



SYLLABUS

Southern Polytechnic College of Engineering and Engineering Technology Department of Industrial and Systems Engineering

SYE 6610: Engineering Statistics

Fall 2023

# Course Information

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Class meeting time: Thursday 8:00 – 9:15 pm

Modality and Location: Online class via Teams

SYE 6610 is a 3-hour online course. We will meet live via Teams for 75 minutes each week and all classes will be recorded. Attendance is not required at the live classes, but it is strongly recommended. Each week there will be video presentations to view BEFORE the live lecture.

During the live lecture, we will mainly work problems from the chapter material and review student questions. Students will be responsible for studying course materials provided by the instructor (such as recorded lectures, articles, videos, etc.) on their own to reach the additional 2 hours of instructional time. Note that this time does not include time spent studying or working on homework – this is just the time that the student will be exposed to the course materials by the instructor

Syllabus is posted in D2L

# Instructor Information

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Name: Dr. Valentina Nino, Assistant Professor

Email: Prefer e-mail **lvallad1@kennesaw.edu**
Office Location: M 115

Office phone: 470-578-7242

Office Hours: Wednesday 1:00 to 2:30 pm on campus or online; other times by appointment

**Preferred method of communication:** e-mail directly to my KSU account. If for some reason you do not hear from me within 24 hours, please verify the e-mail address and re-send the e-mail. (Note that if you REPLY to an email sent to your D2L account from your forwarded account, it will eventually bounce.)

Please do NOT email me through D2L because I cannot respond from my regular email, and it will take longer for me to respond to you. If you would like to meet in person, it is best to e-mail me for an appointment to be sure I am available to help you. Those with appointments will be given priority over individuals who do not have appointments, though you are certainly welcome to just drop by my office at any time during office hours.

I am also willing to meet with students via telephone/online – just e-mail me for an appointment.

Please do not count on me being able to answer last-minute questions in the few hours before the assignment submission or exam deadlines.

**Communicating with you:** Important announcements will be made using the “Announcements” tool in D2L Brightspace. If the announcement is urgent (such as switching a class to online for the day with short notice), I will also e-mail students at their KSU e-mail address. **It is essential that you check your Kennesaw and D2L e-mails consistently.**

# Course Materials

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**Course Textbook:**



*Statistics.*(13th Edition), by McClave and Sincich, with MyLab Statistics. Pearson. ISBN-13: 9780135819999.

This is a DAY ONE ACCESS course material item. These materials will be accessible to you via D2L Brightspace. The cost of these materials will be billed to your student account shortly after the official Drop/Add period ends. You will receive an email from no-reply@verbasoftware.com the week before classes start containing information on how to access these materials as well as how to Opt-Out of this program.

This and subsequent emails will notify you of the charge to be applied to your student account as well as remind you how to Opt-Out of this program. By Opting Out you will lose access to these digital materials and must purchase them elsewhere.

**WE WILL USE THE TEXTBOOK EXTENSIVELY THROUGHOUT THIS COURSE BEGINNING WEEK 1. YOU WILL BE ABLE TO ACCESS THE TEXTBOOK AND MYLAB STATISTICS THROUGH A LINK POSTED ON D2L UNDER CONTENT.**

**Technology required:**

* **D2L Brightspace** is the official online learning environment for the course provided by Kennesaw State University through the University System of Georgia. The portal is free, and you can gain access to the course by logging in at http://vista.kennesaw.edu/ using your NetID and password. In Brightspace the course syllabus, course schedule, supplemental materials, recorded lectures, homework assignments and exams will be posted. You should either download these files to your computer or print them prior to class so that you will be prepared to participate. You may have to configure your browser to allow pop-ups to view the content.
* **Computer with basic headset or built-in microphone and camera** for online exams with Respondus Monitor Lockdown (required) and for participation in weekly live online classes.
* **Calculators:** We will work with lots of formulas during this class, and I have found that students understand the concepts best when they work through the formulas manually before using statistical software. To do this, all you will need is a scientific calculator that will perform combinations, permutations, and both sample and population standard deviation calculations. The calculator I use and recommend is the TI30-XA, which is easy to use and generally available from about $9.00 - $15.00 at stores like Amazon, Walmart, Target, Office Depot / Office Max, Staples, etc. You do NOT have to buy this calculator, but you do need to make sure that your calculator performs basic statistics functions and that you know how to use it.
* **Software:** You will need to use **Minitab** during this course. It is powerful, user-friendly, and commonly used in industry. You have several options for how you can access Minitab this semester:
	1. If you already have access to Minitab (any version), you can use what you have.
	2. You can purchase your own permanent copy of Minitab for $1,610.00 through minitab.com.
	3. You can rent a license of Minitab for 6 months for $32.99 or for 12 months for $54.99 with academic pricing through OnTheHub: onthehub.com.
	4. You can use the free version of Minitab made available to students in this class through the ISYE department. NOTE: Your names must be added to the approved list before you can access Minitab through this way, but it should be available during the second week of class.

I will demonstrate the most recent version of Minitab in class, but it does not matter which version you use. There may be slight differences in the versions, but most are minor, and you should be able to figure out how to work with your version even if it is not the version I show in class.

**Technology Skills Needed.**

All students are expected to be familiar with:

1. Connecting to the internet.

2. Logging in to the course website (i.e. D2L Brightspace).

3. Using internet browsers (e.g., Internet Explorer, Firefox, Chrome, etc.).

4. Downloading and opening PDF, Word, and Excel documents.

5. Elementary use of Excel including Cell Referencing and using Math Functions, no VBA required.

# Course Description

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The course will include the study of sampling concepts and data collection techniques, descriptive statistics, discrete and continuous probability distributions, sampling distributions, confidence intervals, hypothesis tests, categorical data analysis, relationships between two variables, least-squares simple linear regression analysis, and analysis of variance.

This course has a D2L course web site for use by registered students.  Any class handouts, slides, grades, announcements, and links will be available there, so please get in the habit of checking it often. To log in, go to: <https://kennesaw.view.usg.edu/>.  Your logon is the same as your KSU Net ID, and your net password.  There are help links on the website too.

**Course Prerequisites:** Graduate Standing

# Learning Outcomes

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Upon successful completion of the course the student will be able to do the following:

1. Given a scenario, the student will be able to develop measurable variables.
2. Given a data set, the student will be able to identify and perform appropriate descriptive statistics and interpret the results.
3. Given a data set with two or more variables, the student will be able to determine if there is a linear relationship, measure the strength of a linear relationship, and interpret the results.
4. Given a population of data, the student will be able to select an unbiased sample
5. Given a set of data, the student will be able to identify the correct distribution, perform the appropriate statistical analyses, and interpret the results.
6. Given a data set on at least the interval scale the student will be able to construct a confidence interval and interpret the results.
7. Given two or more sets of data on at least the interval scale, the student will be able to perform the appropriate hypothesis test and interpret the results

# Evaluation and Grading Policies

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Your final grade in this course will be determined by the total number of points you accumulate during the semester from the following graded opportunities:

Your final grade in this course will be determined using the following weights for each component of this course:

|  |  |
| --- | --- |
| Component | Possible points |
| MyLab Chapter Homework: 10 @ 12.5 points | 125 |
| Exam 1 | 125 |
| Exam 2 | 125 |
| Final Exam | 125 |
| TOTAL POSSIBLE POINT | 500 |

**Grading Scale:** Final grades are based on the following scale:

|  |  |
| --- | --- |
| **TOTAL POINTS EARNED** | **COURSE GRADE** |
| 448 – 500 points (90 – 100% of 500 points) | A |
| 398 – 447 points (80 – 89% of 500 points) | B |
| 348 – 397 points (70 – 79% of 500 points) | C |
| 298 – 347 points (60 – 69% of 500 points) | D |
| 297 points or below (below 60% of 500 points) | F |

**Grading Feedback:** I will strive to grade submissions in a timely manner. Everything will be graded within a week of due date, if not sooner. If you have any questions on our feedback/grading, please contact me.

**Note:** There is no extra credit for this course.

**MyLab Chapter Homework:** Each chapter has a graded homework assignment associated with it. These homework assignments are interactive and administered through MyStatLab, which offers a lot of support for learning. They “autograde” and you may attempt the homework assignments as many times as you wish to improve your grade, up until the due date. You can also work additional practice problems and self-tests with feedback inside MyStatLab without any negative impact to your grade. There are ten chapter homework assignments worth 12.5 points each, for a total of 125 possible points.

**Exams:** There will be three exams in this course, each worth 125 points for a total of 375 possible points. Exams will be open to the textbook and any prior notes taken by the student or provided through the course, but students may not search on the internet for answers or receive assistance from any other person. More information will be available closer to the exam date.

# Course Policies

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**Missed/Late Assigment Polocy:** The due dates and times for all graded assignments are firm – no late assignments, quizzes or exams will be accepted unless you can show objective proof of circumstances beyond your control, such as being hospitalized or too sick to complete the work on time. (Being busy at work is not a circumstance beyond your control!) Students are responsible for ensuring that they submit all graded assignments correctly and on time, so be sure that you allow yourself adequate time to complete and submit the work.

All missed/late assignments will receive the grade of zero. **Strictly enforced. This policy is very clear.** Consideration will be given when conflicts arise with official University functions (e.g., travel for athletes, debate team, etc.). You must notify the instructor of such conflicts in advance.

**Attendance Policy**

Attendance at the weekly live online classes is recommended but not required. However, students are responsible for all information discussed in the weekly classes, whether they attend live or not. The weekly live classes will be recorded for viewing if you cannot attend the live class, or for a second look at topics you may want to see again. Students who do well in online courses KEEP UP with the material. It is IMPERATIVE that you remain organized and complete work on time.

# Institutional Policies

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* [Federal, BOR, & KSU Course Syllabus Policies](https://cia.kennesaw.edu/instructional-resources/syllabus-policy.php)
* [Student Resources](https://cia.kennesaw.edu/instructional-resources/syllabus-resources.php)
* [Academic Integrity Statement](http://scai.kennesaw.edu/codes.php)

# KSU Student Resources

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This link contains information on help and resources available to students: [KSU Student Resources for Course Syllabus](https://cia.kennesaw.edu/instructional-resources/syllabus-resources.php)