_59465))

5pm to 6:15pm

Tue Oct 18, 2022



**LR-06**

(<https://sit.instructure.com/courses/59465/assignments/340431>)

due by 11:59pm



**EM 365/364 Lab**

([https://sit.instructure.com/calendar?event\\_id=228103&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228103&include_contexts=course_59465))

11am to 12pm

Wed Oct 19, 2022



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228079&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228079&include_contexts=course_59465))

12pm to 1:45pm



**LR-06**

(<https://sit.instructure.com/courses/59465/assignments/340431>)

(1 student)

due by 11:59pm

Fri Oct 21, 2022



**EM 365 Extra Office Hours**

([https://sit.instructure.com/calendar?event\\_id=241435&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=241435&include_contexts=course_59465))

3pm to 4pm

Sun Oct 23, 2022



**EM 365 Midterm Review**

**Session**

([https://sit.instructure.com/calendar?event\\_id=241436&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=241436&include_contexts=course_59465))

5pm to 6pm

**EM 365 Lecture**

([https://sit.instructure.com/calendar?  
event\\_id=228080&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228080&include_contexts=course_59465))

12pm to 1:45pm

Mon Oct 24, 2022

**Midterm Exam**

(<https://sit.instructure.com/courses/59465/assignments/340440>)

due by 1:40pm

**EM 365 Office Hours  
(Optional)**

([https://sit.instructure.com/calendar?  
event\\_id=236429&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236429&include_contexts=course_59465))

5pm to 6:15pm

Tue Oct 25, 2022

**LR-07**

(<https://sit.instructure.com/courses/59465/assignments/340432>)

due by 11:59pm

**EM 365/364 Lab**

([https://sit.instructure.com/calendar?  
event\\_id=228104&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228104&include_contexts=course_59465))

11am to 12pm

Wed Oct 26, 2022

**EM 365 Lecture**

([https://sit.instructure.com/calendar?  
event\\_id=228081&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228081&include_contexts=course_59465))

12pm to 1:45pm

**EM 365 Lecture**

([https://sit.instructure.com/calendar?  
event\\_id=228082&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228082&include_contexts=course_59465))

12pm to 1:45pm

Mon Oct 31, 2022

**EM 365 Office Hours  
(Optional)**

([https://sit.instructure.com/calendar?  
event\\_id=236430&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236430&include_contexts=course_59465))

5pm to 6:15pm

Tue Nov 1, 2022

**LR-08**

(<https://sit.instructure.com/courses/59465/assignments/340433>)

due by 11:59pm

**EM 365/364 Lab**

([https://sit.instructure.com/calendar?  
event\\_id=228105&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228105&include_contexts=course_59465))

11am to 12pm

Wed Nov 2, 2022

**EM 365 Lecture**



([https://sit.instructure.com/calendar?event\\_id=228083&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228083&include_contexts=course_59465))

12pm to 1:45pm

Fri Nov 4, 2022



**Quarterly Exam 3 Poll**

(<https://sit.instructure.com/courses/59465/assignments/365493>)

due by 11:59pm

Sun Nov 6, 2022



**HW-07**

(<https://sit.instructure.com/courses/59465/assignments/340420>)

due by 11:59pm



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228084&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228084&include_contexts=course_59465))

12pm to 1:45pm

Mon Nov 7, 2022



**Midterm Corrections**

(<https://sit.instructure.com/courses/59465/assignments/340439>)

due by 12pm



**EM 365 Office Hours  
(Optional)**

([https://sit.instructure.com/calendar?event\\_id=236431&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236431&include_contexts=course_59465))

5pm to 6:15pm

Tue Nov 8, 2022



**LR-09**

(<https://sit.instructure.com/courses/59465/assignments/340434>)

due by 11:59pm



**EM 365/364 Lab**

([https://sit.instructure.com/calendar?event\\_id=228106&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228106&include_contexts=course_59465))

11am to 12pm

Wed Nov 9, 2022



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228085&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228085&include_contexts=course_59465))

12pm to 1:45pm

Sun Nov 13, 2022



**HW-08**

(<https://sit.instructure.com/courses/59465/assignments/340421>)

due by 11:59pm



**EM 365 Lecture**

([https://sit.instructure.com/calendar?event\\_id=228086&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228086&include_contexts=course_59465))

12pm to 1:45pm

Mon Nov 14, 2022

**EM 365 Office Hours****(Optional)**[https://sit.instructure.com/calendar?  
event\\_id=236432&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236432&include_contexts=course_59465)

5pm to 6:15pm

Tue Nov 15, 2022

**LR-10**<https://sit.instructure.com/courses/59465/assignments/340435>

due by 11:59pm

Wed Nov 16, 2022

**EM 365/364 Lab**[https://sit.instructure.com/calendar?  
event\\_id=228107&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228107&include_contexts=course_59465)

11am to 12pm

**EM 365 Lecture**[https://sit.instructure.com/calendar?  
event\\_id=228087&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228087&include_contexts=course_59465)

12pm to 1:45pm

Sun Nov 20, 2022

**HW-09**<https://sit.instructure.com/courses/59465/assignments/340422>

due by 11:59pm

**EM 365 Lecture**[https://sit.instructure.com/calendar?  
event\\_id=228088&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228088&include_contexts=course_59465)

12pm to 1:45pm

Mon Nov 21, 2022

**3rd Quarter Exam**<https://sit.instructure.com/courses/59465/assignments/340412>

due by 1:40pm

**EM 365 Office Hours****(Optional)**[https://sit.instructure.com/calendar?  
event\\_id=236433&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236433&include_contexts=course_59465)

5pm to 6:15pm

Tue Nov 22, 2022

**LR-11**<https://sit.instructure.com/courses/59465/assignments/340436>

due by 11:59pm

**EM 365 Lecture**[https://sit.instructure.com/calendar?  
event\\_id=228090&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228090&include_contexts=course_59465)

12pm to 1:45pm

Mon Nov 28, 2022

**EM 365 Office Hours****(Optional)**

5pm to 6:15pm

([https://sit.instructure.com/calendar?  
event\\_id=236434&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236434&include_contexts=course_59465))

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Tue Nov 29, 2022



[Design of Experiments  
Project Proposal](https://sit.instructure.com/courses/59465/assignments/340410)

due by 11:59pm

(<https://sit.instructure.com/courses/59465/assignments/340410>)

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Wed Nov 30, 2022



[EM 365/364 Lab](https://sit.instructure.com/calendar?event_id=228109&include_contexts=course_59465)

11am to 12pm

([https://sit.instructure.com/calendar?  
event\\_id=228109&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228109&include_contexts=course_59465))

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[EM 365 Lecture](https://sit.instructure.com/calendar?event_id=228091&include_contexts=course_59465)

12pm to 1:45pm

([https://sit.instructure.com/calendar?  
event\\_id=228091&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228091&include_contexts=course_59465))

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Sun Dec 4, 2022



[HW-10](https://sit.instructure.com/courses/59465/assignments/340423)

due by 11:59pm

(<https://sit.instructure.com/courses/59465/assignments/340423>)

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[EM 365 Lecture](https://sit.instructure.com/calendar?event_id=228092&include_contexts=course_59465)

12pm to 1:45pm

([https://sit.instructure.com/calendar?  
event\\_id=228092&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228092&include_contexts=course_59465))

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Mon Dec 5, 2022



[EM 365 Office Hours  
\(Optional\)](https://sit.instructure.com/calendar?event_id=236435&include_contexts=course_59465)

5pm to 6:15pm

([https://sit.instructure.com/calendar?  
event\\_id=236435&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236435&include_contexts=course_59465))

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Tue Dec 6, 2022



[LR-12](https://sit.instructure.com/courses/59465/assignments/340437)

due by 11:59pm

(<https://sit.instructure.com/courses/59465/assignments/340437>)

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[EM 365/364 Lab](https://sit.instructure.com/calendar?event_id=228110&include_contexts=course_59465)

11am to 12pm

([https://sit.instructure.com/calendar?  
event\\_id=228110&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228110&include_contexts=course_59465))

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Wed Dec 7, 2022



[EM 365 Lecture](https://sit.instructure.com/calendar?event_id=228093&include_contexts=course_59465)

12pm to 1:45pm

([https://sit.instructure.com/calendar?  
event\\_id=228093&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228093&include_contexts=course_59465))

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[HW-11](https://sit.instructure.com/courses/59465/assignments/340424)

due by 11:59pm


(<https://sit.instructure.com/courses/59465/assignments/340424>)

Sun Dec 11, 2022

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 [HW-12](#) due by 11:59pm  
(<https://sit.instructure.com/courses/59465/assignments/340425>)

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 [EM 365 Lecture](#) 12pm to 1:45pm  
([https://sit.instructure.com/calendar?event\\_id=228094&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228094&include_contexts=course_59465))

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Mon Dec 12, 2022

 [EM 365 Office Hours \(Optional\)](#) 5pm to 6:15pm  
([https://sit.instructure.com/calendar?event\\_id=236436&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=236436&include_contexts=course_59465))

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Tue Dec 13, 2022

 [Design of Experiments Project](#) due by 11:59pm  
(<https://sit.instructure.com/courses/59465/assignments/340409>)

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 [LR-13](#) due by 11:59pm  
(<https://sit.instructure.com/courses/59465/assignments/340438>)

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 [EM 365 Lecture](#) 12pm to 1:45pm  
([https://sit.instructure.com/calendar?event\\_id=228095&include\\_contexts=course\\_59465](https://sit.instructure.com/calendar?event_id=228095&include_contexts=course_59465))


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Wed Dec 14, 2022

 [Design of Experiments Project Peer Evaluation](#) due by 11:59pm  
(<https://sit.instructure.com/courses/59465/assignments/340407>)

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Wed Dec 21, 2022

 [Final Exam](#) due by 4pm  
(<https://sit.instructure.com/courses/59465/assignments/340413>)

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 [HW-01](#)  
(<https://sit.instructure.com/courses/59465/assignments/340414>)

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 [HW-02](#)  
(<https://sit.instructure.com/courses/59465/assignments/340415>)

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 [HW-03](#)  
(<https://sit.instructure.com/courses/59465/assignments/340416>)

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**HW-04**

<https://sit.instructure.com/courses/59465/assignments/340417>

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**HW-05**

<https://sit.instructure.com/courses/59465/assignments/340418>

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**HW-06**

<https://sit.instructure.com/courses/59465/assignments/340419>

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