

# Grayson College Mathematics Department

## Faculty Instructor's Syllabus

**Please Note: Due to extenuating circumstances, including public health issues, course and testing delivery methods, instructional schedules, housing contracts, campus procedures and/or operating hours may be altered, interrupted and/or ceased for a limited or extended period of time. Such changes will be posted on the College website.**

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<b>Professor's Name:</b> Lisa Winter	<b>Office Location:</b> Whitesboro HS Room 211	<b>Phone:</b> 903-564-4200
<b>Email:</b> winterli@grayson.edu	<b>Office Hours:</b> TBD Or by appointment	

Your instructor may be reached through the Canvas Inbox, email, or phone. However, the easiest way to contact your instructor will be through the Inbox link in Canvas. You should receive a reply within 24 – 48 hours. Please resend your message should you not receive a reply within that timeframe. If you choose to contact me through [winterli@grayson.edu](mailto:winterli@grayson.edu), please tell me your name and the class you are enrolled in the subject line of your email message. Please know that I will only respond to message sent via **Canvas** or your **Viking email** account.

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<b>Course Title:</b> Statistics	<b>Course Number:</b> MATH - 1342
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### Course Description:

Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

### Textbook and Required Material:

Elementary Statistics, Navidi and Monk, 3<sup>rd</sup> edition, McGraw-Hill Education Publishing, 2018.

ISBN-13: 978-1260573596 (This includes the textbook and the online access code.)

ISBN-13: 978-1260573657 (This includes the standalone online access code, complete with an e-version of the textbook.)

The ACCESS CODE is REQUIRED, whether as a standalone option or bundled with the textbook.

Access to Microsoft Excel and Word (2016 version or newer) will be required for this class. It is available on campus in the Math Hub, the library, or the computer lab (CIS 106) on the main campus (you will need to check the hours for each location).

### Online learners need basic technical skills to succeed.

#### Applications/tools you'll need:

- Access to a computer or laptop (equipped with a webcam and microphone is preferred)
- Grayson email address
- Internet access (high-speed internet connections are best for accessing streamed lecture videos)
  - If access to high-speed internet is a barrier, alternatives to view video content include: viewing in low definition setting, downloading video file to computer for later viewing, or reading lecture transcripts
- Access to word processing software such as Microsoft's Word
- Access to Excel
- Access to PowerPoint is preferred, contact instructor to see if this is needed
- Ability to convert a document to a PDF file format
- Access and ability to navigate Canvas

#### Skills you'll need:

- Ability to use a web browser to navigate the Internet
- Ability to check and disable popup blockers
- Ability to download and upload documents
- Ability to post discussions in Canvas
- Ability to attend Canvas Conferences at scheduled times

#### Time Management:

Take charge of your learning from the beginning of the course; allow no time for procrastination to set in. It is recommended that you:

- Log on to your course at least three or four times per week to stay on top of announcements, assignment due dates, and discussion forums
- Read the syllabus on the first day of the course; print off a hard copy or keep a digital copy on your mobile device to refer to throughout the course
- Record all dates for assignments, exams for the entire course in your calendar and add reminders

**Prerequisite(s):** Basic algebra skills are needed for this course. Students who have successfully completed Math 0420 should have the necessary algebra skills.

**Corequisite(s):** NONE

**Credit Hours:** 3      **Lecture Hours:** 3      **Lab Hours:** 1

The lab hour is in class each week for productive struggle. It is embedded throughout the class time.

**Methods of Instruction:** Lecture/examples of problems, homework Q&A, videos (when applicable), online materials.

This class will be taught face-to-face using social distancing.

Students will be required to follow protocols set forth by Grayson College when attending class or appointments on campus.

**Suggested Course Materials:**

You must have a scientific calculator for this course. Graphing calculators are **NOT** allowed. I recommend the TI-30X IIS. You will **NOT** be allowed to use your cell phone or any other electronic device that can be used for any purpose other than as a calculator.

**Student Learning Outcomes:** *(Upon completion of this course, students should be able to do the following.)*

1. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
2. Recognize, examine and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.
5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence intervals.
7. Solve linear regression and correlation problems.
8. Perform hypothesis testing using statistical methods.

**Method of Evaluation:** *(Grade will be determined by averaging the individual components using the scale shown below.)*

<b>Quizzes</b>	10%
(Online Connect Math Assignments)	
<b>Project</b>	10%
(Group Projects)	
<b>Homework</b>	10%
(Online Connect Math Assignments)	
<b>Exams</b>	70%
(pencil and paper in class)	

**Grading Scale:** A = 89.5 – 100    B = 79.5 – 89.4    C = 69.5 – 79.4    D = 59.5 – 69.4    F = 0 – 59.4

**Grade Posting:** Grades for each assignment will be posted in Canvas under the course Grades tab. These grades will be posted no later than 7 days after the posted due date. Because your quizzes and online assignments are auto-graded in ConnectMath, you will receive immediate feedback on those assessments.

**Grading Rubric for Math Problems:**

The following table illustrates the way in which points will be deducted for errors made on assignments and exams.

Percentage of total point value to be deducted	Description of error(s)
0% - 30%	Minor Error <ul style="list-style-type: none"> <li>• Correct mathematical notation was not used.</li> <li>• The sequence of steps was not written in a logical and organized manner.</li> <li>• Variables were not identified.</li> <li>• Units were not designated.</li> <li>• The method of solution is correct, but there is a sign, arithmetic, copying, or similar minor error in the work.</li> <li>• Correct grammar was not used when a verbal response was required.</li> </ul>
30% - 70%	Significant Error <ul style="list-style-type: none"> <li>• The method could have worked; a correct start was made, but a substantial error or errors led to the wrong conclusion.</li> <li>• Poor notation, organization, or handwriting made it difficult to follow and understand for the reader.</li> <li>• A correct method was started, but not completed.</li> </ul>
70% - 100%	Major Error <ul style="list-style-type: none"> <li>• Instructions were not followed.</li> <li>• Method of solution was incorrect.</li> <li>• Problem was left blank.</li> </ul>

### ALEKS Component

All students taking MATH 1342 are required to complete the ALEKS online math Knowledge Check. The ALEKS Knowledge Check will identify prerequisite topics students still need to master prior to covering certain material in the course.

Five ALEKS checks will be available for students to practice problems related to the gaps identified in the Knowledge Check, but these assignments are not turned in for a grade.

### Project Description and Policy:

There will be approximately four (4) projects in this course that tie together as one larger project. Microsoft Excel and Word 2016 will be used for part of the project. These projects are designed to show students the role statistics and technology can play in research and calculation of large data sets for probability and statistics.

Students will work in groups of 3-4 students. When projects are submitted in Canvas, each individual student must submit the Excel project. The lowest score will be dropped.

### Homework Policy:

This course requires the completion of **twenty (20)** homework assignments designed to enhance your understanding of the material presented in class.

Homework assignments will be completed online via the Connect Math online homework platform. You must register on the Connect Math web page using the access code that should have been packaged with your textbook. You will also need a Course ID. Please see your Canvas shell or your instructor to retrieve the Course ID. Each homework assignment you complete with a grade of 80% or better will be recorded as a 100% in the Canvas gradebook. A grade below 80% will be transferred in as is. While there are twenty-four (24) total homework assignments available in Connect Math, only the top twenty (20) will be counted towards your homework average. **Please be aware that technical problems do sometimes occur. If Connect Math's website is unavailable, this does not excuse you from completing the assignment by the deadline.** Neither your instructor nor Grayson College may be held responsible for technical difficulties you may experience during the course. Complete your assignments in a timely manner to avoid last minute complications.

You should also complete the pencil and paper homework for each section. Textbook homework problems are posted in Canvas for additional practice, but are **NOT** required to turn in for a grade. Since the major exams will be traditional pencil and paper exams, it is highly advisable that you do not neglect this learning method.

Math is a cumulative subject that requires frequent practice in order to develop your skills. If one topic is confusing, then the next topic is likely to be more confusing. The general rule of thumb is to spend two hours studying for every hour spent

in class. This translates to six hours per week. Your proficiency with math and your success in this class will depend on active practice.

**Quiz Policy:**

All online quizzes must be completed using Connect Math, an interactive online teaching and learning tool. Approximately nine (9) Connect Math quizzes will be given throughout the semester as chapter check-ups. Grades will be transferred to Canvas as the grade earned. There will be no make-ups for missed quizzes. Any missed assignments will receive a grade of zero. The lowest score will be dropped.

**Please be aware that technical problems do sometimes occur. If Connect Math's website is unavailable, this does not excuse you from completing the assignment by the deadline.** Neither your instructor nor Grayson College may be held responsible for technical difficulties you may experience during the course. Complete your assignments in a timely manner to avoid last minute complications.

**Exam Policy:**

You will have four (4) unit exams and one (1) comprehensive final exam; the final exam will be recorded twice in the Canvas gradebook. At the end of the semester, the **lowest** exam grade will be dropped from the Canvas gradebook automatically. This policy ensures that the comprehensive final exam is a component of your final course grade.

Please see your professor in the case of technical issues or interruption of face-to-face instruction due to unforeseen circumstances.

You will **NOT** be allowed to use graphing calculators on exams. You will also **NOT** be allowed to use your cell phone or any other electronic device that can be used for any purpose other than as a calculator on a test.

**Late Work Policy:**

All online work is due by the listed due dates in ALEKS, ConnectMath and Canvas at 11:59PM.

**Make-up Policy:**

A student may request a make-up exam or quiz in the case of an EXTREME EMERGENCY. The instructor decides what constitutes an EXTREME EMERGENCY. Make-up exams must be completed before the next class meeting.

If you are absent the day of an exam, the missing grade will be the "lowest" exam grade and will be replaced by the Final Exam grade.

Notice to the instructor must be given as soon as possible in order to take an exam early.

**Attendance Policy:**

Academic success is closely associated with regular class attendance and course participation. All successful students, whether on campus or online, are expected to be highly self-motivated. All students are required to participate in courses regularly and are obliged to participate in class activities and complete and submit assignments following their faculty's instructions. Students taking courses during compressed semester timeframes such as mini-mester, summer sessions, and 8-week courses should plan to spend significantly more time per week on the course. Responsibility for work missed because of illness or school business is placed upon the student. Instructors are required to include in their syllabi the attendance policy for the courses(s) they teach. The college considers absences equal to or greater than 15% of the course's requirements to be excessive.

In order for students to be counted as having attended a class before the census date, the following guidelines are to be used:

- Physical attendance in class with an opportunity for instructor and student interaction
- Submission of an academic assignment
- Completion of an exam, interactive tutorial, or computer-assisted instruction
- Attendance at a study group assigned by the faculty
- Participation in an online discussion in the class
- Contact with a faculty member to ask a question

Attendance in this course will be taken for each class period. In the event face-to-face instruction is interrupted by unforeseen circumstances, instructors will take attendance weekly based on the guidelines mentioned above.

**Monitoring Online Activities:**

Student activity will be monitored several times per week using Canvas activity reports and ConnectMath tracker.

**Professionalism, Etiquette, and Netiquette:**

Professionalism is a set of behavioral skills that are directly transferable to the workplace and that gives a graduate distinctive value. Professional skills enable a more seamless transition from college life to professional life, and include:

- Respect for all individuals, groups, and people.
- Ability to handle stressful situations with professionalism.
- Punctuality and organizational skills.
- Ability to network and establish new relationships.
- Ability to contribute positively to a diverse team.

When communicating with your instructor or classmates online (e.g. through email, discussion forums, or other applications), be as civil and professional as you would in face-to-face interactions:

- Be respectful to those with whom you may disagree and avoid any language that may be construed as angry, hateful, or inappropriate. Please understand that the use of all capital letters in a message indicates aggressive language.
- Respect the privacy of anything that is communicated to you in confidence (i.e. never forward private emails to others without the sender's consent or understanding).
- Always review your messages for clarity and tone before sending an email or posting in a discussion forum.

**Resource Material:**

Any student enrolled in this class has access to the Math Hub located in the Student Success Center, room SSC-200, and can be reached at (903) 463 – 8663. The lab is staffed with faculty and tutors; in addition, it offers free tutorial help, calculators, and a computer area to watch math videos or work on your online math homework. For more information on the Math Hub (including an orientation video, a video showing how to get to the Math Hub on the Denison campus and hours of operation) go to the following web site: <https://www.grayson.edu/current-students/Academic%20Resources/student-labs/math-hub.html>

Due to COVID-19 precautions, the Math Hub will restrict face-to-face tutoring to occur by appointment only. Virtual tutoring will be available through the Math Hub and UPSWING. Please see the announcement in Canvas for instructions on how to access these resources.

**Disabilities Services:**

The College is committed to meeting the special needs of disabled students and coordinates with agencies such as Texas Department of Assistive and Rehabilitative Services and Texas Department of Human Resources to provide appropriate accommodations.

Students with documented disabilities should contact the Disabilities Services Coordinator in the Success Center preferably before classes start or as early in the semester as possible. Once appropriate documentation for the disability is received, the Disability Services Coordinator will coordinate delivery of approved accommodations with students and their instructors. The College makes the following services available to students with documented disabilities: tutoring, note taking, sign language interpreting, special testing conditions, taped textbooks, scribes, special/modified equipment, and other appropriate services.

**Drop/Withdrawal Regulation:**

Under section 51.907 of the Texas Education Code, "an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education." Please consult your instructor before you drop a course, and check the current Grayson Registration Guide for the last official day to drop/withdraw from a course.

**Drop/Withdrawal Procedure:**

To drop this course, you will need to do the following:

1. Attain a Drop/Add form from your instructor or the Admission's Office.
2. Turn in the completed Drop/Add form to the Admission's Office on or prior to the drop date.
3. Make sure your course withdrawal satisfies the college withdrawal policy.
4. You may receive an F if you do not finish this class and do not drop prior to the drop deadline.

**Religious Holy Days:**

Grayson College will allow students who are absent from class for the observance of a religious holiday to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. The form for requesting absence for holy days may be obtained from the Vice President for Student Services. "Religious holy day" denotes a holy day observed by a religion whose places of worship are exempt from property taxation under section 11:20, Tax Code. A student who is excused under this section may not be penalized for the absence, but the instructor may appropriately respond if the student fails to satisfactorily complete the assignment or examination.

**Evaluation of Instruction:**

Grayson College seeks to improve the learning experience of all students. To assist in evaluating courses, students will be requested to complete an online evaluation-of-instruction near the end of the semester.

**Student Responsibility**

You have already made the decision to go to college; now the follow-up decisions on whether to commit to doing the work could very well determine whether you end up working at a good paying job in a field you enjoy or working at minimum wage for the rest of your life. Education involves a partnership that requires both students and instructors to do their parts. By entering into this partnership, you have a responsibility to show up for class, do the assignments and reading, be engaged and pay attention in class, follow directions, and put your best effort into it. You will get out of your experience here exactly what you put into it – nothing more and nothing less.

**Student Code of Conduct**

Students are expected and required to maintain classroom decorum that includes respect for other students and the instructor. Any student not following this rule will be warned in private and if there is no change in the behavior, the student will be asked to leave the class or receive disciplinary actions according to the Student Handbook - <http://grayson.edu/current-students/catalogs-and-handbooks/Student%20Handbook%202016.pdf>

Students are expected to have prompt and regular attendance, and an attitude that seeks to take full advantage of the educational opportunity.

Any behavior that disrupts the learning environment will not be tolerated. Disruptive behavior includes but is not limited to talking while another student or the professor is speaking. Cell phones should be turned off during class, this includes texting. If you truly have an emergency situation, put the phone in silent or vibrate mode and leave the room to answer if you must.

**Academic Integrity Policy**

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the college's policy on plagiarism (see GC Student Handbook for details). Grayson College subscribes to turnitin.com, which allows faculty to search the web and identify plagiarized material.

Academic honesty will be ensured by the fact that 70% of your course grade will be earned while in a proctored and secured environment. If caught cheating (looking at another student's test, using notes within the test, or using an unauthorized software program) while taking a test in a proctored testing center you will be disciplined as follows:

- 1st offense will result in a grade of 0 for the exam in which the offense was committed along with a written letter to be added to his/her academic file.
- 2nd offense will result in a grade of F for the course along with a written letter to be added to his/her academic file and given to the dean of academics for further review.

**Plagiarism Policy**

Plagiarism is a form of scholastic dishonesty involving the theft of or fraudulent representation of someone else's ideas or words as the student's original work. Plagiarism can be intentional/deliberate or unintentional/accidental.

Unintentional/Accidental plagiarism may include *minor* instances where an attempt to acknowledge the source exists but is incorrect or insufficient. Deliberate/Intentional plagiarism violates a student's academic integrity and exists in the following forms:

- Turning in someone else's work as the student's own (such as buying a paper and submitting it, exchanging papers or collaborating on a paper with someone else without permission, or paying someone else to write or translate a paper),
- Recycling in whole or in part previously submitted or published work or concurrently submitting the same written work where the expectation for current original work exists, including agreeing to write or sell one's own work to someone else,
- Quoting or copy/pasting phrases of three words or more from someone else without citation,
- Paraphrasing ideas without citation or paraphrasing incompletely, with or without correct citation, where the material too closely matches the wording or structure of the original,
- Submitting an assignment with a majority of quoted or paraphrased material from other sources, even if correctly cited, when original work from the student is expected,
- Copying images or media and inserting them into a presentation or video without citation,
- Using copyrighted soundtracks or video and inserting them into a presentation or video without citation,
- Giving incorrect or nonexistent source information or inventing source information,
- Performing a copyrighted piece of music in a public setting without permission,
- Composing music based heavily on someone else's musical composition.

### **GC Title IX Policy**

GC policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, nation origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status.

Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on Title IX, please contact:

- ❖ Dr. Molly M. Harris, Title IX Coordinator (903) 463-8714
- ❖ Ms. Logan Maxwell, Title IX Deputy Coordinator – South Campus (903) 415-2646
- ❖ Mr. Mike McBrayer, Title IX Deputy Coordinator – Main Campus (903) 463-8753
- ❖ Website: <http://www.grayson.edu/campus-life/campus-police/title-ix-policies.html>
- ❖ GC Policy Department: (903) 463-8777 – Main Campus (903) 415-2501 – South Campus
- ❖ GC Counseling Center: (903) 463-8730
- ❖ For Any On-campus Emergencies: 911

Grayson College campus-wide student policies may be found on our Current Student Page on our website: <http://grayson.edu/current-students/index.html>

### **GC ALERT & EMERGENCY MANAGEMENT**

Current students of Grayson College, Faculty, Staff, and the general public can register to receive voice and email messages via GC Alert, the college's emergency notification system. This web-based service sends high-priority messages during urgent situations. Manage your contact profile to the service through GC Alert. You can update your contact information for receiving alerts, and you can add, delete, or update your devices. For more information, please visit the website at <http://grayson.edu/campus-life/campus-police/emergency-management.html>

**Grayson County College is not responsible for illness/injury that occurs during the normal course of classroom/lab/clinical experiences.**

**These descriptions and timelines are subject to change at the discretion of the Professor.**

Grayson College campus-wide student policies may be found on our Current Student Page on our website: <http://grayson.edu/current-students/index.html>

In case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes, student must log onto their Canvas accounts for directions on where or how to continue their coursework.

## Course Calendar for MATH – 1342 (Subject to Change)

<b>Week 1</b>	ALEKS Knowledge Check Chapter 1: Basic Ideas & Terminology (Sampling, Types of Data, Design of Experiments, Bias)
<b>Week 2</b>	Section 2.1: Graphical summaries for qualitative data Section 2.2: Frequency distributions and their graphs Section 2.3: More graphs for quantitative data Section 2.4: Graphs that can be misleading
<b>Week 3</b>	Section 3.1: Measures of Center
<b>Week 4</b>	Section 3.2: Measures of Spread Section 3.3: Measures of Position Project #1: Data Collection
<b>Week 5</b>	Exam 1 (Chapters 2 & 3)
<b>Week 6</b>	Section 5.1: Basic Concepts of Probability Section 5.2: The Addition Rule and Rule of Complements Section 5.3: Conditional Probability and the Multiplication Rule Project #2: Data Organization
<b>Week 7</b>	Section 5.4: Counting Section 6.1: Random Variables Project #3: Numerical Summaries
<b>Week 8</b>	Section 6.2: The Binomial Distribution
<b>Week 9</b>	Exam 2 (Chapters 5 & 6) Section 7.1: The Standard Normal Curve
<b>Week 10</b>	Section 7.2: Applications of the Normal Distribution Project #4: Probabilities Section 7.3: Sampling Distribution Section 7.4: The Central Limit Theorem for Proportions
<b>Week 11</b>	Section 8.1: An Intro to Confidence Intervals with Sigma Known Section 8.2: Confidence Intervals with Sigma Unknown
<b>Week 12</b>	Exam 3 (Chapters 7 & 8) Section 9.1: Basic Principles of Hypothesis Testing Section 9.2: Hypothesis Testing with Sigma Known
<b>Week 13</b>	Section 9.3: Hypothesis Testing with Sigma Unknown Section 4.1: Correlation
<b>Week 14</b>	Section 4.2: The Least-Squares Regression Line
<b>Week 15</b>	Exam 4 (Chapters 9 & 4)
<b>Week 16</b>	<b>Comprehensive Final Exam</b>