

The University of Texas at El Paso
College of Science
Department of Mathematical Sciences

Please read the syllabus very carefully, especially the bold portions.

Course #: STAT 4329/5329/6329 (CRN: 24213/23247/25972)
Course Title: **Statistical Programming**
Term: Spring 2024
Credit Hours: 3
Class Time and Location: **TR 10:30 AM – 11:50 PM at Bell Hall 130**
Instructor: **Dr. Nilotpal Sanyal**
Office Location **Bell Hall 328**
and Contact: Phone: 915-747-6763
E-mail: nsanyal@utep.edu
Office Hours: **Tuesday 1:00 PM – 2:00 PM, or by appointment**
TA: Arnab Joshi, Abdul Latif Baisse
Course Description & Learning Outcomes: This course will introduce the students to two most commonly used programming languages in statistics and data science, R and Python. The students will learn data entry and export, various data/object types, data manipulation, use of various operators and pre-defined functions, description of the data using tables, graphics and summary numbers, creation of user-defined functions, random variable generation, data simulation, and permutation methods (bootstrap and jackknife). By the end of this course, the students are expected to be well equipped to be able to write descriptive statistical reports about datasets.
Course Materials: Required textbook: None
Suggested: - An Introduction to R
(<https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf>).
- Introductory Data Science using R
(<https://bookdown.org/dereksonderegger/444/>)
- Python Tutorial
(<https://www.geeksforgeeks.org/python-programming-language/>)
- Python Data Science Handbook
(<https://jakevdp.github.io/PythonDataScienceHandbook/>)
Course Assessment and Grading: **Homework: 25%**
Quizzes: 25%
2 Midterms: 25%
1 Final Exam: 20%
Class attendance: 5%
Grading scale: 90–100% = A, 80–89.99% = B, 70–79.99% = C, 60–69.99% = D, <60% = F.

Course Schedule: Duration: *Jan 16 – May 02*
Homework and Quizzes (in-class): TBA in the class
Midterm 1 (in-class): *March 5, Tuesday*
Course Drop/Withdrawal Deadline: *March 28*
Midterm 2 (individual project due date): *April 18, Thursday*
Final Exam (in-class): *May 9, Thursday, 10:00 AM – 12:45 PM*

No late homework will be accepted unless the reason is excusable as deemed by the instructor. If late homework is accepted, it may be graded with a penalty depending on the delay.

No make-up exam will be given unless there is a documented emergency.

Attendance and Participation: **Class attendance will be used in grading and is very much encouraged. In order to increase overall participation, students will sit in different places in each class as suggested by the instructor.**

Illness Precautions: Please stay home if you have symptoms of a communicable illness. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations.

Excused Absences and/or Course Drop Policy According to UTEP Catalog, “At the discretion of the instructor, a student can be dropped from a course because of excessive absences or lack of effort. A grade of “W” will be assigned before the course drop deadline and a grade of “F” after the course drop deadline.” See Policies and Regulations in the UTEP Undergraduate Catalog for a list of excuse absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course. I will provide 24 hours advance notice via email.

Or

I will not drop you from the course. However, if you feel that you are unable to complete the course successfully, please let me know and then contact the [Registrar’s Office](#) to initiate the drop process. If you do not, you are at risk of receiving an “F” for the course.

Incomplete Grade Policy: Incomplete grades may be requested only in exceptional circumstances after you have completed at least half of the course requirements. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines.

Technology Requirements: **Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.**

You need to have access to a computer/laptop. You will need to download or update the following software: Microsoft Office, Adobe

Acrobat Reader, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and able to access all parts of the course.

If you do not have word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about [Microsoft Office 365](#) and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP [Help Desk](#) as they are trained specifically in assisting with the technological needs of students. Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!

Accommodations Policy: The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

Scholastic Integrity: **Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion.**

Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as one's own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the [Office of Student Conduct and Conflict Resolution \(OSCCR\)](#) for possible disciplinary action. To learn more, please visit [HOOP: Student Conduct and Discipline](#).

Course Resources: UTEP provides a variety of student services and support:

Technology Resources

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the

UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

Academic Resources

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.
- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.
- [The Miner Learning Center](#): Join peer-led study sessions in person or online to review content and discover study strategies in core curriculum courses.
- [UTEP Edge](#): UTEP's cross-campus framework for student success and empowerment – develops students' assets through high-impact experiences made possible by the expertise and dedication of faculty, staff, alumni, and community partners.

Individual Resources

- [Student Success Help Desk \(SSHHD\)](#): Students experiencing challenges or obstacles to academic success including registration, financial, food, housing, and transposition resources may submit a ticket request assistance to studentsuccess@utep.edu
- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.

Last updated: 13/01/2024

Disclaimer: Changes to this syllabus, if deemed necessary by the instructor, may be made.