![HCC logo]

Instructional Services · Mathematics · Mathematics

Elementary Statistical Methods-11565

MATH-1342

RT 2022 Section 516 3 Credits 01/18/2022 to 05/15/2022 Modified 01/07/2022

🕐 Course Meetings

Course Modality

Online on a Schedule (WS) for the first two weeks of the semester

Fully online course with virtual meetings at scheduled dates and times

In-Person (P) for the reminder of the semester

Safe, face-to-face course with scheduled dates and times

Meeting Days

Monday and Wednesday

Meeting Times

12:30 to 1:50 pm

Meeting Location

For the first two weeks of the semester: In Canvas, select Cisco Webex at the left panel. Click the green Join button next to the day of the meeting.

For the reminder of the semester: Eastside Campus, Felix Morales Building Room 314.

👤 Welcome and Instructor Information

Professor: Sherry Liu

Email: Sherry.Liu@hccs.edu
Office: Felix Morales 124E
Phone: 713-718-6913
Website: https://learning.hccs.edu/faculty/sherry.liu (https://learning.hccs.edu/faculty/sherry.liu)

What's Exciting About This Course

This course offers you an opportunity to refresh your knowledge from earlier studies as well as to learn new information. All material will be presented in a supportive learning environment with a focus on mastering important concepts. You will learn essential skills that can be applied toward your future studies and ultimately assist you in achieving your academic and personal goals in life.

My Personal Welcome

I am delighted to welcome you to this course! While I happen to love math, I understand that not everyone does. One of my passions is show students that with a little guidance and practice, math can be used to improve one's performance at work and even in everyday life.

My goal in this course is to provide you with a supportive learning environment. If you feel any aspect of the course instruction, subject matter, or class environment is inappropriate, please contact me privately to discuss.

Preferred Method of Contact

Please feel free to contact me concerning any challenges that you may experience in this course. My goal for this class is your success. Remember, the effort must come from you; let me know what support you require. I am available to hear your concerns and/or to just discuss course topics. Use HCC Email or Canvas Inbox to communicate. I will respond to your message within 24 hours Monday through Friday; I will reply to weekend messages on Monday.

Office Hours

Monday, Wednesday, 12:00 PM to 12:30 PM, Eastside Campus Felix Morales Rm 124

Tuesday, Thursday, 12:00 PM to 1:30 PM, Canvas/Cisco Webex/Virtual Office Hours

On occasions, I need to adjust my virtual offices hours for meetings and other HCC related responsibilities. Refer to Cisco Webex, Office Hours tab for current information.

🖥️ Course Overview

Course Description

MATH 1342 - Elementary Statistical Methods Credits: 3 (3 lecture). This course is intended for students primarily in health sciences and business rather than math or science majors. It consists of concepts, ideas, and applications of statistics rather than a theory course. Topics include histograms, measures of central tendency and variation, probability, binomial and normal distributions, and their applications, confidence intervals, and tests of statistical hypotheses. Core curriculum course.

Prerequisites

A grade of C or better in Math 0310 or its equivalent or an acceptable placement score. A grade of C or better in Math 0314 its equivalent or an acceptable placement score.

Co-requisites

MATH 0342 is a co-requisite to MATH 1342. Since MATH 0342 is co-requisite with MATH 1342, withdrawing from either MATH 0342 or Math 1342 will necessitate withdrawal from the other as well.

Department Website

https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/mathematics/

◎ Core Curriculum Objectives (CCOs)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

- *Critical Thinking*: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- *Communication Skills*: to include effective development, interpretation and expression of ideas through written, oral and visual communication.

- *Quantitative and Empirical Literacy*: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

📊 Student Learning Outcomes and Objectives

Program Student Learning Outcomes (PSLOs)

Students in the Mathematics Program will:

1. Engage in problem solving strategies, such as organizing information, drawing diagrams and modeling.
2. Use symbolic representations to solve problems. This includes manipulating formulas, solving equations, and graphing lines.
3. Build the foundational mathematical skills that will enable a student to successfully complete a college level mathematics course.

Course Student Learning Outcomes (CSLOs)

Upon completion of MATH 1342, the student will be able to:

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.

Learning Objectives

Upon completion of MATH 1342, the student will be able to:

1. Demonstrate knowledge of statistical terms.
2. Understand the different between descriptive and inferential statistics.
3. Identify: types of data, measurement level of variables, and four basic sampling techniques.
4. Construct the relative frequency table from a given set of ungroup data.
5. Know and use the different graphs: histogram, frequency polygon, Ogives, Pareto, and pie to present data.
6. Compute the mean, median, mode, midrange, range, variance, and standard deviation.
7. Identify the various measures of position such as percentiles, deciles, and quartiles.
8. Find the total number of outcomes in a sequence of events using tree diagram and multiplication rule.
9. Understand the use of permutation and combination rules.
10. Determine sample spaces and find the probability of an event using classical probability.
11. Find the probability of compound events using addition and/or multiplication rules.
12. Find the conditional probability of an event
13. Construct a probability distribution for a random variable
14. Find the mean, variance, and expected value for a probability distribution function.
15. Find the exact probability for X successes in n trial of a binomial experiment.
16. Find the mean, variance, and standard deviation for binomial distribution.
17. Identify the properties of the normal distribution.
18. Find the area under the normal curve, given various z values.
19. Find probabilities for a normally distributed variable by transforming it into a standard normal variable.
20. Find specific data values for given percentages using the standard normal distribution.
21. Apply the central limit theorem to solve problems involving sample means.
22. Use the normal approximation to compute probabilities for a binomial variable.
23. Find a confidence interval for the mean when σ is known or n
24. Determine the minimum sample size for finding a confidence interval for the mean.
25. Find a confidence interval for the mean when σ is unknown and n < 30.
26. Find a confidence interval for proportion.

27. Determine the minimum sample size for finding a confidence interval for a proportion.
28. Find a confidence interval of variance and standard deviation.
29. Understand the definitions used in hypothesis testing.
30. State null hypothesis and alternative hypothesis.
31. Understand the terms: type I error and type II error, test criteria, level of significance, test statistic.
32. Find the critical values for the z-test, t-test, and -test.
33. Test hypothesis for: means (large and small sample), proportions, variance, and standard deviation.
34. Draw scatter plot for a set of ordered pairs.
35. Compute the correlation coefficient and the coefficient of determination.
36. Compute the equation of the regression line by using the least square method.
37. Test a distribution for goodness of fit using chi-square.
38. Test independence and homogeneity using chi-square.

☰ Departmental Practices and Procedures

The Mathematics Department has specific expectations for calculators, proctored exams and grading policies. Refer to the Course Requirements and Devices sections below.

▤ Instructional Materials and Resources

Instructional Materials

The textbook listed below is required for this course:

Elementary Statistics, A Step by Step Approach, 10th Edition, By Bluman, McGraw-Hill Education, ISBN: 978-1264094592

ISBN: 9781260364323 (access code with e-book)

You may either use a hard copy of the book or the e-book through the homework system. The [HCC Online Bookstore (https://hccs.bncollege.com/shop/hccs-central/page/find-textbooks)](https://hccs.bncollege.com/shop/hccs-central/page/find-textbooks) provides searchable information on textbooks for all courses.

Temporary Free Access to E-Book

Students have access to e-book upon registration with ALEKS.

Other Instructional Resources

All students are required to register for ALEKS homework system.

✔ Course Requirements

Assignments, Exams, and Activities

Type	Weight	Topic	Notes
ALEKS Homework Assignments	25%		Complete ALEKS assignments by their due dates.
Projects	10%		View project descriptions and deadlines in Canvas.
Quizzes	10%		Take quizzes in ALEKS by their due dates.

Type	Weight	Topic	Notes
Tests	30%		There are 4 major exams in addition to a comprehensive final exam. Students are responsible to bring their own calculator, a copy of formula sheet and tables necessary for testing. At the time of a test, if the class is meeting in person: Everyone is required to take a written exam in class at the time when the class is scheduled. At the time of a test, if the class is meeting online: The Math Department is requiring the remote proctoring of examinations (including the final exam) to ensure the integrity of the assessment process and to prevent acts of academic dishonesty. In this course, in addition to a reliable internet connection, you will be required to have hardware that meets the following minimal requirements: a) A functioning webcam and microphone, and b) A computer with operating system that is capable of running the Respondus LockDown Browser and Respondus Monitor. If you do not have access to a computer that meets the required specifications, contact HCC Library to check out a laptop for the semester. https://library.hccs.edu/laptops
Final Exam	25%		Students are responsible to bring their own calculator, copies of formula sheet and tables. The final exam will be given on the assigned day according to the HCC final exam schedule. The Math Department will offer several Final Exam Review sessions (i.e., HCC Math Days) for this course near the end of the semester (Fall and Spring semesters only). We encourage you to attend at least one of these sessions as you prepare for the comprehensive Final Exam. Your professor will provide you with more information regarding HCC Math Days locations and session times later in this semester. While the full-time Math Department faculty leading these review sessions are prepared to answer students' questions on a variety of course topics, the Final Exam Study Guide will provide the basis for the HCC Math Days sessions. Therefore, to get the most out of these review sessions, be sure review and to work through the Final Exam Study Guide before you attend the review session(s). Please ask your professor if you have any questions regarding these sessions. The Math 1342 Final Exam Study Guide and the dates for the Math Days review sessions are located at: https://cofinite.com/MathDays/Math1342.php (https://cofinite.com/MathDays/Math1342.php)

Grading Formula

Grade	Range	Notes
A	90 - 100%	
B	80 - 89%	
C	70 - 79%	
D	60 - 69%	
F	< 60%	
FX	< 60%	The grade of FX is given when a student fails due to lack of attendance.
W		A grade of W may be given on or before the official withdraw date but not at the time of the final grade submission. The last day to withdraw is 4/4/2022.

✳ Instructor's Practices and Procedures

Incomplete Policy

In order to receive a grade of Incomplete ("I"), a student must have completed at least 85% of the work in the course. In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

Missed Assignments/Make-Up Policy

If you miss a test, you must explain and provide proof to request a makeup via email within 72 hours. Permissions for makeup tests are granted ONLY for provable extenuating circumstances. Make up exams must be completed prior to the next exam.

No makeup for the final exam.

Academic Integrity

Scholastic Dishonesty will result in a referral to the Dean of Student Services.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/ (https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/)

Attendance Procedures

Attendance is recorded each day. Even though attendance is not part of your grade, lack of engagement tends to correlate with poor grades. If you miss any class, you are encouraged to meet with classmates or seek help from the HCC tutoring center. Students are responsible for any missed instruction due to absent.

Lack of attendance does not automatically withdraw you from the class. If you wish to withdraw, you must submit your selection in PeopleSoft before the deadline.

Student Conduct

Time management and self motivation are critical for your success. Allocate time to attend classes and to practice homework problems. You are responsible for all topics covered in homework assignments whether they were specifically discussed during class. It is your responsibility to bring questions to class.

Instructor's Course-Specific Information

Begin the semester with the end in mind. If your degree plan requires a particular minimum grade to transfer, then plan your time and effort accordingly. Whether this is your last semester before transferring or if you are an international student, do not request or expect special treatment.

Devices

The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for the purposes other than student learning is strictly prohibited unless authorized as an appropriate ADA accommodation from the ADA Counselor.

A calculator is required for this class. Please learn how it works during homework exercises. The class does not teach calculator instruction. Recommended calculator includes: TI 30, 83, 84 or equivalents.

Faculty-Specific Information Regarding Canvas

This course section uses Canvas (https://eagleonline.hccs.edu (https://eagleonline.hccs.edu)) for assignments and other activities.

HCCS Open Lab locations may be used to access the Internet and Canvas. **For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on**

Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

Social Justice Statement

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of discrimination, please contact me and/or the Office of Institutional Equity at 713-718-8271.

🏛 HCC Policies and Information

HCC Grading System

HCC uses the following standard grading system:

Grade	Grade Interpretation	Grade Points
A	Excellent (90-100)	4
B	Good (80-89)	3
C	Fair (70-79)	2
D	Passing (60-69), except in developmental courses.	1
F	Failing (59 and below)	0
FX	Failing due to non-attendance	0
W	Withdrawn	0
I	Incomplete	0
AUD	Audit	0
IP	In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.	0
COM	Completed. Given in non-credit and continuing education courses.	0

Link to Policies in Catalog and Student Handbook

Here's the link to the HCC Catalog and Student Handbook: [https://catalog.hccs.edu/ (https://catalog.hccs.edu/)](https://catalog.hccs.edu/)

In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

Link to HCC Academic Integrity Statement

https://www.hccs.edu/student-conduct (https://www.hccs.edu/student-conduct) (scroll down to subsections)

Campus Carry Link

Here's the link to the HCC information about Campus Carry:

https://www.hccs.edu/campuscarry (https://www.hccs.edu/campuscarry)

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID (https://www.hccs.edu/email) and activate it now. You may also use Canvas Inbox to communicate.

Office of Institutional Equity

Use the following link to access the HCC Office of Institutional Equity, Inclusion, and Engagement: https://www.hccs.edu/eeo (https://www.hccs.edu/eeo)

Ability Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to https://www.hccs.edu/accessibility (https://www.hccs.edu/accessibility)

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX

prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross
Director EEO/Compliance
Office of Institutional Equity & Diversity
3100 Main
(713) 718-8271
Houston, TX 77266-7517 or Institutional.Equity@hccs.edu (mailto:Institutional.Equity@hccs.edu)

https://www.hccs.edu/titleix (https://www.hccs.edu/titleix)

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/ (https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/)

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Canvas Learning Management System

Canvas is HCC's Learning Management System (LMS), and can be accessed at the following URL:

https://eagleonline.hccs.edu (https://eagleonline.hccs.edu)

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it's built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

HCC Online Information and Policies

Here is the link to information about HCC Online classes, which includes access to the required Online Information Class Preview for all fully online classes: https://www.hccs.edu/online/ (https://www.hccs.edu/online/)

Scoring Rubrics, Sample Assignments, etc.

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. https://eagleonline.hccs.edu/ (https://eagleonline.hccs.edu/)

Instructor and Student Responsibilities

<u>As your Instructor, it is my responsibility to</u>:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students during office hours, and before and after class as required

<u>As a student, it is your responsibility to</u>:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the HCCS Student Handbook (https://www.hccs.edu/studenthandbook)

EGLS3

The EGLS[3] (Evaluation for Greater Learning Student Survey System (https://www.hccs.edu/egls3)) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS[3] surveys are only available for the Fall and Spring semesters. EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

https://www.hccs.edu/egls3 (https://www.hccs.edu/egls3)

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Student Resources

Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the HCC Tutoring Services (https://www.hccs.edu/tutoring) website for services provided.

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at https://library.hccs.edu (https://library.hccs.edu/).

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded

in completion of the specified course, and who earned a grade of A or B. Find details at [https://www.hccs.edu/supplemental-instruction (https://www.hccs.edu/supplemental-instruction)](https://www.hccs.edu/supplemental-instruction)

Resources for Students:

[https://www.hccs.edu/covid19students (https://www.hccs.edu/covid19students)](https://www.hccs.edu/covid19students)

Basic Needs Resources:

[https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/ (https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/)](https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/)

Student Basic Needs Application:

[https://www.hccs.edu/basicneeds (https://www.hccs.edu/basicneeds)](https://www.hccs.edu/basicneeds)

COVID-19

Here's the link to the HCC information about COVID-19:

[https://www.hccs.edu/covid-19 (https://www.hccs.edu/covid-19)](https://www.hccs.edu/covid-19)

Sensitive or Mature Course Content

In this college-level course, we may occasionally discuss sensitive or mature content. All members of the classroom environment, from your instructor to your fellow students, are expected to handle potentially controversial subjects with respect and consideration for one another's varied experiences and values.

Instructional Modalities

In-Person (P)

Safe, face-to-face course with scheduled dates and times

Online on a Schedule (WS)

Fully online course with virtual meetings at scheduled dates and times

Online Anytime (WW)

Traditional online course without scheduled meetings

Hybrid (H)

Course that meets safely 50% face-to-face and 50% virtually

Hybrid Lab (HL)

Lab class that meets safely 50% face-to-face and 50% virtually

Copyright Statement

In order to uphold the integrity of the academic environment and protect and foster a cohesive learning environment for all, HCC prohibits unauthorized use of course materials. Materials shared in this course are based on my professional knowledge and experience and are presented in an educational context for the students in the course. Authorized use of course materials is limited to personal study or educational uses. Material should not be shared, distributed, or sold outside the course without permission. Students are also explicitly forbidden in all circumstances from plagiarizing or appropriating course materials. This includes but is not limited to publically posting quizzes, essays, or other materials. This prohibition extends not only during this course, but after. Sharing of the materials in any context will be a violation of the HCC Student Code of Conduct and may subject the student to discipline, as well as any applicable civil or criminal liability. Consequences for unauthorized sharing, plagiarizing, or other methods of academic dishonesty may range from a 0 on the specified assignment and/or up to expulsion from Houston Community College. Questions about this policy may be directed to me or to the Manager of Student Conduct and Academic Integrity.

📅 Course Calendar

Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

Dates	1342 Topics/Activities
1/18	1.1 Descriptive and Inferential Statistics (9, 10, 12, 13) 1.2 Variables and Types of Data (5, 8, 11, 13, 15, 23, 27) 1.3 Data Collection and Sampling Techniques (11, 12) 1.4 Experimental Design (15, 16, 17, 18, 19, 20, 21) 1.5 Computers and Calculators
1/24	2.1 Organizing Data (9, 10, 11, 13, 15) 2.2 Histograms, Frequency Polygons and Ogives (2, 3, 8) 2.3 Other Types of Graphs (1, 4, 7, 9, 14, 18, 22) Quiz 1 covers chapter 1
1/31	3.1 Measures of Central Tendency (3, 10, 29, 30) 3.2 Measure of Variation (7, 9, 27, 29, 31, 33, 35, 41, 43, 45) 3.3 Measures of Position (10, 12, 14, 16, 17, 28, 30) 3.4 Exploratory Data Analysis (2, 8, 11, 13)
2/7	Test 1 over chapters 1, 2 and 3 4.1 Sample Spaces and Probability (10, 11, 13, 15, 21, 28, 32) 4.2 The Addition Rules for Probability (3, 4, 7, 11, 17, 21) 4.3 The Multiplication Rules and Conditional Probability (1, 2, 4, 6, 10, 12, 14, 16, 30, 32, 35)
2/14	4.4 Counting Rules (3, 6, 9, 13, 15, 24, 25, 26, 33, 35, 38, 40, 46, 56, 63) 4.5 Probability and Counting Rules (4, 6, 7) Quiz 2 covers 4.1 – 4.3
2/21	President's Day 5.1 Probability Distributions (7, 9, 11, 24, 28) 5.2 Means, Variance, Standard Deviation and Expectation (4, 6, 7, 12 16, 18)

2/28	Project 1 due 5.3 The Binomial Distribution (7, 8, 20, 22, 24, 30) 5.4 Other Types of Distribution (1, 4, 8, 10, 12)
3/7	Test 2 over chapters 4 and 5 6.1 Normal Distributions (8, 10, 12, 14, 16, 18, 20, 32, 34, 36, 41, 43, 45, 46, 47, 48, 49, 50)
3/14	Spring Break
3/21	6.2 Applications of Normal Distribution (1, 2, 6, 7, 8) 6.3 The Central Limit Theorem (7, 9, 16, 18, 22) 6.4 The Normal Approximation to the Binomial Distribution (5, 7, 9, 10, 13, 18, 20) Quiz 3 covers 6.1
3/28	7.1 Confidence Intervals for the Mean When Variance is known (7, 10, 11, 17, 20, 22) 7.2 Confidence Intervals for the Mean When Variance is unknown (3, 5, 11, 12, 13, 14) 7.3 Confidence Intervals and Sample Size for Proportions (3, 4, 6, 8, 11) 7.4 Confidence Intervals for Variance and Standard Deviations (3, 4, 6, 8, 11)
4/4	Test 3 over Chapters 6 and 7 8.1 Steps in Hypothesis Testing (12, 13, 14) 8.2 z Test for a Mean (2, 4, 5, 9, 11, 13, 15, 19)
4/11	8.3 t Test for a Mean (4, 7, 13, 17, 19) 8.4 z Test for a Proportion (5, 7, 11, 17, 20) 9.1 Testing the Difference Between Two Means using z Test (5, 6, 8, 10, 11) 9.2 Testing the Difference Between Two Means of Independent Samples using t Test (4, 8, 16) Quiz 4 covers 8.1 and 8.2
4/18	9.3 Testing the Difference Between Two means Dependent Samples (2, 4, 5, 6) 9.4 Testing the Difference Between Proportions (1, 3, 5, 10, 14)
4/25	Test 4 Over Chapters 8-9 10.1 Scatter Plots and Correlation (1, 4, 7, 17) 10.2 Regression (1, 4, 7, 17)

5/2	Project 2 due 10.3 Coefficient of Determination and Standard Error of the Estimate (1, 4, 8, 10) Final Exam Review
5/11	Comprehensive Final Exam Wednesday May 11 at 12pm

Additional Information

Departmental/Program Information

Program Information for Majors: https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/mathematics/

HCC Math Student Organization: Mu Alpha Theta: Application: https://www.hccs.edu/resources-for-current-students/stem--science-technology-engineering--mathematics/stem-clubs/mu-alpha-theta-application/

Process for Expressing Concerns about the Course

If you have concerns about any aspect of this course, please reach out to your instructor for assistance first. If your instructor is not able to assist you, then you may wish to contact the Department Chair.

Mathematics Courses

Chair of Math	Mahmoud Basharat	SW Campus	713-718-2438	Stafford Scarcella, N108
- Admin. Assistant	Tiffany Pham	SW Campus	713-718-7770	Stafford Scarcella, N108
- Admin. Assistant	Christopher Cochran	SW Campus	713-718-2477	Stafford Scarcella, N108
Math Assoc. Chair	Jaime Hernandez	CE Campus	713-718-7772	San Jacinto Building, Rm 369
Math Assoc. Chair	Susan Fife	NW Campus	713-718-7241	Katy Campus Building, Rm 112
Math Assoc. Chair	Hien Nguyen	NE Campus	713-718-2440	Northline, Rm 324

Developmental Mathematics Courses

Chair of Dev. Math	Dorothy A. Muhammad	SE Campus	713-718-5846	Felix Morales Building, Rm 124
- Admin. Assistant	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Jack Hatton	SE Campus	713-718-2434	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Adnan Ulhaque	SW Campus	713-718-7969	Felix Morales Building, Rm 124/ Stafford Scarcella, N108