STAT 250: Introductory Statistics I  
**Section:** 010  
**Credit Hours:** 3.0  

**Spring 2016**

**Class Meeting Place:** George Mason University Loudoun Campus, Signal Hill 211  
**Class Meeting Time:** Tuesdays 4:30 p.m. – 7:10 p.m.

**Professor:** Taylor H. Lewis  
**Office Hours:** By appointment, generally one hour before/after class  
**Email:** tlewis18@gmu.edu  
**Telephone:** 703-517-3563

**Quizzes and Exams:** All quizzes and exams will be given in class. They will be multiple choice and taken using Scantron forms. It is the student’s responsibility to bring Scantron forms to class on the day of a quiz or exam.

**Blackboard Login Instructions:** This course uses Blackboard found at mymason.gmu.edu. Your Mason email user name is also your ID (e.g. the ID for jdoe@masonlive.gmu.edu would be jdoe). Your Mason email password is also your Blackboard password. You must first establish a Mason email account before you can access Blackboard. Please go to the URL above for more information about Blackboard.

**Course Description**
This course is designed to be an elementary introduction to statistics. Topics include descriptive statistics, probability, and estimation and hypothesis testing for means and proportions. Statistical software used for assignments. The course fulfills general education requirement in quantitative reasoning.

**Course Goals**

1. To expose the student to the ideas and concepts of statistics and probability and the statistical models used for decision support in different areas of our life,
2. To give the student mastery of the concepts and tools of data representation, probability models, and statistical inference by solving problems,
3. To encourage the student to learn the methodologies and techniques of statistics to solve typical problems,
4. To provide a sound basis in statistics for the student’s future academic and professional careers.
Learning Objectives

After completing this course, the student should be able to

- Identify a situation and recognize the type of problem and/or the kind of analysis required,
- Formulate a statistical problem quantitatively,
- Choose the appropriate probabilistic models and statistical techniques to solve a problem,
- Explain and interpret the model results and obtain the required solution to problems utilizing a statistical software package,
- To plan and organize the communication and presentation of statistical results and inferences.

General Education Program

This course meets the Quantitative Reasoning requirement, one of the Foundation requirements of the University General Education program. The goal of the Foundation requirement is to help ensure that students develop the ability to use and critically evaluate numerical information, and to create logical arguments using quantitative reasoning. For more information on General Education, please see the University Catalog, pp. 69-71, and the Provost’s Office General Education website, http://www.gmu.edu/departments/provost/gened/index.html

Technology Requirements

**Hardware:** You will need access to a Windows or Macintosh computer with at least 2 GB of RAM and to a fast and reliable broadband internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to hear recorded content and a headset with a microphone is recommended for the best experience. For the amount of Hard Disk Space required to take a distance education course consider and allow for the storage amount needed to install any additional software and space to store work that you will do for the course. If you are considering the purchase of a new computer, please go to http://compstore.gmu.edu/pdfs/TechGuide.pdf to see recommendations.

**Software:** You will need a browser and operating system that are listed compatible or certified with the Blackboard version available on the myMason Portal. See supported browsers and operating systems. Log in to myMason to access your registered courses. Online courses typically use Acrobat Reader, Flash, Java, and Windows Media Player, QuickTime and/or Real Media Player. Your computer should be capable of running current versions of those applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free at http://antivirus.gmu.edu. Students owning Macs or Linux should be aware that some courses may use software that only runs on Windows. You can set up a Mac computer with Boot Camp or virtualization software so Windows will also run on it. Watch http://support.apple.com/kb/VI54?viewlocale=en_US about using Windows on a Mac. Computers running Linux can also be configured with virtualization software or configured to dual boot with Windows. Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

Technology and Textbook
You are required to obtain an Access Code to MyStatLab. MyStatLab is a website (linked to Blackboard) where you will find online homework assignments, your e-book, and many additional resources. Please access MyStatLab through Blackboard only. To obtain access to MyStatLab follow the steps listed below:

- Access our Blackboard course site (making sure you are in the correct section: STAT 250-xxx).
- On the left, find the MyStatLab link, click the link and then click the MyStatLab Course Home link in the middle of the screen.
- Accept the End-User License Agreement and Privacy Policy.
- If you do not already have a Pearson account, create a new Pearson username/password (Note: you cannot connect your Blackboard username/password to more than one Pearson username/password). If you have ever used Pearson before and forgot your username and/or password, use the “forgot username/password” link to retrieve them.
- On the next page, there is a choice. Choose Use a Credit Card or Paypal to purchase instant access online if you have not already purchased the access code (recommended). If you purchased an access code for the bookstore, click Access Code to enter this code to gain access.
- After your payment goes through, you are registered. You can close the “congratulations” tab and return to our Blackboard course. This process only needs to be completed once. The next time you click the MyStatLab link, your MyStatLab course will immediately open in a new tab in your browser. You will have access to the course e-textbook which is listed below.


If you are interested in a physical copy of the textbook, there are various options through the bookstore and MyStatLab.

In addition, on the MyStatLab home page under Announcements, please run a browser check to make sure your browser is current and updated enough to view the content in the course.

Software: StatCrunch is a powerful web-based statistical software program designed for students. It allows users to collect data, perform complex analyses, and generate compelling results. This program is built in a vibrant online community offering numerous data sets to work with. We will use this program during most class lectures and it is expected that you use this program to complete our Data Analysis Assignments (see the Assignments section below for more information). StatCrunch is free to all students with paid access to MyStatLab. In addition, StatCrunch can be accessed on all computers (Apple and PC) and devices (smartphones, tablets, etc.) so be ready to use it along with me in class.

Calculator: A calculator will be needed (one that can do basic arithmetic operations and can take square roots). Cell phones cannot be used as calculators during exams.

**You are required to master a variety of technologies as a part of this course:**

- First, you must be able to navigate through Blackboard because all course information is found on this site.
- As mentioned above, you must obtain a MyStatLab access code so that you can gain access to your MyStatLab Course through blackboard. You must be able to maneuver in the MyStatLab environment since your online homework assignments will be completed on this website.
You must demonstrate competence in the use of the StatCrunch statistical software program. This includes but is not limited to understanding how to create “professional” style graphics and how to insert those graphics into your Data Analysis Assignments.

You must demonstrate competence in the use of a word processor such as Microsoft Word. In particular, you must be able to import graphics from StatCrunch, create a professional assignment, and upload that assignment to Blackboard.

Blackboard and Email

Blackboard
This course uses Blackboard found at mymason.gmu.edu. You should make sure you have access to the folder for STAT 250 of your particular section because all course documents, assignments, and other important information will be distributed through this web page. Your Mason email user name is also your ID (e.g. the ID for jdoe@masonlive.gmu.edu would be jdoe). Your Mason email password is also your Blackboard password. You must first establish a Mason email account before you can access Blackboard. Please go to the URL above for more information about Blackboard.

MasonLive/Email (GMU Email)
Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account. See https://masonlivelogin.gmu.edu

For administrative or personal questions or issues, please email your instructor. Please type STAT 250 and your section number in the Subject area of the email and include your full name in your email. Thanks.

Students are expected to follow courteous Internet etiquette at all times; see http://www.albion.com/netiquette/corerules.html for more information regarding these expectations.

Patriot Pass: Once you sign up for your Patriot Pass, your passwords will be synchronized, and you will use your Patriot Pass username and password to log in to the following systems: Blackboard, University Libraries, MasonLive, myMason, Patriot Web, Virtual Computing Lab, and WEMS. See https://password.gmu.edu/index.jsp].

Important Information about How We Present Information to You

We will present information to you in several different ways. The lecture slides are available on Blackboard. Also on Blackboard there will be audio lectures. Some information might be given in the answers to your homework problems only. The book can be used to support concepts taught in class.

Regardless of the manner by which we convey the information to you, you are responsible for its applications to the assignments, quizzes, and tests.
Assignments

You will have Online Homework Assignments and Data Analysis Assignments. Please see the Tentative Schedule posted on blackboard and the calendar on MyStatLab to know when assignments are due.

**Online Homework Assignments** will be available and must be completed on the MyStatLab website. Your answers are submitted electronically. The MyStatLab homework consists of homework assignments, online quizzes, and review homework assignments. Note that you are allowed unlimited number of tries of the homework and chapter reviews, but only one try in the quizzes. The quizzes are timed and need to be completed in 90 minutes. You will have partial credit for problems with more than one part.

*Online Homework Assignments late policy:* There are no late Online Homework Assignments accepted.

**Data Analysis Assignments:** For Data Analysis Assignments, you are required to type all homework solutions. That is, you must integrate in Microsoft Word the StatCrunch results (including any graphs) used to solve the problem and all the typed answers to the questions. You must upload this Word file electronically through Blackboard.

*Data Analysis Assignments late policy:* There will be a 5 point deduction each day your assignment is late (each day, not class period). After a week (7 days), a zero will be given.

**You have at most a week after an assignment is returned to question a grade. If you do not notify me within that time, then the grade posted stands.**

Quizzes and Exams

**Quizzes:** There will be three quizzes. Quizzes are approximately 15 - 20 minutes in duration. The goal of the quizzes is to familiarize you with exam-type questions.

**Exams:** There will be a two tests and a final exam. You should have a calculator (a cell phone or any other device with a camera or the Internet is not acceptable during exams and the final), a hand-written formula sheet and appropriate statistical tables (found on Blackboard). You are not allowed to use other materials, including scrap paper.

Make-up tests are given only in the most extreme cases (e.g. religious reasons, documented sickness, university related travel, etc.). Please contact me at least one week before the test to schedule a make-up test. If you miss an exam unexcused, you will receive a zero on the test. Rules about rescheduling the final are found on the last page of this syllabus.

**You have at most a week after a Quiz or Exam is returned to question a grade. If you do not notify me within that time, then the grade posted stands.**

**ALL TESTS AND QUIZZES ARE CLOSED BOOK.**
Course Policies

Extra Credit:
There are no extra credit assignments in this course.

The GMU Honor Code:

Academic Integrity: Students must be responsible for their own work, and students and faculty must take on the responsibility of dealing explicitly with violations. The tenet must be a foundation of our university culture. [See http://academicintegrity.gmu.edu/distance].

Honor Code: Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code/].

You may work in groups on the homework (unless otherwise indicated) and, in fact, you are encouraged to do so. Please note that working together does not mean handing in photocopies of someone else’s work. Also, working together does not mean handing in a single “group” copy of the assignment with multiple names. Each individual must submit his/her own work to receive credit. I suggest working on your own first and meeting with follow students after you have completed your work.

You are required to work alone on tests and quizzes. No communication (except with your professor) is allowed during quizzes or tests. Do not communicate with students who have not taken a quiz or test after you have taken it. Using the work of another student, whether that student is taking the course this semester or has taken it during some previous semester, is a violation of the Honor Code.

All violations of the rules of this class and the GMU Honor code will be referred to The Honor Committee. I take the Honor Code seriously and so should you.

Past Sanctions that have been given for an Honor Code Violation on a Data Analysis Assignment (for a student’s first offense) include zero for the assignment, 10% reduction in the student’s final grade, and Academic Integrity Seminar.

Stronger sanctions are given for a second offense. Even stronger sanctions are given for cheating on a test or exam. It will begin with an F in the course. Please do not cheat. At the end of the story, you are actually cheating yourself and those students working honestly.

Inclement Weather Policy
In case of closing due to inclement weather, we will follow the specific policy set forth by the Provost’s office, if there is one. In case the make-up process is left up to the instructors, we will schedule make-up session(s) on an ad hoc basis. This could be in the form of a face-to-face meeting, an on-line session, or a meeting through Blackboard Collaborate. The students will be responsible for the material covered in the make-up sessions.

University Calendar: Details regarding the current Academic Calendar. [See http://registrar.gmu.edu/calendars/index.html].

Students with Disabilities: Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See http://ods.gmu.edu].

Student Services
University Libraries: University Libraries provides resources for distance students. [See http://library.gmu.edu/distance and http://infoguides.gmu.edu/distance_students].

Writing Center: The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. [See http://writingcenter.gmu.edu]. You can now sign up for an Online Writing Lab (OWL) session just like you sign up for a face-to-face session in the Writing Center, which means YOU set the date and time of the appointment! Learn more about the Online Writing Lab (OWL).

Counseling and Psychological Services: The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See http://caps.gmu.edu].

Family Educational Rights and Privacy Act (FERPA): The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the "Buckley Amendment," is a federal law that gives protection to student educational records and provides students with certain rights. [See http://registrar.gmu.edu/privacy].

Grading

1. In-Class Quizzes (10%): If ALL three in-class quizzes are completed the lowest quiz grade will be dropped.
2. Test 1 (15%)
3. Test 2 (15%)
4. Cumulative Final Exam (20%): If both Test 1 and Test 2 are taken and the lower of the two scores is below the final exam score, the final exam score will replace the lower of the two test scores. So, for example, if your two test scores are 65 and 82, and your final exam score is 71, your two exam scores will be counted as 71 and 82.
5. Online Assignments (20%): An overall favorable grade adjustment will be made and disclosed during the semester.
6. Data Analysis Assignments (20%): If ALL five data analysis assignments are completed and the lowest assignment grade is 50 or above, the lowest assignment will be dropped.
Letter grades will then be assigned according to the following scale:

<table>
<thead>
<tr>
<th>Numeric Score</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 – 100</td>
<td>A+</td>
</tr>
<tr>
<td>93 – 97</td>
<td>A</td>
</tr>
<tr>
<td>90 – 92</td>
<td>A–</td>
</tr>
<tr>
<td>87 – 89</td>
<td>B+</td>
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<tr>
<td>83 – 86</td>
<td>B</td>
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<tr>
<td>80 – 82</td>
<td>B–</td>
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<td>77– 79</td>
<td>C+</td>
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<tr>
<td>71 – 76</td>
<td>C</td>
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<tr>
<td>67 – 70</td>
<td>C–</td>
</tr>
<tr>
<td>60 – 66</td>
<td>D</td>
</tr>
<tr>
<td>0 – 59</td>
<td>F</td>
</tr>
</tbody>
</table>

IMPORTANT NOTES:
1. In Blackboard, when you look at your grades, you will see a “SUM.” This sum is completely meaningless as is does not take various weights into consideration. Please ignore it.
2. A final grade can only be changed if there is a recording error or a computational error.
3. All grade disputes must be settles within a week of the test/quiz. Otherwise the given grade stays.

Final Exam

If you have a conflict or a reasonable reason not to take the exam at the appointed day, you must request a change of time and date. That is, you must get the Dean in the department that houses your degree to sign the form if in the Volgenau School.

Where to get form for Request for change of date for Final Exam:

http://volgenau.ite.gmu.edu/forms/final_examination_reschedule.pdf

Directions for students are available at:
http://volgenau.ite.gmu.edu/forms/reschedulefinalexaminstruct_072002.pdf
Final examinations must be rescheduled if:
1. More than one examination is scheduled at the same time on the same day.
2. More than two examinations are scheduled within 24 hours.
3. Illness on day of examination makes attendance at the scheduled time impossible. (In this case, documentation by a physician may be required by the instructor and/or Dean).

Rescheduling of final examinations for other reasons requires the following:
1. Exceptional circumstances beyond the control of the student.
2. Willingness of the course instructor to reschedule the examination.
3. Approval of the Assistant Dean or Dean of the department that houses your degree.