

Statistics MAT 4512 Spring 2023
Dual Credit with BSU MATH 181
Mrs. Wright

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Office Hours:

Monday: 10 am – 11:50
Tuesday: 10 am – 11:50
Wednesday: 10 am – 11:50
Thursday: By appointment
Friday: 10 am – 11:50

**Also by appointment*

If my door is open feel free to stop in!

Text: *Intro Stats* (fourth edition); by DeVeaux, Velleman and Bock; Pearson

Also Required: TI – 83 Plus or TI – 84 or higher calculator, or equivalent

Prerequisites: Advanced Algebra and Trigonometry (MAT 3001 and 3002), or appropriate score on the SAT/ACT, or appropriate scores on the mathematics placements tests, or permission of the department chairperson.

Course overview:

This course covers and guides students through discovering statistical concepts, explore statistical principles, and apply statistical techniques. The course focuses on developing statistical reasoning through analysis of genuine data. The students will learn to describe the distribution of a variable, compare the distributions of two or more variables, and describe the relationship between two variables. The course introduces the issues of sampling, surveys, and experiments. Probability is introduced through simulations and these simulations build an understanding of the Central Limit Theorem. Inferences from data include confidence intervals and significance tests for a proportion, a mean, the difference between two proportions, the difference between two means, both for matched pair designs and independent samples, and differences in distributions. Exploratory data analysis, data production issues and interpretation of results by the students are emphasized throughout.

Attendance:

You are required to attend every class session, in accordance with Indiana Academy attendance policies. I understand clocks can be a minute or two off, so I will grant leniency for the first few minutes of class, but at 3 or more minutes you are officially “Tardy” and after 15 minutes you are officially “Absent.” However, class time is very valuable, so I strongly encourage you to get to class no matter how late you may be. This will make your process of learning what was covered in class that day much easier. Sleeping in class will result in an unexcused absence without notice.

Evaluation:

In this course you will be expected to watch and take notes on a topic video every night, complete the associated notes quizzes, complete periodic mini projects, and a test every unit. As this course is following a flipped design you will be expected to engage with the content videos each night, taking notes like you’re in class, and complete the understanding check “notes quiz” as well. The mini projects are worth 20 points each for a quiz grade. The tests are not cumulative in the sense that you will see questions directly from previous units, but statistics especially is a cumulative discipline so you will need to apply knowledge from previous units to help solve new problems. There will also be a final project, and it will be due the last day of class. Details on the final project are provided separately. The optional presentation of your project will take place during finals week. For dates of tests and project check points please refer to the most recent version of the course schedule.

Grading Scheme:

Your grade in this course will be determined by the following percentage values.

Tests – 50% total (10% each)

Final Project – 20%

Mini Projects – 20%

Notes quizzes – 5%

Participation – 5%

Letter grades are determined by the following scale:

93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
69 and below	D*

Absences and Make-up work Policy:

It is the policy of the Indiana Academy that any absence from class is unexcused, except for illness, death in the family, college or school-related activities, and extenuating circumstances. When a student is absent from a class, the instructor reports the student absence to the Faculty Attendance Coordinator in the Office of Academic Affairs. Unless the absence is excused by a school official, it is considered unexcused. The decision as to whether an absence is excused is not determined by the instructor. Although all absences, both excused and unexcused, are tracked within the Office of Academic Affairs, professors of each class are free to use discretion with a student's first three unexcused absences. Four or more unexcused absences in any particular class a student takes will lead to academic and residential consequences to be determined by the Office of Academic Affairs and the Office of Residential Life that may include detention, residential groundings, parent/principal conference, among others. Since much of the work for this class will be done online or in groups, late work and make up work should not be much of an issue. If you and/or your group need an extension you must contact me as early in advance of the deadline as you can to arrange that. If you will be missing a test you must contact me as soon as you know you will be missing it and schedule a time for you to take the test with me. **In the event of an unexcused absence missed homework assignments, quizzes, test, etc. will NOT be accepted for credit** (except when missed work would fail the student). Make-up quizzes, exams, etc. generally are not taken during class time.

Other policies:

- Laptops/cell phones/tablets/other internet devices will be helpful in class for some activities and simulations. When you use your laptop please keep the volume turned off, and use it exclusively for class related things. This means no email, Facebook, Twitter, games, etc. While on the device in class do not hide toolbars; keep all items you are working on visible on the screen and available for teacher inspection. Keep the internet device turned off and closed during tests and quizzes. You are expected to bring your graphing calculator to class EVERY DAY, it will be absolutely necessary.
- Any and all work on tests, quizzes and projects MUST be your own!

Academic Integrity

I support and abide by the academic integrity policy as set forth in the Student Handbook. While you are encouraged to work together in this course often, here are a few examples of behavior subject to review under the Academic Integrity policy:

- Copying someone's work and turning it in as one's own
- The use of aids or other materials on quizzes and exams without expressed permission
- The use of calculators when explicitly asked not to do so
- Copying another person's work or answers on a quiz or exam

Commitment to Inclusion

Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge and through university resources found at <http://cms.bsui.edu/campuslife/multiculturalcenter>.

The teacher reserves the right to change this syllabus as situations arise or add to it as needed.