

COLLEGE OF CENTRAL FLORIDA

ELEMENTARY STATISTICS

STAT2023

Spring - C (Jan. 9 – May 4)

Section 09 – meets M 6:00 pm - 8:45 pm (7-104)
Section 04 – meets TH 11:00 am - 12:15 pm (7-104)

. Course Information

Instructor Name:	Dr. José A. Toro-Clarke	Science Building 2	Office 207	ext. 1202	
e-mail:	clarkej@cf.edu	Telephone No.:	(352) 873-5800		
Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday
		12:30-1:45 pm 3:30-4:45 pm 5:00-6:00 pm	5:00-6:00 pm	12:30-1:45 pm 3:30-4:45 pm 5:00-6:00 pm	11:00 am-12:15 pm

How the professor wants me to contact him (Dr. T)?

Always through **CANVAS** inbox, never by email.

Where can I find Dr. T's Course Materials?

Also, everything you need will be in Modules in **CANVAS**: PowerPoint, Dr. T's Pre-recorded Lectures, Study Plan (Homework), and Tests.

How will Dr. T communicate with the students at large?

Dr. T will contact you through **Announcements** in **CANVAS**. So, check it daily.

How to enroll in MyLab Stat?

To enroll in the MyStatLab course, click on the MyLabs and Mastering link in the Canvas menu. Follow the prompts. Also, you will find information in Module in Canvas.

Because you must register through Canvas, the course ID is not required to register for MyLab Stat.

Extended Emergency Closure

For emergency campus closings (natural disasters, etc.) call 352-291-4499 or 800-831-9244 or check our [website](http://www.cf.edu) (CF.edu)."

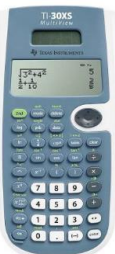


Important CF Dates Spring 2023

2022	Fall Term	Comments
Jan. 16 (M)	MLK Jr. Holiday	College Closed (there is a March)
Feb. 14 (T)	Faculty Prof Dev Day	No classes scheduled
March 13-19 (M-Sun)	Spring Break	College Closed
Apr. 28 – May 4 (F-Th)	Final Exam Week	

<https://pr.cf.edu/files/admissions/Academic.Calendar.2022-2023.pdf>

Required Materials

MyLab Stat access code: MyLab Stat will be where you complete all your assignments for the course and monitor your grade. A copy of the e-Text is provided with this code. The access code can be purchased at the CF bookstore.

Please bring your calculator with you to EVERY class!		Optional Textbook:
	 	Elementary Statistics: Triola 14th Edition
\$16 at Target (best)	\$130 new & \$100 used (superior & preferred) However, we will use STATCRUNCH , so you only need a <u>scientific calculator</u>	MyLab Stat
		Course ID: NONE NEEDED. You will link the course via Canvas.

Things you need to know about the Textbook.

We will not use the textbook. Do not purchase the textbook (unless you need a hard copy of the textbook). You must purchase the MyLab Stat Access code to complete your online assignments. You may purchase MyStatlab from the bookstore or online.

Required calculator!!!!!! (We will use STATCRUNCH instead): A scientific calculator is required for this course. While a graphing calculator is not a requirement. The **TI – 30XS** or the **TI – 30X11S** are lower-end calculators but will work for this course. **You cannot use the calculator on your phone for any exam!**

Statcrunch: Much of this course can be done using Statcrunch. It is like excel, but more stat friendly. Your StatLab access code comes with **free** access to Statcrunch. You can create box plots, scatterplots, confidence intervals, perform hypothesis testing, and so much more! Within each lesson presentation, videos showing Statcrunch steps will be included. These videos will take you through the process of using Statcrunch to answer questions from that chapter or section. This tool will be available during exams.

THE PROFESSOR RESERVES THE RIGHT TO MAKE CHANGES.

II. Course Description

This course includes a study of descriptive statistics, probability theory, random and binomial variables, linear correlation and regression, normal distributions, confidence intervals, and hypothesis tests. I expect you to complete your assignments in a timely fashion and ask questions when you need help. It is your responsibility to keep track of when assignments are due. If you do not understand something is your responsibility to ask questions. However, before asking the questions, I expect that you read the whole syllabus. It is your responsibility to do the work assigned. I do not give you a grade for this course; I only record the grade representing your knowledge of the subject matter.

III. Student Learning Outcomes

Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods. Learning Outcomes are measured via quizzes and tests.

1. Perform accurate computations using the order of operations with and without technology.
2. Identify and organize relevant information and complete the solution of an applied problem.
3. Interpret and communicate an understanding of visual representations of data.
4. Demonstrate mathematical number sense and unit sense.

IV. Assessment

Class Attendance (is required): This is a lecture-based course, so attending class is expected. Attendance carries **5%** of the final grade. If a student fails to attend a lecture, the student will still be responsible for the material missed (see **Dr. T's TV lectures** for previous video lectures). However, you need to be registered in **MyLab Stat** before Friday, January 16, 2022, for your attendance to count (if you cannot afford it because you depend on the money of Financial Aid, remember that **MyLab Math** has a **14-day Trial Version** period).

Tests (15% per Partial Test) Attendance is required for each Test. **Make-up exams will not be given.** Life happens, so, if the **student misses a test**, the **final exam grade will replace that test score. Even if it is a GOOD excuse**, there will be **no make-up**. However, with prior approval, you can take the exams during a different section-time period. If the student misses 2 or more exams, zeros will be given. (**This does not apply to college-sponsored activities**). ALL grades count: in other words, the lowest grade is **NOT** dropped. **However, a zero representing a missed test OR a low-test score will be replaced by the final exam score** (if you missed three consecutive lectures, the Final Test will not replace one missed Test or the lowest Test).

Homework (Study Plan) carries a weight of 25% (Study Plan): You will find the homework schedule and assignments online, and you will submit your homework online through Pearson **MyStatLab**. You will have up to each **partial Test (once you have taken the Test, that section will close. No extensions, no MATTER WHAT!!!)**

If you do the Study Plan (Homework/Quizzes) problems, you will be well prepared for the tests, as these problems are closely aligned with the test questions. Further, the online tests and quizzes have strict requirements for the form in which an answer must be submitted. Practice with the homework and tutorial problems will guide you in structuring your solutions. The scores will be transferred manually to Canvas on a weekly basis. You will get immediate feedback on your homework scores, which will be posted in your online grade book. A missed homework assignment will be posted as a zero.

Homework (Study Plan) will comprise 25% of your grade.

You can attempt each HW/Q as many times as you need.

Where to go in Canvas to find the coursework?

The course is based on a modular system, each **HOME** or **MODULE**.

Proctoring: The Test will be administered by me in the classroom or **CF Testing Center** (contact me for this option).

			*Grade Example	
Assignments are weighted as follows:	Weight System	Point System	Weight System	Point System
Homework (Study Plan)	25%	250	$0.25 * 85\% = 21.25\%$	$250 * 85\% = 212.5$
3 Tests (in class with Statcrunch or Excel)	45%	450		
Test 1	15%	150	$0.15 * 70\% = 10.50\%$	$150 * 70\% = 105.0$
Test 2	15%	150	$0.15 * 79\% = 11.85\%$	$150 * 79\% = 118.5$
Test 3	15%	150	$0.15 * 85\% = 12.75\%$	$150 * 85\% = 127.5$
Comprehensive Final Work It is a work in that you will apply all the concepts you will learn in the course using Statcrunch and the proper interpretation. This work requires three processes of Feedback.	25%	250	$0.25 * 90\% = 22.5\%$	$250 * 90\% = 225.0$
Total	100%	1,000	78.85%	$788.5 \div 1000 = 0.7885$ SO $0.7885 * 100 = 78.85\%$

***Grade Example** will always have a minor discrepancy between the margins of error.

The Comprehensive Final Work (Final Work) would be the part where you will show the skills you got through Statcrunch software (here, we are interested in your ability for interpretation). The **Final Test** can be accessed in Home or Modules in **CANVAS** (this is a **Word** document; the data is in **Excel Spread Sheet**). We will show how to do this during the course PowerPoints Presentations. For the **Comprehensive Final Test**, you are expected to work on this during the whole semester (**See Rubric Below and Canvas**). The due date for this part is the first day of the Finals Week at 11:59 pm.

Rubric: STA2023 Final Work

The total points to obtain is 102 for Final Work, of which 28 are described below. The student will be required to use the software we use in class (**Statcrunch**) to create the graphs and the output needed to interpret the problems correctly. Now the 28 points are detailed below:

- **2 points per Test (6 in Total) for Feedback** – You are required to make three submissions for feedback after each Test. Once we cover the material, you are required to do the following:
 - **First, Feedback Submission** (the day after Test 1) – you need to attempt all the problems related to Chapters 2, 3 & 10 (section 2.4). If you do not attempt them, you will lose **2** points.
 - **Second, Feedback Submission** (the day after Test 2) – you need to attempt all the problems related to Chapters 4 & 5 and fix all the recommendations I gave you for the **First Feedback** problems Chapters 2, 3 & 10 (section 2.4). If you do not attempt them, you will lose **2** points.
 - **Final, Feedback Submission** (the day after Test 3) – you need to attempt all the problems related to Chapters 6, 7, 8 & 9 and fix all the recommendations I gave you for the **First**

and Second Feedback problems in Chapters 2, 3 & 10 (section 2.4), and Chapter 4 & 5. If you do not attempt them, you will lose 2 points.

- **Final Submission** is the due date is the first day of the Finals Week at 11:59 pm.
- **5 points for Organization** - This is not copied and pasted here you need to have structure and the proper interpretation of the answers. Most of the question is for you to do an interpretation not for you to answer. I am not looking here a definition is an execution for that problem.
 - **Learning Outcomes implemented here:**
 - LO-1: Perform accurate computations using the order of operations with and without technology.
 - LO-2: Identify and organize relevant information and complete the solution of an applied problem.
 - LO-3: Interpret and communicate an understanding of visual representations of data.
- **5 points for Creativity** - Show the skills and understanding of what you can do using Word and other technological tools to demonstrate your Statistical knowledge.
 - **Learning Outcomes implemented here:**
 - LO-1: Perform accurate computations using the order of operations with and without technology.
 - LO-2: Identify and organize relevant information and complete the solution of an applied problem.
 - LO-3: Interpret and communicate an understanding of visual representations of data.
 - LO-4: Demonstrate mathematical number sense and unit sense.
- **5 points for Execution of Statistics knowledge** - This is a project to achieve a maximum understanding of this course.
 - **Learning Outcomes implemented here:**
 - LO-1: Perform accurate computations using the order of operations with and without technology.
 - LO-2: Identify and organize relevant information and complete the solution of an applied problem.
 - LO-3: Interpret and communicate an understanding of visual representations of data.
 - LO-4: Demonstrate mathematical number sense and unit sense.
- **Curve Ball** - 7 points for explaining a live problem to the Professor (Professor will select the problem) - This will happen on the day of our Final Exam.
 - Upload a video of yourself using Zoom (make sure your voice and your face are seen in the video and show me how you solve the problem with Statcrunch using a shared screen). Make one if you do not have an account (it is free). Once you have submitted the final work, I will send you an email with the problem I want to see.
 - Here's a link (**Zoom**) to "[Local recording](#)." In case they forgot to change the recording to a local drive, here's a link on [how to retrieve those videos](#).
 - **Learning Outcomes implemented here:**
 - LO-1: Perform accurate computations using the order of operations with and without technology.
 - LO-2: Identify and organize relevant information and complete the solution of an applied problem.
 - LO-3: Interpret and communicate an understanding of visual representations of data.
 - LO-4: Demonstrate mathematical number sense and unit sense.

Grades: The final grade will be calculated based on your performance on tests (In Class), and homework assignments (In MyStatLab). The following system will be used for the final grade:

A: 89 – 100% **B+: 89 – 87 %** **B: 80 – 86 %** **C+: 79 – 77%**
C: 70 – 76% **D: 60 – 69%** **F: 0 – 59%**

Tutoring: Tutoring is **FREE** for **CF** students!

Ocala Campus-Mathematics Lab Building 7, Room 106 352-854-2322 ext. 1259
Ocala Campus-Learning Support Center Building 3, Room 101 ext. 1246

Tutor.com:

To access Tutor.com, click on the link in the left-hand menu of the Canvas home page to set up your personal tutor session. This service is available 24/7 during the semester. You can choose a specific tutor and schedule a session or connect with the one available for drop-in appointments. When you enter the tutoring meeting, you must be prepared with specific questions you would like to discuss with your tutor. Please be aware, that tutor will not complete assignments for you, and they are there to help you work through challenging material. I look forward to seeing you succeed in our class, and completing these tutoring sessions is one more way to help ensure that happens.

V. Course Schedule/Outline

STAT2023 Elementary Statistics Tentative Lecture Schedule		
Weeks	Topic	Sections Covered (Homework-Study Plan)
		Discussion (Required Read) See the Extra Credit Policy for more details This can be found in Home or Modules in CANVAS 1 hour
ON OWN	Chapter 1 Introduction to Statistics	Chapters 0 & 1 See Module 1 – YouTube Videos for supplemental material.
Week 1	Syllabus	Introduction See Dr. T TV (Ch-2) in Modules See Module 1 – YouTube Videos for supplemental material.
	Frequency Distributions	Chapter 2 (2.1 & 2.2) The Syllabus should be read before the beginning of the Second Week.
Week 2	Graphics and Correlations	2.3
	Correlations and Regressions	2.4 (includes topics of 10.1)

**STAT2023 Elementary Statistics
Tentative Lecture Schedule**

	Correlations and Regressions	2.4 (includes topics of 10.2) See Dr. T TV (Ch-3) in Modules See Module 1 – YouTube Videos for supplemental material.
Week 3	The measure of Center & Measures of Variation	Chapter 3 (3.1 & 3.2)
	Measures of Variation & Measure of Relative Standing and Boxplots	3.2 & 3.3
Week 4	Standing and Boxplots	3.3
	Section 2.4 is Chapter *10*	**Study Plan Test 1 (Chapters 1-3, *10*) Required a minimum of 70% to receive extra credit for Test 1 SP should be almost complete before attempting Test 1 5 hours
Week 5	Test 1 in the classroom	Test* 1 (Chapters 1-3, 10) 85 minutes Submit Final Work for initial Feedback. Need to do all the problems related to the Topics of Test 1. 2 hours
	Probability	See Dr. T TV (Ch-4) in Modules See Module 2 – YouTube Videos for supplemental material. Chapter 4 (4.1 & 4.2)
Week 6	Probability	4.3
	Permutations & Combinations	4.4
Week 7	Binomial Distribution & Expected Value	See Dr. T TV (Ch-5) in Modules See Module 2 – YouTube Videos for supplemental material. Chapter 5 (5.1 & 5.2)
		**Study Plan Test 2 (Chapters 4 & 5) Required a minimum of 70% to receive extra

**STAT2023 Elementary Statistics
Tentative Lecture Schedule**

		credit for Test 2 SP should be almost complete before attempting Test 2
Week 8	Test 2 in the classroom	5 hours Test* 2 (Chapter 4 & 5) 85 minutes Submit Final Work for second Feedback. Need to do all the problems related to Topics of Test 2.
		2 hours See Dr. T TV (Ch-6) in Modules See Module 3 – YouTube Videos for supplemental material.
Week 9	Normal Probability Central Limit Theorem	Chapter 6 (6.1 & 6.2) 6.4
		See Dr. T TV (Ch-7) in Modules See Module 3 – YouTube Videos for supplemental material.
Week 10	Confidence Intervals Confidence Intervals	Chapter 7 (7.1) 7.2
		See Dr. T TV (Ch-8) in Modules See Module 3 – YouTube Videos for supplemental material.
Week 11	Hypothesis Testing	Chapter 8 (8.1)
Week 12	Hypothesis Testing	8.2 & 8.3 See Dr. T TV (Ch-9) in Modules See Module 3 – YouTube Videos for supplemental material.
Week 13	Two Proportions Two Means Independent	9.1 9.2
Week 14	Two Means Dependent	9.3
		**Study Plan Test 3 (Chapters 6-9) Required a minimum of 70% to receive extra credit for Test 3

STAT2023 Elementary Statistics Tentative Lecture Schedule		
		<p>SP should be almost complete before attempting Test 3</p> <p>5 hours</p>
Week 15	Test 3 in the classroom	<p>Test* 3 (Chapters 6-9)</p> <p>85 minutes</p> <p>Submit Final Work for Last Feedback. Need to do all the problems related to the Topics of Test 3.</p> <p>2 hours</p>
		<p>Discussion (Required Read)</p> <p>See the Extra Credit Policy for more details This can be found in Home or Modules in CANVAS</p> <p>1 hour</p>
Week 16	Last Call 11:59 pm	<p>Final Submission is the due date is the first day of the Finals Week at 11:59 pm</p> <p>2-4 hours</p>

See the **Graphical Syllabus** on the last page.

Test* – if missed, you can replace the ZERO with the FINAL EXAM.

****Study Plan (SP)** – Once you do a Problem in the SP correctly and fail to do so in the Test, MyStat Lab will reduce your points in the SP. So, do not do the minimum, because you could be able to earn no extra credit bonus points.

Quizzes	Required Quizzes
Due by Monday, January 16, 2023	
Quiz 0.1	Order of Operations
Quiz 0.2	Number Sense
Quiz 0.3	Visual Representation of Data
Quiz 0.4	Problem-Solving

This is something some students tend to request at the end of the semester, before finals:

Dr. T, could I get some Extra Credit to increase my grade?

No, the reason is that there is extra credit already in place. The Study Plan (Homework) and the discussion are plans already. The detail of extra credit is detailed below.

You can earn up to 70% in extra credit:

Extra Credit Policy:

1. Mandatory Reading (5% for the Final Test):
 - My published article “*A Participative and Individualized laboratory: A Strategy for Increasing Students Success in College-Level Math Courses*” from the book “*The Mathematics Education for the Future Project*” Proceedings of the 15th International Conference “*Theory and Practice: An Interface or A Great Divide*” August 4-9, 2019, Maynooth University, Kildare, Ireland.
 - Once you read this, write five sentences of your interpretation and opinion of why I do this (which needs to be related to my published article).
2. Visits me during office hours. During the first two weeks of class. Let’s have a conversation with you and me. That initial conversation will give you a **5% Extra Credit** for the First Partial Test.
3. Do **Study Plans** (up to 10 points) for each Test (Before attempting the Tests, you can redo them after doing the Test for a better score). Need to accomplish a Mastery in the knowledge of **70% or higher**
 - You could earn between **7-10** points. They are 4 Tests (T1, T2, and T3), so you could earn between 28-40 points. If you earn **70%**, you will earn **7** points; if you get **84%** will be **8** points; and if it is **95%** will be **10** points. If you can’t reach the minimum 70% mark after each Test (48 hours after the Test, this will not apply in the transition from Test 3 to the Final Work).
 - The average of each of the Homework for the SP for Test 1, SP for Test 2, and SP for Test 3 will give you the opportunity of a potential Extra Credit for the Final Work. The same conditions apply – if you earn **70%**, you will earn **7** points; if you get **84%** will be **8** points; and if it is **95%** will be **10** points.
4. Going to **Tutoring** (**seeking help is a wise move**) and taking and getting help from the Tutor in Math Lab up to 20 Points:
 - You could earn up to 5% per Test (you need to register your assistance using your CF code). I will request the attendance weekly report (or per Test) from the Math Lab Coordinator. I encourage you to use the Math Lab from Bldg. 2.

Additional Tips

- Make sure your browser is up to date.
- Keep or print a copy of the course syllabus and schedule on your computer.
- Check the course and course email regularly.
- Questions about grades or other personal matters should be emailed to the facilitator(s).
- Set aside specific times each week to complete class activities. If not, your other work will expand to fill all the time you have.
- Expect electronic glitches/power outages and plan ahead. Don’t wait until the last minute to submit your work.
- Maintain backup copies of all of your coursework on a flash or jump drive.

STATEMENT: Due to unforeseen happenings, it may be necessary for the course assignment schedule to be altered. The instructor will always strive to be fair about any changes.

The College of Central Florida is committed to helping you succeed and achieve your academic, personal, and career goals. There is a wide range of resources and support services available to you. When students are connected early to resources and support systems on campus, they are more likely to stay in classes, perform better in those classes, and complete their paths more quickly. One example is through an Early Support Program, where you may receive an email indicating that your professor or advisor is reaching out directly to help connect you to support services. This may include connecting you to Tutoring, financial support, psychological support services, and disability services, to name a few. Be aware that you can also reach out to these services independently. Additionally, we offer disability services, a testing center, and many other resources which are all available to you. [Please refer to the College Resources, Dates, and Policies document in your Canvas course to learn more about these supports.](#)

Graphic Syllabus

