

MA – 200: Topics in Statistics

Course Title: MA 200: Topics in Statistics

Credit Hours: 3

Level: Undergraduate

Prerequisite/Co-requisite: MA101 or College Math Placement

Course Format: Online

Location: Virtual

Course Description

Topics covered within descriptive statistics include construction of frequency distributions, histograms, stem-and-leaf displays, calculating central tendencies, standard deviations, percentiles and quartiles, box-and-whisker displays, location of outliers, linear regression, and correlation analysis for bivariate data. Probability topics include elementary probability (use of “and/or,” complements, conditional, mutually exclusive, and independent), binomial probability (graphing distributions, finding probabilities, and calculating means and standard deviations), normal distributions, Chebyshev's theorem and the empirical rule. For inferential statistics, topics covered include hypothesis testing (both classical and p-value testing) and estimating confidence intervals for quantitative and qualitative data sets, independent and dependent samples, chi-square tests, and ANOVA.

Course Objectives

Upon completion of this course, learners will be able to:

1. Use the terminology of statistics to describe a sample (LL Goal 1).
2. Find central tendencies, standard deviations, percentiles, quartiles, z- and t-scores, tests statistics, and critical values (LL Goal 1).
3. Construct frequency distributions (both grouped and ungrouped), histograms, ogives, stem-leaf displays, box-and-whisker displays, labeled diagrams used for classical hypothesis testing, and confidence intervals (LL Goals 1 & 3).
4. Identify an outlier in a sample of data (LL Goal 3).
5. Use correlation analysis and linear regression to determine a relationship between bivariate data (LL Goals 1 & 3).
6. Calculate elementary & binomial probabilities, along with means and standard deviations (LL Goal 1).
7. Perform and analyze the results of a hypothesis test (classical and p-valued hypothesis testing) (LL Goals 3 & 4).

Hilbert College's Liberal Learning Goals

1. *Foster Core Skills:* Advanced writing, speaking, listening, reading, quantitative skills, and technological fluency
2. *Prepare Students for Living in a Diverse and Global Society:* Awareness and appreciation of world cultures and languages, non-dominant groups and societies at home and abroad

3. *Emphasize and Develop Inquiry Strategies and Capabilities in a Variety of Disciplines across the curriculum:* Development of multiple, sophisticated problem-solving strategies that transcend traditional discipline boundaries
4. *Foster Research Skills:* Research and technology-enhanced investigation
5. *Promote Integrative Learning:* Collaborative work combining analytical and experiential learning
6. *Prepare Students for the Examined Life, Promoting Commitment to Lifelong Learning:* Development of motivation to develop a lifelong capacity for intellectual growth and self-renewal.

Grading System

The following grading standards are defined by Hilbert College:

Grade	Range
A	93 or above
A-	90-92.9
B+	87-89.9
B	83-86.9
B-	80-82.9
C+	77-79.9
C	73-76.9
C-	70-72.9
D+	67-69.9
D	63-66.9
D-	60-62.9
Unsatisfactory (Fail)	59.9 or less

Late Assignments

- NO work will be accepted 1 week after assigned.
- ALL assignments should be submitted via Blackboard. Please give yourself some lead-time when submitting assignments.
- It is the student's responsibility to adhere to the deadlines for course assignments. When deadlines are not met, grade penalties and delays in grading may result
- ALL work is due at 11:59 PM, EST on the date it is scheduled.
- Late submissions are accepted up to 7 days after the due date at a 20% reduction in points.
- A "0" will be automatically submitted for anything not submitted on time and will become permanent on day 8. Due to the necessity of submitting final grades immediately after the course ends, the 7-day late submission policy does not apply the last 2 weeks of class. No late assignments will be accepted in those last 2 weeks.
- Extensions are granted because of catastrophic emergencies for those who reach out prior to the scheduled due date of an assignment.

Response Time & Feedback on Assignments

- Feedback on assignments is typically within 48 hours for all submissions, although with larger class sizes there may be additional time required. Students can expect the following response times:
- Discussions will be graded within 72 hours using both a comment and rubric.
- Calls and emails will receive a response within 24 - 48 hours, except on major holidays which I will respond within 72 hours
- Grades and feedback on assignments and tests will be provided no more than 5 days after submission.

Students can expect instructors to respond within 48 hours to the “Ask the Professor” discussion.

Written Assignments

Required papers must be typed in a Word document and consistent with APA format. Guidelines will be provided for written assignments. Please note that students must have Microsoft Office in order to view feedback from faculty on assignments. Office 365 is available to all students to download; visit [Microsoft's website](#) to download.

Plagiarism

Cheating on exams or using another writer's original words or ideas without full and proper citation are serious academic offenses and could jeopardize a student's graduation from Hilbert College. To avoid plagiarism, students must professionally cite any outside sources according to the guidelines specified by the instructor. Effective Fall 2009 semester, any student who is caught plagiarizing written work or cheating on any form of test on two separate occasions will be automatically dismissed from the college. For a complete explanation of Hilbert's *Student Code of Ethics Policy* and judicial procedures, please refer to Hilbert's [Student Handbook](#).

Attendance & Participation

Students are expected to actively participate in the virtual classroom. **Each module begins on Monday at 12:01 am, EST and ends on Sunday at 11:59 pm, EST.** During each module you are expected to log into the class frequently to completed your assigned readings, activities, and post to discussion boards. Non-attendance, unless the appropriate drop/add or withdrawal forms have been processed, will result in a failure for the course.

Academic Dishonesty

Academic dishonesty is a violation of the Code of Ethics. It is the student's responsibility to seek guidance from the instructor, when he/she is unclear about any issue involving academic integrity. By matriculating at Hilbert College, students are automatically subject to the provisions of the Code of Ethics, and they are expected to uphold and support this Code of Ethics without compromise or exception. In addition, students are expected to comply with reporting procedures, when they notice any violation of the Code of Ethics.

Withdrawal from the course

Official withdrawal from Hilbert maintains a student's good standing and eligibility for readmission. To officially withdraw, a student must secure a withdrawal form from the Student Records Office, complete and return the form, and fulfill all financial obligations with the business/finance and student finance offices. Forms can be found through [Student Records Office at the link provided here.](#)

Online Learning Requirements and Proficiencies

You are required to be able to navigate the course by clicking links on the site.

Students need to be able to write assignments, copy and paste, create documents using Microsoft Office and be able to upload to Turnitin.com, email attachments and the ability to upload to the LMS. If you are not able to do so, please contact me before an assignment is due.

Students must be able to work as instructed to ensure you are properly prepared you should have Self-discipline, Problem solving skills, Critical Thinking skills and enjoy communicating in the written world.

Discussions – you are required to participate in discussions. You will need to do any initial post and follow-up posts. Please refer to the discussion board rubric for time and grading criteria

Blackboard Course Tools/Areas Overview		
Navigation Link	Description	You Should...
Announcements	These are course announcements your instructor posted about your coursework	Check these daily and have the notifications on to your email so you will be notified when a communication is sent out.
Start Here: Course Orientation	This orientation orients you to the course you are taking	Complete this before beginning your course. Use this as a resource when you need assistance on campus.
Syllabus	This is your course syllabus which is your guide of what is expected of you in the course.	Read the syllabus as one of your first tasks and refer to this throughout your coursework.
Learning Modules	This link has all of your coursework=.	Check in daily to see what coursework you need to complete for the Module.
Discussions	This links to the discussion boards.	Check in on discussions daily to respond and participate in your course.
My Grades	This links to your grades for the course.	Check your grades throughout the course to see how you are doing.
College Resources	These are Hilbert's resources available to students.	Check here if you need assistance.
Tutor.com	24/7 Tutoring and writing assistance	Use this resource for tutoring or to have a paper reviewed.

Zoom Classroom	This links to your instructors Zoom classroom	Click here when there is a Zoom session scheduled
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Role of Netiquette

The following outlines some key strategies for effective netiquette:

- Use standard grammar and spelling, and avoid “text speak” such as “lol” or “idk.”
- Be professional. Respectfully address the person you are speaking to, and avoid rude language, a confrontational tone, and all caps, which is the online equivalent to shouting.
- Write concisely. Develop your point with details and examples, but do not ramble or use unnecessary words. Your readers should be able to understand your point quickly.
- Do not dominate discussion. Allow others to speak, and read their input carefully before responding.
- Provide a link or reference for your sources so your readers know where you are getting your information.
- Use fonts that are easy to read (e.g., Arial, Times New Roman, Calibri).
- Format your writing in a consistent, clear, and readable manner. Avoid large blocks of text by using paragraphs and consistent spacing and making your writing welcoming for readers.
- Proofread. Carefully review what you have written and correct any errors or unclear wording. Small mistakes are unprofessional and potentially confusing.
- Think twice before sending or posting. Most messages cannot be retracted, and even editing a discussion board post will show a record of your changes, so do not commit to anything that you will regret later.
- Reply to others promptly.

Technical Skills Required for Online Courses

As an online student there are necessary skills you must have due to a much different “classroom” experience than a traditional student. In order to ensure that you are fully prepared for your online courses, following is a list of expectations and requirements: Students in a hybrid and/or on-line program should be comfortable with and possess the following skill sets:

1. Self-discipline
2. Problem solving skills
3. Critical thinking skills
4. Enjoy communication in the written word

As part of your online experience, you can expect to utilize a variety of technology mediums as part of your curriculum:

- Communicate via email including sending attachments
- Navigate the World Wide Web using a Web browser such as Google Chrome
- Use Microsoft Office (or similar) to create documents, spreadsheets, presentations etc.
- Be willing to learn how to communicate using a discussion board and upload assignments to a classroom Web site
- Be comfortable uploading and downloading saved files
- Downloading and installing software

- Have easy access to the Internet
- Play, listen and have the ability to create audio and video files

Digital Information Literacy Skills Required for Online Courses

Information literacy is the set of integrated abilities encompassing the reflective discovery of information (including being able to identify, locate, and critically evaluate sources), the understanding of how information is produced and valued, and the use of information in creating new knowledge (synthesis) and participating ethically in communities of learning.

[You can visit the McGrath Library for more assistance.](#)

Technical Requirements for Online Courses

- Laptop or Desktop with a modern web browser HTML5 capabilities
 - Google Chrome is the best supported browser
 - Google Chrome, Mozilla Firefox, Safari
- Webcam
- Microphone
- Internet connection
- Computer Plugins
 - Adobe Acrobat Reader, Java, Shockwave, Adobe Flash Player
- Video Players
 - Windows Media Player, QuickTime Player
- Software
 - [Microsoft Office](#)
- Hilbert Credentials (E-mail and LMS)

Technical Support

For technical support call the Hilbert Help Desk at (716) 926-8812 or email helpdesk@hilbert.edu

For assistance with Blackboard:

- Call (716) 926-8812 Option 2 for 24/7 Live support.
- Visit their site, for 24/7 support on [how to use Blackboard.](#)

Visit the [IT Help Desk Support](#) for assistance or call (716) 926-8812 or you can email them at helpdesk@hilbert.edu

Sharing of LMS Content Resources

Sharing content from the LMS classroom is strictly prohibited. All instructor and classmate postings are considered private and should not be shared. The content is to be only used to meet the learning objectives of the course by enrolled students.

Accessibility Statement

Hilbert College strives to make all learning experiences accessible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical

conditions), please notify the Director of Academic and Accessibility Services at ddimitrovski@hilbert.edu or (716) 926-8866. The Office of Accessibility Services, located in the Learning Commons at McGrath Library, can provide resources and/or reasonable accommodations in a timely manner to persons with documented disabilities. Early planning is essential, so please make any matters known as soon as possible.

Academic Services Center and Tutoring

The Academic Services Center offers various resources to assist students with their academic success free of charge. The Academic Services Center, located in The Learning Commons within McGrath Library, offers academic skills workshops, one-on-one course specific tutoring, learning strategies instruction, and academic counseling which includes one-on-one consultations on study skills, test-taking strategies, time management, note taking and reading strategies. You can view the schedules and sign up for these services by visiting [Academic Services Center](#).

Tutoring has been expanded to include the following online services:

- Writing Coordinator Resources Center – Submit a draft to be reviewed, join an online tutoring room by appointment and view various writing resources by visiting the [Writing Coordinator Resource Center](#)
- [Tutor.com](#) – a link to access tutoring 24 hours a day, 7 days a week through navigation within your Blackboard course

For additional information you may contact the Academic Services Center by calling (716) 926-8866 or by emailing asc@hilbert.edu

McGrath Library

The McGrath Library is the ideal research destination for students, faculty, and staff searching for access to research tools, materials, and professional instruction. [Visit the McGrath Library to learn more.](#)

Counseling Center

The Counseling Center offers a professional, confidential, and safe environment where all concerns of the student are treated with dignity and respect. Using a holistic approach to counseling, the counseling staff provides educational encouragement and support for a healthy mind, body, and spirit. We are also here to assist you with your college experience and will offer personal counseling, group support, and/or referrals depending on your individual need. No personal conflict or concern is considered too great or too small; and confidentiality is our top priority. [Visit this link to learn more.](#)

Title IX/Clery Act Reporting Statement

Hilbert College is committed to enhancing the safety and security of the campus for all its members. In support of this, faculty and staff are required to report their knowledge of certain crimes or harassment. Reportable incidents include harassment based on sex or gender prohibited

by Title IX and crimes covered by the Clery Act. For more information about Title IX protections, resources, and reporting please visit [Hilbert S.H.A.R.E](https://www.hilbert.edu/s.h.a.r.e) or contact the College's Title IX Coordinator, Gregory Roberts by email to groberts@hilbert.edu. For more information about the Clery Act and campus reporting, visit the [Campus Safety Fire and Safety Report](#).

Diversity Statement

It is my intent that students from all diverse backgrounds and perspectives be well- served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexual orientation, disability, age, socioeconomic status, ethnicity, race, religion, culture, perspective, and other background characteristics. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Privacy Policies & Accessibility Statements

The following are links to Privacy Policies and Accessibility Statements for the technologies using in this course:

- Blackboard
 - [Blackboard Privacy Statement](#)
 - [Blackboard Accessibility Statement](#)
 - [Blackboard Collaborate Privacy Policy](#)
- Microsoft Office 365
 - [Microsoft 365 Privacy Statement](#)
 - [Microsoft 365 Accessibility Statement](#)
- [Hilbert College's Confidentiality & FERPA Privacy Policy](#)
- You Tube
 - [YouTube Privacy Policy](#)
 - [YouTube Accessibility Statement](#)
- [TEDEd Privacy Policy](#)
- [Wikipedia Privacy Policy](#)
- Self-Service
 - [PowerCampus – Ellucian Privacy Statement](#)