

SYLLABUS, MATH 4701 SECTION 01, FALL 2020

PROBABILITY AND STATISTICS I

(Hyperlinks for accessibility are provided throughout this document with full URLs noted in the footnote.)

INSTRUCTOR INFORMATION AND OFFICE HOURS

Dr. Lirong Yu

Office: Seq 233

Email: lyu@daltonstate.edu

Office Phone: 706-272-2161

Student Hours (or by appointment):

1. Monday: 12:15 – 1:30 PM, (Math Lab Seq219)
2. Tuesday: 1:40 – 2:55 PM, (Math Lab Seq219)
3. Wednesday: 12:15 – 1:30 PM, (Math Lab Seq219)
4. Thursday: 1:40 – 2:55 PM, (Math Lab Seq219)

MEETING TIMES AND LOCATION

Monday and Wednesday, 10:50 – 12:05 pm, in Memorial Hall - 101A

REQUIRED TEXT AND MATERIALS

Probability and Statistical Inference 9th Edition, by Hogg, Tanis, Zimmerman, Pearson, ISBN-13: 978-0-321-92327-1.

PRE-REQUISITES AND CO-REQUISITES

Math 2255.

COURSE DESCRIPTION

The course will cover selected material in Chapters 1 through 8 of the text. The topics in probability and statistics include sampling distributions, random variables (normal, t, chi-square and F), moment generating function methods, Bayesian estimation and introduction to hypothesis testing.

STUDENT LEARNING OUTCOMES

Upon completion of this course, the student should be able to:

- Use the basic laws of probability and state the axioms of probability;
- Identify the misuses of statistics and invalid conclusions from probability;
- Demonstrate knowledge of the historical development of statistics and probability including contributions from diverse cultures;
- Use combinatorial methods to find the number of outcomes related to an event;
- Analyze, compare, and display data in a variety of ways;
- Pose a question, design a study, and collect data, analyze and interpret the resulting data;
- Identify random variables, i.e., normal, t, chi-square and F, and solve problems that require the use of continuous distribution tables;
- Use sample data to obtain inferences about the population, i.e., perform hypothesis tests, construct and interpret confidence intervals, etc;
- Explore the relationship between two variables;
- Use appropriate technology to develop ideas, generate data, and to analyze data;
- Find the moment-generating functions for discrete and continuous random variables.

COURSE POLICIES

- Students are expected to attend class and actively participate, both of which are crucial for success in this course. Arrive on time for class each day and do not distract other students during class.
- Students should silence and put away all cell phones, music players, or other electronic devices before class begins. Each student should bring their calculator and notes to class every day.
- In the event that a student misses a class, it is their responsibility to find out what was discussed that day, to read the relevant material in the textbook, and to attempt practice problems on that material from the end of the relevant section.
- Each student should check their Dalton State email and Georgia View regularly (at least once a day) for announcements, schedule changes, or other information. Not checking email or Georgia View will not be an excuse for missing such information.
- Students must spend a significant amount of time outside of class working problems and building an understanding of the material - this is when the majority of learning will take place. Grades in this course are based on performance, not effort, so students should work toward understanding and not just putting in time.
- Students should seek help outside of class if they are struggling with the content of this course by going to their instructor's office hours, utilizing the Math Lab (Seq 219), or getting a tutor through the Dean of Students Office.
- Students are responsible for knowing the policies of this course and the information on this syllabus. Changes to course policies or this syllabus will be announced in class and posted on Georgia View.

GRADING POLICY

We are going to use WeBWork for homework assignment.

Three in-class tests	50%
A final exam	25%
Homework Online	20%
class participation	5%

Grade= $0.5*(\text{test average}) + 0.25*(\text{final exam}) + 0.2*(\text{homework average}) + 0.05*(\text{Class participation})$. Your letter grade will be based on the following scale:

F: 0-59%, D: 60-69%, C: 70-79%, B: 80-89%, A: 90-100%

ATTENDANCE

Attending and participating in class are important to learning and understanding the material in this course. Each day when there is not an exam, students' class participation will be graded on a 10-point basis. Students who are significantly late to class, leave class early, or who do not participate in class activities (including Plicker questions and practice problems) will not receive all 10 points attendance credit. Class days or quizzes missed due to excused absences (illness, family emergency, school or athletic activity, military service, jury duty, etc) will not count against a student as long as they provide timely documentation for their absence.

PLICKER QUESTIONS

Most class days there will be various multiple choice questions posed in class for students to answer using their Plicker cards, which will be provided to them the first day of class. Every student has been assigned a number corresponding to a Plicker card, so each student must ensure they have the correct assigned card. Participation in Plicker questions counts towards the attendance point each day, so it is the responsibility of each student to bring their card to class each day. If a student loses their Plicker card, they can print or display their specific numbered card off from the website <http://www.plickers.com>.

HOMEWORK

There will be online homework assigned on WeBWork. Instruction for WeBWork will be given in-class and on Georgia view. Due dates for all homework assignments can be found on WeBWork. Students should

feel free to utilize the Math Lab (Sequoia Hall 219) while working on homework so they may ask questions and get help as needed.

EXAMS

There will be a total of four tests given during the semester and a cumulative final exam at the end of the semester. Students may use a scientific calculator on the exams, but may not use a graphing calculator, their cell phone, or any other electronic device without permission from the instructor. At the end of the semester, your lowest test score will be dropped. Please show your work as much as possible on your test paper. The dates for all exams are listed on the tentative course schedule but are subject to change. Changes in the test schedule will be announced in class and on Georgia View.

EXTRA HELP

If students need extra help in this course, they have several options. First and foremost, students should feel welcome to stop by your instructor's student hours if they have questions on the content or on specific problems (or make an appointment for a time that works for both). Students can also email short questions to their instructor – a reply within 24 hours can be expected, but not generally in the evenings. Students are encouraged to work with other students on the homework and while preparing for quizzes and exams. The Math Lab is located in Sequoia Hall 219 and is available for help with this course. The Math Lab is generally open Monday-Thursdays 8 AM to 8 PM and is a great place to work with other students or get individual help from workers as needed. Lastly, students should contact the Dean of Students Office for information on tutoring and peer instruction as soon as such a need is recognized. The earlier that tutoring is started, the better chance it has of making a difference.

CHEATING

Cheating of any kind on any assignment or exam is a violation of the student code of conduct and will result in a score of 0 for that assessment and a cheating incident report being filed with the college. In extreme circumstances, cheating may also result in an automatic failing grade for the course.

LATE WORK/MAKE-UP POLICY

Make-up exams or assignments will be given **only** at the discretion of the instructor and **only** for emergencies, school or athletic activities, or other unavoidable situations. If possible, you must notify your instructor in advance if you need to miss an exam so that we can schedule a make-up time. If an emergency causes you to unexpectedly miss an exam, you must talk to or email your instructor within **24 hours** of the missed exam and you must provide documentation to verify your absence. All make-up exams will be scheduled with and taken in the Testing Center (Liberal Arts Building 103, 706-272-2606) but you must contact your instructor before an appointment may be made. Make-ups for in-class work

will be given in cases of emergencies, school or athletic activities, or other unavoidable situations; students needing such accommodation must e-mail or contact their instructor as soon as a conflict is known.

EMERGENCY INSTRUCTIONAL PLAN

In the event the college is closed due to inclement weather or another unforeseen event, students will consult the schedule provided with this syllabus to determine which section would be covered during the missed class day. Students will read the corresponding section in the textbook, and should complete the corresponding WeBWork assignment before returning to class as usual. Students should check Georgia View for announcements and any changes to the schedule that result from the missed class. Students should also check their email for any additional information or assignments sent from their instructor. The instructor will be available via email for questions when the college is closed unless power outages prevent access to the internet.

CARE TEAM

The Campus Assessment, Response, and Evaluation Team, also known as CARE, at Dalton State College engages in proactive and collaborative approaches to identify, assess, and mitigate potential risks associated with members of the campus who exhibit concerning or unusual behaviors. Report a concern through the [CARE Reporting Form](#)ⁱ. Should you have questions, contact the Dean of Students' Office at 706.272.4428.

DISABILITY ACCESS

(From [Disability Access](#)ⁱⁱ website)

Students with disabilities or special needs are encouraged to contact Disability Access. In order to make an appointment or to obtain information on the process for qualifying for accommodations, the student should visit the [Disability Access Library Guide](#)ⁱⁱⁱ or contact the Disability Access office.

Contact information

Andrea Roberson, Associate Director of Disability Access and Student Support Services
Pope Student Center, upper level
706-272-2524
aroberson@daltonstate.edu

ETHICAL CONDUCT

Academic Dishonesty Cheating and plagiarism are a part of the Dalton State Student Code of Conduct, which can be found in its most updated form at [Dalton State Student Code of Conduct](#).^{iv} ANY assistance

provided or given in any way toward work in a class constitutes cheating, unless such behavior is authorized by your instructor. Additionally, any use of the ideas or words of others should be noted, or this will constitute plagiarism. Using another students' work or collaborating on an assignment not designated as collaborative is unacceptable. Furthermore, presenting work that was completed for another class, while not plagiarism technically, is not the same as presenting original work, and is therefore unacceptable unless it has been authorized by your instructor. For more details on what Dalton State considers to be Academic Dishonesty, please review the Student Code of Conduct. Instructors will assign grades based on classroom performance. Additional sanctions may be provided as a learning experience from the Student Conduct process.

Classroom Behavior Dalton State is committed to respect via the Roadrunner Respect pledge. To learn more, please visit [Roadrunner Respect](#).^v "I pledge to show my fellow Roadrunner students, faculty, staff, and administration respect by treating others the way they want to be treated and by thinking about others first before making decisions that might affect them."

COURSE WITHDRAWAL STATEMENT

The last day to drop this class without penalty (a W or a required signature) is **Friday, October 16**. If you complete the proper paperwork to drop the course by this date, you will be assigned a grade of W. After this date, withdrawal without penalty is permitted only in cases of [Extreme Hardship](#)^{vi} as determined by the Vice President for Academic Affairs; otherwise a grade of WF will be issued. Students who fail to complete the official drop/withdrawal procedure will receive the grade of F. Withdrawal from class is a student responsibility. The grade of W counts as hours attempted for the purposes of financial aid.

FULL WITHDRAWAL STATEMENT

The proper form for withdrawing from all classes at the college after the official drop/add period but before the published withdrawal date ([Academic Campus Calendar](#)^{vii}) is the [Schedule Adjustment Form](#)^{viii}. All students must meet with a staff member at the Dean of Students office in the upper-level of the Pope Student Center to initiate the withdrawal process and complete an exit interview. After meeting with the staff member, students will then finalize the withdrawal process in the Enrollment Services Office.

GRADE APPEALS

A student may file a formal challenge to a grade if there is unequivocal evidence that one or more of the following applies:

- a) It was a direct result of arbitrary and capricious conduct on the part of the instructor;
- b) The instructor discriminated against the student on the basis of a protected classification as the term is defined by Federal Law, Georgia State Law, or the Administrative Code of the City of Dalton;
- c) The grade was incorrectly calculated;

- d) A clerical error occurred in recording the grade; or
- e) A mitigating circumstance prevented the student from completing a final assignment or attending the final exam.

To appeal a grade, the student must notify the instructor in writing no later than two days after the posting of final grades. See [Grade Changes and Appeals](#)^{ix} for the complete documentation.

ACADEMIC PROGRESSION

To remain in academically good standing, students must maintain an institutional GPA of 2.0 or higher. Students who do not maintain a 2.0 move through a sequence of statuses ranging from Academic Warning to Academic Probation to Academic Suspension to Academic Dismissal. See [Academic Progress](#)^x for the complete documentation.

OFFICIALLY APPROVED DSC GROUPS AND ACTIVITIES

When students are engaged in officially approved Dalton State groups or activities that require them to participate in events off campus during school days, they shall be treated similarly to any faculty or staff member acting in that same capacity. Thus, just as faculty and staff have excused absences from their regular work schedules, students shall be excused from class without penalty if they are off campus representing Dalton State College in an approved, official capacity during their regular class time. Examples include presenting a paper or otherwise participating in a conference, attending a University System student affairs event, participating in intercollegiate competition (athletic or academic), participating in an approved field trip, etc. Just as faculty and staff members are required to submit Request to Travel forms for approval, in order to be excused, the student needs to provide the following information to the instructor prior to the date when he/she will be absent from class:

- notification of the event (in the case of athletics, students should provide each instructor a schedule of away events at the beginning of the semester or as soon as possible after the schedule is available);
- estimated time of departure from and return to campus (for example, if a student has an away game in the evening and will not be leaving campus until 3:00, he/she will not be excused from classes prior to that time on that day; similarly, if the event is in the morning and the student will be returning to campus during the day, he/she is expected to attend any class scheduled after the return trip); and
- contact information for the person or organization sponsoring/authorizing the student's participation in the event

The student shall be allowed to make up any work missed during the time he/she is off campus representing DSC in an official capacity. He/she shall discuss what will be missed with the instructor and make arrangements to make up any assignments, tests, presentations, etc. scheduled on that date.

TITLE IX INFORMATION

Student Sexual Misconduct Policy^{xi}

In accordance with Title IX of the Education Amendments of 1972 (“Title IX”), the University System of Georgia (USG) does not discriminate on the basis of sex in any of its education programs or activities or in employment. The USG is committed to ensuring a safe learning and working environment for all members of the USG community. To that end, this Policy prohibits sexual misconduct, as defined herein.

Please visit the [Title IX at Dalton State web page](#)^{xii} for additional information on the [policy](#)^{xiii}, [How to Report](#)^{xiv}, [Resources](#)^{xv}, and [Campus Programs](#)^{xvi}.

HOUSE BILL 280

[House Bill 280](#)^{xvii} commonly known as the “campus carry” legislation, is effective as of July 1, 2017.

FULL URL LINKS

ⁱ [CARE Reporting Form:](#)

https://cm.maxient.com/reportingform.php?DaltonStateCollege&layout_id=1

ⁱⁱ [Disability Access:](#) <http://libguides.daltonstate.edu/c.php?g=24716&p=149667>

ⁱⁱⁱ [Disability Access Library Guide:](#) <http://libguides.daltonstate.edu/c.php?g=24716&p=149663>

^{iv} [Dalton State Student Code of Conduct:](#) https://www.daltonstate.edu/campus_life/code-of-conduct.cms

^v [Roadrunner Respect:](#) https://www.daltonstate.edu/campus_life/respect-photo-gallery.cms

^{vi} [Extreme Hardship:](#)

<https://www.daltonstate.edu/skins/userfiles/files/DSC%20website%20landing%20page%20information.pdf>

^{vii} [Academic Campus Calendar:](#) <https://www.daltonstate.edu/about/calendars.cms>

^{viii} [Scheduled Adjustment Form:](#) <https://www.daltonstate.edu/skins/userfiles/files/schedule-adjustment-form.pdf>

^{ix} [Grade Appeals:](#) https://libguides.daltonstate.edu/ld.php?content_id=42740257

^x [Academic Progression:](#) https://libguides.daltonstate.edu/ld.php?content_id=42740270

^{xi} [Student Sexual Misconduct Policy:](#) <http://www.usg.edu/policymanual/section4/policy/C327/>

^{xii} [Title IX at Dalton State web page:](#) <https://www.daltonstate.edu/about/title-ix.cms>

^{xiii} **Title IX Policy:** <https://www.daltonstate.edu/about/title-iv-policy.cms>

^{xiv} **Title IX How to Report:** <https://www.daltonstate.edu/about/title-ix-report.cms>

^{xv} **Title IX Resources:** <https://www.daltonstate.edu/about/title-ix-campus-community-resources.cms>

^{xvi} **Title IX Campus Programs:** <https://www.daltonstate.edu/about/title-ix-campus-community-resources.cms>

^{xvii} **House Bill 280:** <http://www.usg.edu/hb280>