UNIVERSITY OF MARYLAND GLOBAL CAMPUS

Adelphi · Syllabus · Other

STAT 200 6377 Introduction to Statistics (2242)

STAT-200

Spring 2024 Section 6377 3 Credits 01/10/2024 to 03/05/2024

Faculty Contact

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Course Description

An introduction to statistics. The objective is to assess the validity of statistical conclusions; organize, summarize, interpret, and present data using graphical and tabular representations; and apply principles of inferential statistics. Focus is on selecting and applying appropriate statistical tests and determining reasonable inferences and predictions from a set of data. Topics include methods of sampling; percentiles; concepts of probability; probability distributions; normal, t-, and chi-square distributions; confidence intervals; hypothesis testing of one and two means; proportions; binomial experiments; sample size calculations; correlation; regression; and analysis of variance (ANOVA). Students may receive credit for only one of the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MATH 111, MGMT 316, PSYC 200, SOCY 201, STAT 100, STAT 200, STAT 225, or STAT 230.

Course Introduction

In this course, you will develop a basic understanding of descriptive and inferential statistics. STAT 200 provides the quantitative tools for decision-making and develops the ability to interpret statistical results in professional literature as well as the media.

This course is intended to accommodate every student who needs an introductory statistics course, regardless of the subject in which one plans to major.

Following is a general outline of specific topics you will encounter in this course:

- ○ Introduction to Statistical Thinking, Types of Data, and Collection of Sample Data
- ○ Methods of Summarizing and Graphing Data
- ○ Measures of Center and Variation

- Probability, Basic Counting Methods, and Conditional Probability
- Discrete Random Variables, the Binomial Distribution
- The Normal Distribution
- Confidence Interval Estimation
- Hypothesis Testing, including *z*-, *t*-, and χ^2 Tests
- Correlation and Regression
- Goodness of Fit
- One-Way Analysis of Variance (ANOVA)

Note: This course is identified as a prerequisite for another course at UMGC. Successful completion of this course is required to advance to the next course in a sequence. A grade of Withdrawal (W), Failure for non-attendance (FN), Failure (F) or Incomplete (I) will not meet a prerequisite requirement. You may be barred from enrolling in or may be removed from courses for which you do not have the necessary prerequisites. Keep track of your progress in this course. If you are uncertain about your standing, consult with your instructor. You should also work with an academic advisor to be sure you are aware of your options and are meeting all necessary program requirements when planning your schedule.

Course Outcomes

After completing this course, you should be able to:

- distinguish among sampling methods for the collection of data in order to assess the validity of statistical conclusions
- organize, summarize, interpret, and present data using graphical and tabular representations
- apply basic concepts of probability in order to assess the likelihood of an event
- select and apply the statistical test or tests that are most appropriate to analyze a data set
- determine reasonable inferences and predictions from a set of data to make appropriate decisions

Course Materials

Click to access your course materials information (http://webapps.umgc.edu/UgcmBook/BPage.cfm?C=STAT%20200&S=6377&Sem=2242)

Class Guidelines

Faculty Information

To locate information within your LEO classroom, log in and review your faculty member's information, which is found in the Start Here section of your classroom after clicking on the **Content** link.

Contacting your Faculty Member

You can use the Pager feature within the classroom to send a message to your faculty member. Click the Classroom Walkthrough Videos link below, and then click **The Pager** link, to view a how-to video on how to use the Pager function within the classroom:

Classroom Walkthrough Videos Link (https://www.umgc.edu/current-students/learning-resources/leo)

Within the **Content** section of your classroom, view the **Start Here** section or **Additional Course Information** section within the **Syllabus** to learn more about contacting your faculty member.

✔ Grading Information

You are expected to submit *your own work* for all discussions, assignments and the final exam. Submitted discussions, assignments and final exam that are highly similar in content and presentation will be considered suspect and will be questioned. No credit will be given for plagiarism. Please refer to UMGC Policy on Academic Dishonesty and Plagiarism (Policy 150.25 - Academic Dishonesty and Plagiarism - UMGC). Please visit UMGC's Virtual Academic Integrity Laboratory (VAIL - Home - UMGC) for further information.

Guideline for Receiving Tutoring Service

> Students are eligible for free tutoring through UMGC. To access the tutoring link, click on Academic Support -> Tutoring. We fully appreciate that many of our students may seek tutoring services to supplement our instructional program. However, it should be understood that tutors may not be used to complete any portion of assignments, projects, quizzes, exams and final exam on behalf of our students. Students are expected to submit their own work. Students who are suspected of submitting the work of their tutors will be reported to the Dean's Office for potential investigation in accordance to UMGC's academic policy on Academic Dishonesty and Plagiarism (Policy 150.25 - Academic Dishonesty and Plagiarism - UMGC).
>
> If you are to receive tutoring services, please inform your tutor of this expectation and be sure to clarify your tutor's role and responsibility to your academic endeavors at UMGC.

You are encouraged to harness commonly available technologies (one of six cross-curricular initiatives: Competence in Information Technology) to perform your work. For example, you should be able to write out mathematical equations in MS WORD files using Microsoft Equation 3.0 (which comes with MS WORD) or equivalent or more advanced equation-writer such as MathType. You should also be able to plot line graphs and related statistical diagrams using common graphic packages such as EXCEL, MATLAB, StatCrunch, or free web resources.

Grading Criteria

The course grade will be determined as follows:

Component	Total points
LEO Discussion Participation (8 weeks at 30 points each)	240
Weekly Homework Problems (7 weeks: week 1 at 66 points, weeks 2-7 at 69 points each)	480
Three Checkpoint Quizzes in MyStatLab 1. Checkpoint Quiz #1 (60 points) 2. Checkpoint Quiz #2 (60 points) 3. Checkpoint Quiz #3 (60 points)	180
Final Exam	100
TOTAL	1,000 points

According to UMGC's grading policy, the following marks are used:

	Undergraduate
A	900 - 1,000 points
B	800 - 899 points
C	700 - 799 points
D	600 - 699 points
F	599 points or below

FN	Failure-Non attendance
G	Grade Pending
P	Passing
S	Satisfactory
U	Unsatisfactory
I	Incomplete
AU	Audit
W	Withdrew

Scope of Content

The content in this course is cumulative and builds from one week to the next. As such, the content does become more challenging as the course progresses. You may find that you need to spend more time on the readings and assignments in some weeks, so you are encouraged to plan your time accordingly.

Grading Details

The work you are required to do in this course consists of:

- Weekly reading assignments
- Weekly LEO discussion participation
- Weekly homework problems in MyStatLab
- 3 checkpoint quizzes in MyStatLab
- Final exam in MyStatLab

These course components are described in more detail below.

Weekly Reading Assignments

Even though there is no numerical score associated with the weekly reading assignments, it should be understood that how well you do in the course depends heavily on how conscientious you are with the reading assignments. Each week there will be reading assigned from the eBook Elementary Statistics by Triola (14th edition). The eBook is found in MyStatLab. You should also read the Modules (Course Resources) presented in the Course Content area of LEO. The details of which chapter(s) assigned for which week can be found in the Course Schedule in this syllabus.

When doing the reading for this course you need to really *SLOW DOWN !*

Reading statistics is not like reading anything else! You need to look very carefully at the numbers and *formulæ* and spend some time making sure you understand them and that they make sense. Reading statistics (or any mathematical text) can take three to four times longer, per page, than reading a non-mathematical text.

Participation -- World Wide Web Protocols

By registering for a Web-based course, you have made a commitment to participate in your course conferences as well as other online activities. To contact your instructor, use the conferencing software or email links provided, which allow you to communicate with the instructor and your classmates in a virtual classroom 24 hours a day, 7 days a week. Please plan to participate regularly. You will note in the grading policy that your online participation counts towards your final grade.

You are expected to adhere to the general rules of online etiquette.

Weekly Online LEO Discussion Participation

Active engagement is an important ingredient in student success in online classes. LEO discussion assignments will be used to collaboratively discuss concepts and their applications in the real world. A goal of the discussions is to encourage you to think about how statistics can be applied in your own life.

Each student must post an initial response to the week's discussion topic by Saturday at 11:59 PM Eastern time of the week in which the topic is assigned. You are encouraged to engage in a discussion with your peers about the week's topic (e.g., ask questions of your classmates, find similarities and differences in answers, etc.). You must make at least one substantive peer post by Tuesday night at 11:59 PM Eastern time. A rubric is linked in each week's discussion area.

The online discussions constitute 240 points toward the final course grade.

Weekly Homework Problems

During weeks 1-7 you will complete homework in MyStatLab (MSL). The homework assignments can be completed as many times as you like until you are satisfied with your score. While all homework assignments are officially due the last day of class, it is strongly recommended that you stay on track with the course schedule (located at the end of the syllabus) and complete each homework assignment during the assigned week.

Each week there are three homework assignments in MSL. 'Ready' assesses what foundational skills you personally need to reinforce. 'Set' tailors the review exercises you specifically need to work on to build that foundation. Once that is complete you can successfully complete the "Go" assignment which is the weekly

homework. Only the weekly homework ("Go") will be included in the gradebook.

The homework exercises are worth 480 points toward the final course grade.

Homework is a very important part of this course because the best way to learn statistics is to do statistics. You are encouraged to seek help from the instructor, fellow students, or tutors when you need it. There are also excellent "help" features in MSL, such as "help me solve" and "show an example".

Checkpoint Quizzes in MyStatLab

Over the course of the term, there will be three required checkpoint quizzes in MyStatLab. Checkpoint quiz #1 is assigned in week 3 and covers content from weeks 1-2. Checkpoint quiz #2 is assigned in week 5 and covers content from weeks 3-4. Checkpoint quiz #3 is assigned in week 7 and covers content from weeks 5-6. The quizzes are assigned **in addition to** the weekly "ready, set, go" homework assignments in MyStatLab.

The three checkpoint quizzes constitute 180 points toward the final course grade. You will be able to open the checkpoint quiz, work on it, save it, and return later to complete it. **You will be able to submit each checkpoint quiz twice.** The higher checkpoint quiz score will be recorded. You will have access to the "help me solve" and "show an example" resources during the checkpoint quizzes. Like the homework, quizzes are officially due the last day of class; however, it is strongly recommended that you stay on track with the course schedule (located at the end of the syllabus) and complete each quiz during the assigned week.

Final Exam

The final exam is an open book exam that covers content from weeks 1-7. The final exam will be posted in MyStatLab at 12:01 a.m. ET on the Wednesday of Academic Week 8, and it is due at 11:59 p.m. ET on the last day of Academic Week 8 (Tuesday). The exam will not show in your list of assignments in MyStatLab until it unlocks at 12:01 a.m. ET on Wednesday of week 8. The final exam will be locked right after midnight ET on Tuesday. You will be able to open the exam, work on it, save it, and return later during the 7-day exam period to complete it. **The final exam can be completed two times, and the higher score will be recorded in the gradebook.**

The final exam will consist of all computer-scored questions, and you will have access to the "help me solve" and "show an example" resources during the exam. Note that access to a tutor will be disabled for the final exam.

The final exam must be individually completed and represent your own personal work. Neither collaboration nor consultation with others is allowed.

The solutions for the final exam will not be posted.

The final exam will be given during the final exam week, and you are expected to take the exam as scheduled. In the event of illness or extraordinary circumstances, you must contact your faculty member and provide documentation to request an exception and approval to take a makeup exam. If the request is not approved, the exam grade will be recorded as a zero. The final exam is worth 100 points toward the final course grade.

The academic schedule in this Syllabus is referenced to Eastern Time Zone (local time at Adelphi, MD).

Important Grade Information

Grade of W

In accordance with UMGC Policy 170.71 - Grade of Incomplete and Withdrawal - UMGC, students may withdraw and receive a grade of *W* by following the procedures detailed at Withdrawals - UMGC. The grade of *W* appears on the permanent record unless the withdrawal is completed before a course begins. For purposes of academic retention, the grade of *W* is counted as attempted hours. It is not used in determining grade-point averages.

Grade of G

In accordance with UMGC Policy 170.71 - Grade of Incomplete and Withdrawal - UMGC, when an allegation of academic dishonesty and/or plagiarism is reported by the faculty under UMGC Policy 150.25 - Academic Dishonesty and Plagiarism - UMGC, a grade of *G*, grade pending, is administratively entered and will remain on a student's record until the process of Policy 150.25 - Academic Dishonesty and Plagiarism - UMGC is completed and the final grade for the course is assigned.

Grade of FN

In accordance with UMGC Policy 205.06 - Calculation Of Grade-Point Average (GPA) for Inclusion on Transcripts and Transcript Requests - UMGC, a grade of *FN* will be given for a failure in the course because the student has ceased to attend and participate in the first 60% of the semester in course assignments and activities. It is assigned when the student ceases to attend class but has not officially withdrawn. The *FN* grade is treated as an *F* in calculating the grade-point average.

Grade of I

In accordance with UMGC Policy 170.71 - Grade of Incomplete and Withdrawal - UMGC, a grade of Incomplete (*I*) will be awarded only if you have completed at least 60% of the course material with a passing grade, can present a compelling reason for an extension, and have made the request for an incomplete prior to the end of the semester.

The grade of *I* (Incomplete) is an exceptional mark given only to students whose work in a course has been satisfactory but who for reasons beyond their control have been unable to complete all the requirements of a course. The following criteria must be met:

- You must have completed the major portion of the work in the course.

- The work you have already completed must be of satisfactory quality.
- You must have requested the grade of *I* before the end of the course.

The guidelines for awarding the grade of *I* are as follows:

- The student must ask the instructor for a grade of *I*. (Teachers cannot award a grade of *I* on their own initiative.)
- The instructor decides whether to grant the request.
- The instructor sets a date, no more than four (4) months after submitting the original grade, for completion of the remaining requirements of the course.
- The instructor and the student together agree on the remaining requirements of the course and the deadline for submitting the work.
- The instructor and the student should fill out an Incomplete Contract: Incomplete Agreement Form-Faculty - UMGC, a copy of which should be sent to the Math/Stat Department for record.
- The student is responsible for completing the work.
- After the work is completed, the instructor submits a grade change form to replace the grade of *I* on the student's record with a letter grade.
- The grade of *I* cannot be removed by means of credit by examination.
- The grade of *I* cannot be replaced by a grade of *W* (defined above).
- If the student does not meet the deadline, the grade of *I* will be converted automatically to a final grade of *F*.

Students who elect to repeat an incomplete course must register again for the course, pay all applicable fees, and retake the course. For purposes of academic retention, your grade is counted as an *F*. The grade of *I* is not used in determining grade-point averages.

Changes in Grade

In accordance with UMGC policy on Procedure for Late Grade Changes - Exams & Testing - Faculty - UMGC, teachers may change a grade previously assigned only by submitting a Grade Adjustment Report, along with a letter giving the reasons for the change. Any change must be made no later than four (4) months after the original grade was awarded.

Academic Policies

ACADEMIC INTEGRITY

University of Maryland Global Campus (UMGC) has adopted a Philosophy of Academic Integrity (https://www.umgc.edu/current-students/learning-resources/academic-integrity/philosophy) to guide the university's commitment to a culture of academic integrity. Our approach cultivates socially responsible personal and professional behaviors and traits. All members of the University community must maintain the highest level of integrity across the academic experience.

Resources - UMGC provides an Academic Integrity Tutorial (https://www.umgc.edu/current-students/learning-resources/academic-integrity/tutorial) and an Integrity & Ethics Badge as learning resources. These resources include information on the fundamentals of academic integrity and how to apply your own personal ethics to coursework as a UMGC student and in other settings. Other Academic Integrity resources and guidelines are found at https://www.umgc.edu/current-students/learning-resources/academic-integrity (https://www.umgc.edu/current-students/learning-resources/academic-integrity).

Role of Instructor - Your instructor is your primary resource for how to uphold the highest ethical standards in the context of the specific requirements for this course.

Student Responsibility – You are responsible for using UMGC-approved resources to understand key academic integrity concepts and to support your own academic success through practices that uphold values of integrity: honesty, trust, fairness, respect, responsibility, and courage.

Turnitin - Turnitin is enabled within the classroom to support the development and assessment of authentic student writing. To learn more about Turnitin, the feedback it provides, how to use that feedback to improve your work, and your options regarding the inclusion of your work in the Turnitin database, visit University guides for Turnitin at https://libguides.umgc.edu/turnitin-faq (https://libguides.umgc.edu/turnitin-faq).

In keeping with our mission to prepare learners for careers and life after college, UMGC embraces the importance of artificial intelligence (AI) as part of that future. The efficient, effective, and ethical use of artificial intelligence tools to assist learning can prepare you for your career, especially tasks involving the top abilities that employers are seeking: problem solving, creativity, critical thinking, collaboration, and analysis. But, while using AI in some stages of your assignments will help to prepare you for your job, your use must also reflect the ethical requirements of your chosen profession and UMGC's Academic Integrity policy.

Within the context of professional ethics and academic integrity, the University generally permits the use of Generative Artificial Intelligence (GenAI) tools, like ChatGPT, for tasks such as generating ideas, brainstorming, finding background information, clarifying research questions, and improving one's grasp of coding or math concepts. These and other uses of artificial intelligence (AI) tools are acceptable as long as they align with an assignment's requirements and its intended learning goals. In addition, any AI content a student submits as part of an assignment should include citation or other forms of attribution. To assist you, student resources on proper use and attribution of AI tools to support learning can be found on UMGC's Library Website at this link: https://libguides.umgc.edu/artificial-intelligence (https://libguides.umgc.edu/artificial-intelligence).

CLASSROOM CIVILITY

University of Maryland Global Campus is committed to the success of our global community and values the diverse identities and backgrounds of our students, faculty, and staff. Each one of us has a broader life and set of experiences beyond UMGC that we bring with us to each interaction. Sharing your story with your classmates provides opportunities to learn, relate, and gain inspiration from each other. Engagement often

begins with introductions at the beginning of the course. Sharing your preferred name, preferred pronouns, and other details about yourself and your life builds a foundation for connection, understanding, and a richer and more personalized learning experience.

We also recognize that some of life's responsibilities and challenges outside of the classroom, such as childcare, a change in employment status, or illness, have an impact on success in a course. To the extent you are comfortable, we encourage you to communicate with your faculty member or Success Coach about any concerns you have for this course or as a student at UMGC so we can help you navigate potential obstacles and stay on track to achieve your goals.

Students are expected to work together cooperatively, and treat fellow students and faculty with respect, showing professionalism and courtesy in all interactions. Please review the Code of Civility for more guidance on interacting in UMGC classrooms: https://www.umgc.edu/current-students/student-life-and-support/student-handbook/civility-code (https://www.umgc.edu/current-students/student-life-and-support/student-handbook/civility-code).

POLICIES AND GUIDELINES

UMGC is committed to creating a climate in which everyone can thrive. UMGC's Non-Discrimination and Anti-Harassment Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/non-discrimination-and-anti-harassment) (Policy VI-1.00) and Sexual Misconduct Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/sexual-misconduct) (Policy 041.00) protect students, faculty, and staff.

Here you will find UMGC's Non-Discrimination Statement (https://www.umgc.edu/terms-conditions/nondiscrimination-statement).

Students with disabilities who need accommodations in a course are encouraged to contact the Office of Accessibility Services (OAS) at accessibilityservices@umgc.edu (mailto:accessibilityservices@umgc.edu), or call 240-684-2287.

The following academic policies and procedures apply to this course and your studies at UMGC.

150.25	Academic Integrity Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity) The University expects all members of the university community—students, faculty, and staff—to use guidelines to work with and promote integrity. If you are aware of any academic misconduct, please contact integrity@umgc.edu. All cases of academic misconduct will be addressed in accordance with Policy 150.25 (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity) and associated procedures. You are expected to engage in new learning that furthers your development of knowledge, skills, and abilities in each course. According to this policy, you may not submit a substantial portion of any coursework that you have submitted to any course previously without express written approval through assignment guidelines or other forms of communication. You must use UMGC course materials responsibly. Uploading course materials to any website outside of UMGC's online classroom is prohibited by this policy.
V-1.03	Code of Student Conduct (https://www.umgc.edu/administration/policies-and-reporting/policies/student-affairs/code-of-student-conduct)
170.40 170.41 170.42	The following policies describe the requirements for the award of each degree: Degree Completion Requirements for Graduate Students (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/graduate-school-degree-completion-requirements) Degree Completion Requirements for a Bachelor's Degree (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/bachelors-degree-completion-requirements) Degree Completion Requirements for an Associate's Degree (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/associates-degree-completion-requirements)
V-1.30	Student Reasonable Accommodation Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/student-affairs/reasonable-accommodations-students) - Students are responsible for self-identifying with Accessibility Services to inform the university about medical conditions and request academic accommodations.
170.71	Policy on Grade of Incomplete (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/grade-of-incomplete-policy) - Additionally, the mark of I depends on the following two criteria: Students who have completed 60% of their coursework with a grade of B or better for graduate courses or C or better for undergraduate courses and students who request an I before the end of the term. The mark of I is not available for noncredit courses.

170.72	Course Withdrawal Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/course-withdrawal) - Students must follow drop and withdrawal procedures and deadlines available at https://www.umgc.edu/admission/academic-calendar (https://www.umgc.edu/admission/academic-calendar) under Academic Calendar.
130.80	Procedures for Review of Alleged Arbitrary and Capricious Grading (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/capricious-grading-review) – Appeals may be made on final course grades as described herein.
IV-3.20	Intellectual Property (https://www.umgc.edu/administration/policies-and-reporting/policies/research/intellectual-property) - All university faculty, staff, and students must comply with University guidelines on the use of copyrighted material. Uploading UMGC or faculty copyrighted material without authorization degrades and corrupts the integrity of the teaching and learning experience and is a potential violation of UMGC policy and copyright law. You must obtain permission to post UMGC or other's copyrighted material to third-party websites, including social learning network sites. UMGC reserves the right to take appropriate action to remove copyrighted material uploaded without authorization.
205.06	Calculation Of Grade-Point Average (GPA) for Inclusion on Transcripts and Transcript Requests (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/grade-point-average-calculation-for-inclusion-on-transcripts-and-transcript-requests) - Note: Undergraduate and graduate courses have different Grading Policies. See the Grading Policies section of the Course Syllabus.
X-1.12	Acceptable Use (https://www.umgc.edu/administration/policies-and-reporting/policies/info-governance-security-technology/acceptable-use) - The security of the online classroom is critical to ensuring a strong culture of academic integrity and authentic education at the University. It is a violation of the University's policies for anyone to share logon, password, and any other secure information about a UMGC online account, including credentials required to access the online learning environment.

GRADING

According to UMGC's grading policy, the following marks are used:

	Undergraduate	Graduate
A	90-100%	90-100%
B	80-89%	80-89%
C	70-79%	70-79%*
D	60-69%	N/A**

F	59% or below	69% or below
FN	Failure-Non attendance	Failure-Non attendance
G	Grade Pending	Grade Pending
P	Passing	Passing
S	Satisfactory	Satisfactory
U	Unsatisfactory	Unsatisfactory
I	Incomplete	Incomplete
AU	Audit	Audit
W	Withdrew	Withdrew

* The grade of "B" represents the benchmark for graduate courses. Students must maintain a Grade Point Average (GPA) of 3.0 or higher. Classes where final grade of C or F places a student on Academic Probation must be repeated.
** UMGC does not award the grade of D in graduate courses.

GRADE ROUNDING

Scores to individual assignments are calculated based on rubrics in the class and are not rounded to the whole point. The final grade for the course is determined by weighted average and will be rounded to the nearest whole point using mathematical rule (grades with .5 and above to be rounded to the next whole point).

EXTRA CREDIT

Assignments are designed to enable students to achieve course objectives and succeed in the program. In the interest of equity and fairness, there will be no extra credit opportunities. All assignments are identified in the syllabus.

COURSE EVALUATION SURVEY

UMGC values its students' feedback. You will be asked to complete an online evaluation toward the end of the term. The primary purpose of this evaluation process is to assess the effectiveness of classroom instruction in order to provide the best learning experience possible and make continuous improvements to every class. Responses are kept confidential. Please take full advantage of this opportunity to provide your feedback.

LIBRARY SUPPORT

Extensive library resources and services are available online, 24 hours a day, seven days a week at https://libguides.umgc.edu/home (https://libguides.umgc.edu/home) to support you in your studies. The UMGC Library provides research assistance in creating search strategies, selecting relevant databases, and evaluating and citing resources in a variety of formats via its Ask a Librarian service.

EXTERNAL LINK DISCLAIMER

This course may contain links to external sites neither owned nor maintained by UMGC. UMGC bears no responsibility for the accuracy, legality, or content of external sites or for that of subsequent links. In addition, the terms of use, security policies, and privacy policies may differ from those of UMGC. Contact the external site for answers to questions regarding its content, terms of use, and policies.

LEARNING MANAGEMENT SYSTEM SUPPORT

Those requiring technical assistance can access Help@UMGC Support directly in LEO under the Help menu. Additional technical support is available 24 hours a day, seven days a week via self-help and live chat at https://www.umgc.edu/help (https://www.umgc.edu/help) or by phone toll-free at 888-360-8682.

SYLLABUS CHANGES

All items on this syllabus are subject to change at the discretion of the Instructor and the Office of Academic Affairs.

Class & Assignment Schedule

Students have access to a calendar tool on the course homepage within the classroom. All assignments are due at the end of the day (11:59pm in the US Eastern time zone) on the specified dates. A world clock is found at: http://www.timeanddate.com/worldclock/

Week	Activities

1	**Week 1: Orientation to Statistics, Data and Sampling Methods**
	
	(1/10 - 1/16)
	
	Read:
	
	• Announcement
	• Syllabus
	• Chapter 1 of Triola text
	• Chapter 2, Section 3 of Triola text
	• Additional Learning Resources contained in Week 1: Module
	
	Do:
	
	• Familiarize yourself with the Course Resources in LEO
	• Week 1 Participation
	  ◦ Introductions
	  ◦ Week 1 Discussion Participation
	• Week 1: Homework in MyStatLab
	  ◦ Ready - Prerequisite Week 1
	  ◦ Set - Skill Builder Week 1
	  ◦ Go - Graded Week 1

2	**Week 2: Descriptive Statistics: Graphs/Tables and Numerical Measures with Quantitative Data**
	
	(1/17 - 1/23)
	
	Read:
	
	• Chapter 2, Sections 1 and 2 of Triola text
	• Chapter 3 of of Triola text
	• Additional Learning Resources contained in Week 2: Module
	
	Do:
	
	• Week 2 Discussion Participation
	• Week 2 Homework Problems
	  ◦ Ready - Prerequisite Week 2
	  ◦ Set - Skill Builder Week 2
	  ◦ Go - Graded Week 2

3	Week 3: Basic Probability
	
	(1/24 - 1/30)
	
	Read:
	
	• Chapter 4 of Triola text
	• Chapter 5 of Triola text
	• Additional Learning Resources in Week 3: Module
	
	Do:
	
	• Week 3 Discussion Participation
	• Week 3 Homework Problems
	  ◦ Ready - Prerequisite Week 3
	  ◦ Set - Skill Builder Week 3
	  ◦ Go - Graded Week 3
	• Checkpoint quiz #1 in MyStatLab covers content from weeks 1 and 2

4	Week 4: Normal Distribution
	
	(1/31 - 2/6)
	
	Read:
	
	• Chapter 6 of Triola text
	• Review Empirical Rule on pages 112-113 of Triola text
	• Additional Learning Resources in Week 4: Module
	
	Do:
	
	• Week 4 Discussion Participation
	• Week 4 Homework Problems
	  ◦ Ready - Prerequisite Week 4
	  ◦ Set - Skill Builder Week 4
	  ◦ Go - Graded Week 4

5	Week 5: Confidence Intervals and Single-Sample Hypothesis Tests
	
	(2/7 - 2/13)
	
	Read:
	
	• Chapter 7 of Triola text
	• Chapter 8 of Triola text
	• Additional Learning Resources in Week 5: Module
	
	Do:
	
	• Week 5 Discussion Participation
	• Week 5 Homework Problems
	  ◦ Ready - Prerequisite Week 5
	  ◦ Set - Skill Builder Week 5
	  ◦ Go - Graded Week 5
	• Checkpoint quiz #2 in MyStatLab covers content from weeks 3 and 4

6	Week 6:Two Sample Hypothesis Tests and ANOVA
	
	(2/14 - 2/20)
	
	Read:
	
	• Chapter 9 of Triola text
	• Chapter 12 of Triola text
	• Additional Learning Resources in Week 6: Module
	
	Do:
	
	• Week 6 Discussion Participation
	• Week 6 Homework Problems
	  ◦ Ready - Prerequisite Week 6
	  ◦ Set - Skill Builder Week 6
	  ◦ Go - Graded Week 6

7	Week 7: Correlation, Linear Regression, and Chi Square
	
	(2/21 - 2/27)
	
	Read:
	
	• Chapter 2, Section 4 of Triola text
	• Chapter 10 of Triola text
	• Chapter 11 of Triola text
	• Additional Learning Resources in Week 7: Module
	
	Do:
	
	• Week 7 Discussion Participation
	• Week 7 Homework Problems
	  ◦ Ready - Prerequisite Week 7
	  ◦ Set - Skill Builder Week 7
	  ◦ Go - Graded Week 7
	• Checkpoint quiz #3 in MyStatLab covers content from weeks 5 and 6

8	Week 8: Review and Wrap-up (2/28 - 3/5) Do: • Week 8 Discussion Participation • Final Exam (comprehensive). The final exam is available in MyStatLab at 12:01 a.m. ET on Wednesday, 2/28 and is due at 11:59 p.m. ET on Tuesday, 3/5

CAHIIM digital health professional competencies mapping to STAT 200 objectives:

CoCourse # and Title	Course Contents	Course Outcomes	CAHIIM Competencies Mapped

STAT 200 Introduction to Statistics (3)	An introduction to statistics. The objective is to assess the validity of statistical conclusions; organize, summarize, interpret, and present data using graphical and tabular representations; and apply principles of inferential statistics. Focus is on selecting and applying appropriate statistical tests and determining reasonable inferences and predictions from a set of data. Topics include methods of sampling; percentiles; concepts of probability; probability distributions; normal, t-, and chi-square distributions; confidence intervals; hypothesis testing of one and two means; proportions; binomial experiments; sample size calculations; correlation; regression; and analysis of variance (ANOVA).	• Distinguish among sampling methods for the collection of data in order to assess the validity of statistical conclusions. • Organize, summarize, interpret, and present data using graphical and tabular representations. • Apply basic concepts of probability in order to assess the likelihood of an event. • Select and apply the statistical test or tests that are most appropriate to analyze a data set. • Determine reasonable inferences and predictions from a set of data to make appropriate decisions.	10.2. The learner will be able to demonstrate effective use of d analysis tools for digital healthc technology