WAYLAND
BAPTIST UNIVERSITY.

WBUOnline
SCHOOL OF MATHEMATICS & SCIENCES

Wayland Mission Statement:
Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success and service to God and humankind.

Course Name: MATH 1306-VC01; Elementary Statistics
Term: Fall1 2022
Instructor: Dr. William Hahn

Office Phone Number and WBU Email Address:
806-291-1127
hahnw@wbu.edu

Class Meeting Time and Location: Online (Asynchronous)

Catalog Description:
Sampling, describing and exploring data, distributions, confidence intervals, hypothesis testing, correlation and regression, analysis of variance, and statistical software use.

Prerequisites:
MATH 1303 (Mathematics for Liberal Arts) or MATH 1304 (College Algebra)

Required Textbook:
MyStatLab Access – *Elementary Statistics*, by Mario Triola
(Your access to this e-book and online homework is provided through Blackboard)
Supplies:
Lecture Notes for Elementary Statistics by Dr. William Hahn (downloadable from Blackboard).
Calculator.

Course Outcome Competencies:
1. The student will be able to distinguish between different types of data, different types of sampling, and different types of studies.
2. The student will be able to give accurate and appropriate graphical and numerical summaries of univariate and bivariate data.
3. The student will be able to calculate and interpret probabilities using tables, the binomial distribution, and the normal distribution.
4. The student will be familiar with the assumptions associated with statistical inference, and will know how to check those assumptions.
5. The student will be able to conduct and interpret statistical inference on proportions and means, particularly confidence intervals, sample size calculations, and hypothesis tests.
6. The student will be able to describe relationships between variables, to fit and interpret simple linear regression models, and to make and interpret predictions.
7. The student will be able to analyze one-way and two-way ANOVA.

8. The student will understand the importance of randomization in observational studies and experiments, particularly regarding cause-and-effect interpretations and generalization to a population.
9. The student will be able to think critically, identifying common statistical errors.
10. The student will become familiar with statistical software.

Attendance Requirements:
Students are expected to participate in all required instructional activities in their courses. In this course, your weekly assignments (including watching the videos, completing the homework, and taking the quizzes) will be the measure of attendance. Any week in which a student does not complete any work, the student will be considered "absent." Any student absent 25% or more (i.e., non-participatory during 3 or more weeks of the term) will receive an F for the course.

Statement on Plagiarism and Academic Dishonesty:
Wayland Baptist University observes a zero tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported, and second offenses will result in suspension from the university.

Disability Statement:
In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

Course Requirements and Grading Criteria:
> **Homework**: Several homework assignments will be completed each week in MyStatLab which will be accessible through Blackboard. Each assignment counts as one grade. All homework assignments may be worked early and will be available on the first day of class. Also, assignments can be worked after the due date, with a late submission penalty. The lowest homework grade will be dropped.
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> **Quizzes:** One or two quizzes will be completed each week in MyStatLab which will be accessible through Blackboard. You can take each quiz twice and your higher score will be counted. Your instructor will review all completed quizzes for typographical errors. Quizzes can be completed early, but no extensions will be given. The lowest quiz grade will be dropped.
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> **Exams:** There will be two exams: a Midterm and a Final. Each will cover approximately half the course. Both of these paper and pencil tests are to be taken in person at one of the external campuses (preferred) or a testing center. They must be proctored by an approved representative of the University.
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> **Grade Calculation:**
> | | |
> |---|---|
> | 25% | **Homework** |
> | 25% | **Quizzes** |
> | 50% | **Exams** |
>
> A: 90 – 100   B: 80 – 89   C: 70 – 79   D: 60 – 69   F: Below 60

Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Executive Vice President/Provost to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.

Tentative Schedule (All times are for the Central Time Zone):

Week 1: August 8 – August 15
Syllabus Quiz due by Wednesday, August 10 at midnight
Videos and Notes for Chapters 1, 2, and 3
Homework Assignments (5), Quiz 1 and Quiz 2 due by Monday, August 15 at midnight

Week 2: August 16 – August 22
Videos and Notes Chapters 4, 5, and 6
Homework Assignments (4), Quiz 3 and Quiz 4 due by Monday, August 22 at midnight

Week 3: August 23 – August 29
Videos and Notes for Chapter 7
Homework Assignments (2), Quiz 5 and Quiz 6 due by Monday, August 29 at midnight

Week 4: August 30 – September 3
Midterm covering Chapters 1-7 (Paper and Pencil Exam, Proctored)
due by Saturday, September 3 at midnight

Week 5: September 4 – September 12
Videos and Notes for Chapter 8
Homework Assignments (3), Quiz 7 and Quiz 8 due by Monday, September 12 at midnight

Week 6: September 13 – September 19
Videos and Notes for Chapter 10
Homework Assignments (3) and Quiz 9 due by Monday, September 19 at midnight

Week 7: September 20 – September 26
Videos and Notes for Chapters 12 and 1
Homework Assignments (4), Quiz 10 and Quiz 11 due by Monday, September 26 at midnight

Week 8: September 27 – October 1
Final Exam covering Chapters 7, 8, 10, 12, 1 (Paper and Pencil Exam, Proctored)
due by Saturday, October 1 at midnight

Academic Honesty:
Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to this course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanctions to any student involved.

The School of Mathematics and Sciences emphasizes a rigorous, ethical approach to the study of mathematics and science. We believe that success in these disciplines requires a broad base of content knowledge and the development of the critical thinking skills necessary for the ongoing acquisition, processing and communication of current subject matter. The activities of the School, both academic and professional, intentionally reflect the Lordship of Jesus Christ and His centrality to all of creation.

Important Dates:
First day of class	August 8
Last day to drop without record	August 15
Last day to withdraw with "W"	September 9
Last day to withdraw with "WP/WF"	September 23
Last day of class	October 1

Course Communication Policy:
Wayland email is the official method of communication between instructors and students taking courses through Wayland Baptist University. Students are required to establish and activate their Wayland email account. Instructors reserve the right to deny email from other sources.

This syllabus is only a plan. The teacher may modify the plan during the course. The requirements and grading criteria may be changed during the course if necessary.