

Lindsey Wilson College

MATH2403 M01 Experimental Statistics
Spring 2017

Instructor: Sam Su

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Office Hours: MWF 8:30-9:20 10:30-11:20 2:30-3:00
TR 8:30-10:50 others by appointment

Lecture Time: MWF 11:30 am - 12:20 pm **Classroom:** Fugitte 118 **Credit Hours:** 3

Texts and Materials

OpenIntro Statistics, 3rd edition by Diez, Barr and Cetinkaya-Rundel

OpenIntro Statistics data

Textbook and data can both be found at <https://www.openintro.org/stat/textbook.php>

Google Spreadsheet

Microsoft Excel

Course Description

Emphasis is on modeling and inference. Basic concepts of probability are introduced and built upon in order to understand confidence intervals, and hypothesis tests including, but not limited to, t-tests, chi-square tests, and analysis, correlation and regression. Spreadsheets and a statistical software package will be utilized.

Prerequisite: MATH 1013 or equivalent

Course Objectives: To develop students'

- abilities in statistical modeling;
- abilities to apply and integrate knowledge.

Student Learning Outcomes

- The student will use spreadsheets and statistical software to gain insight and to solve problems.
- The student will perform the necessary calculations to solve quantitative problems.
- The student will convert relative information into appropriate mathematical forms.
- The student will explicitly describe assumptions in data analysis.
- The student will explain information presented in mathematical forms.
- The student will make judgments and draw appropriate conclusions based on the quantitative analysis of data.
- The student will use quantitative information to support an argument or purpose of the work.

Required Assignments:

Homework	20%
Midterm Exams	3@20%=60%
Final Exam	20%

The homework assignments will be accessed through MyOpenMath. Visit www.myopenmath.com and click "register as a new student." Enter your information with the following course ID and enrollment key for this class.

Course ID: 17461 **Enrollment Key:** 1357

Education Program Preparation:

This course is required for content preparation in Secondary and/or Middle Grades with a Single Emphasis Education Programs and helps prepare teacher candidates with the knowledge base for Mathematics required in the Kentucky Core Academic Standards and the College Career Readiness Standards. The Conceptual Framework for the Education Program, “Teacher as Leader for the 21st Century”, is incorporated. The Division of Natural and Behavioral Sciences works with the Education Program in preparing the teacher candidates with the knowledge base required to meet Kentucky Teacher Standard I and the Education Program Student Learning Outcome for Content Knowledge. Teacher candidates will be equipped to teach middle grades and high school students and meet requirements for Unbridled Learning.

Grading Scale:	Percentage	$\geq 93\%$	$\geq 90\%$	$\geq 87\%$	$\geq 83\%$	$\geq 80\%$
	Grade	A	A-	B+	B	B-
	Percentage	$\geq 75\%$	$\geq 70\%$	$\geq 60\%$	$< 60\%$	
	Grade	C+	C	D	F	

All students must complete the course to receive credit. **If a student stops attending class toward the end of the semester and does not take the final examination, a grade of “F” will be given.**

Tentative Course Schedule

- Weeks 1 to 2: Chapter 1 Data and Experiments
- Week 3: Chapter 2 Probability
- Week 4: Bayes’ Theorem
- Weeks 5 to 6: Chapter 3 Distributions
- Weeks 7 to 8: Chapter 4 Foundations for Inference
- Weeks 9 to 10: Chapter 5 Numerical Data
- Weeks 11 to 12: Chapter 6 Categorical Data
- Weeks 13 to 14: Chapter 7 Linear Regression
- Week 15: Chapter 8 Logistic Regression

Important Dates:

- January 16, 2017 - Martin Luther King Day (No classes)
- January 17, 2017 - Advising (No classes)
- January 18, 2017 - Day Classes Begin
- January 24, 2017 - Last Day to Add or Register a Day Class
- March 13, 2017 - Midterm Grades Due (8:00 am)
- March 13-17, 2017 - Spring Break (No classes)
- March 27-31, 2017 - Advising & Registration (Jr & Sr) for Fall 2017
- April 3-7, 2017 - Advising & Registration (Fr & So) for Fall 2017
- April 10, 2017 - Last Day to Drop a Class or Withdraw
- April 14, 2017 - Good Friday Holiday (No classes)
- May 5, 2017 - Last Day of Classes
- May 8-12, 2017 - Final Exams
- May 12, 2017 - Senior Grades Due (11:00 am)
- May 15, 2017 - Final Grades Due (8:00 am)

Attendance: You are expected to be on time and attend all classes (the majority of failing grades are due to lack of attendance). Role will be taken every class meeting and will be entered in Starfish System. Excessive unexcused absences may result in attendance probation, whereby an additional unexcused absence would result in grade of F for the course. In the event a class is missed, the student is responsible for all material and assignments missed. **Exams can only be made up for an excused absence and must be made up within one week of the date of the missed exam.**

Academic Success Center:

The Academic Success Center, located in the Everett Building, offers peer tutoring to aid students in completing class assignments, preparing for exams and improving their understanding of content covered in a particular course. In addition, computers are available for student use.

Students are encouraged to utilize this Center as a resource for improving study strategies and reading techniques. The Center also offers assistance with other academic problems resulting from documented learning disabilities. All services are free of charge to all Lindsey Wilson College students (students with learning disabilities are responsible for providing documentation from an appropriate outside professional source such as a professional evaluation or school IEP). Please contact Maretta Garner, Tutor Coordinator at 384-8037 for further information and assistance.

Writing Center and Mathematics Center:

The Writing Center (located in the Slider Humanities & Fine Arts Building), and the Mathematics Center (located in the Fugitte Science Building) are available for specialized tutoring at no charge to students. Please contact Jared Odd, Writing Center Coordinator, at 384-8209 or Linda Kessler, Math Center Coordinator, at 384-8115 for further information and assistance.

Academic Integrity:

Academic integrity is essential to the existence of an academic community. Every student is responsible for fostering a culture of academic honesty, and for maintaining the integrity and academic reputation of Lindsey Wilson College. Maintaining a culture that supports learning and growth requires that each student make a commitment to the fundamental academic values: honesty, integrity, responsibility, trust, respect for self and others, fairness and justice.

To foster commitment to academic integrity, faculty are asked to require each student to place and sign the following Honor Code on tests, exams and other assignments as appropriate: **On my honor as a student, I have neither given nor received any unauthorized aid on this assignment/exam.**

Violations of the academic integrity policy include cheating, plagiarism or lying about academic matters. Plagiarism is defined as any use of another writer's words, concepts, or sequence of ideas without acknowledging that writer by the use of proper documentation. Not only the direct quotation of another writer's words, but also any paraphrase or summary of another writer's concepts or ideas without documentation is plagiarizing that writer's materials. Academic dishonesty is a profoundly serious offense because it involved an act of fraud that jeopardizes genuine efforts by faculty and students to teach and learn together. It is not tolerated at Lindsey Wilson College.

Students who are determined to have plagiarized an assignment or otherwise cheated in their academic work or examinations may expect an "F" for the activity in question or an "F" for the course, at the discretion of the instructor. All incidents of cheating or plagiarism are reported by the instructor to the Academic Affairs Office along with copies of all relevant materials. Each instance of cheating or plagiarism is counted separately. A student who cheats or plagiarizes in two assignments or tests during the same semester will be deemed guilty of two offenses. If the evidence is unclear, or if a second offense occurs, the VP for Academic Affairs or Associate Dean

will work in cooperation with the Dean of Students to move the student before the campus Judicial Board for review. Violations will ordinarily result in disciplinary suspension or expulsion from the College, depending on the severity of the violation involved. **Note:** The College encourages the use of Safe Assign to detect plagiarized documents.

Questioning a Grade – The Student Academic Complaint Policy:

A student, who wishes to question **an assigned grade, or other academic issue**, should follow the procedure below:

1. Whenever possible, the student shall first go to the faculty member who has assigned the disputed grade. Complaints regarding grades should be made within seven (7) days of receipt of the disputed grade and, if possible, will be decided by the faculty member within seven (7) days of receipt. If the disputed grade is the final grade for the course, “receipt” is defined by when the final grade is posted online by the registrar. (Please refer to the next section for appealing a final grade.)
2. Unless there are extenuating circumstances, the student may, within seven (7) days request in writing a review of such decision by the Chair of the division in which the grade was assigned. Upon receipt of such request, that Chair will direct the faculty member and the student to each submit, within seven (7) days, if possible, a written account of the incident, providing specific information as to the nature of the dispute.
3. Upon receipt of these written accounts, the Chair will meet, if possible, within seven (7) days, with the faculty member and the student in an effort to resolve the dispute and will render his or her decision in writing.
4. If either the student or the faculty member desires to appeal the decision of the Division Chair, the student or faculty member may, within seven (7) days by written request to the chair, ask that the matter be reviewed by a Grade Appeals Panel convened by the Academic Affairs Office.
5. If the disputed grade is assigned at the end of a fall or spring semester and the student and faculty member cannot meet to resolve the issue, the student should contact the faculty member by e-mail within seven (7) days of receipt of the disputed grade. If the issue cannot be resolved by e-mail within the time limit, steps 2, 3 and 4 of the appeal may extend into the beginning of the semester immediately following receipt of the disputed grade by following the timeline above.

A student who wishes to question a **final grade** should follow the procedure below:

1. Confer with the faculty member who assigned the disputed grade.
2. If the disputed grade cannot be resolved, a written request for a grade appeal must be submitted to the Academic Affairs Office before the first day of the semester following the one in which the grade was issued. The written request must include the specific basis for the appeal.
3. The Academic Affairs Office will convene a Grade Appeals Panel, comprised of the Vice President for Academic Affairs, the Associate Academic Dean, and the chair of the academic unit which houses the course for which the grade is appealed. If one of the members is the faculty member who issued the grade, an alternate will be appointed. The student and the faculty member may appear separately before the panel to explain their positions. The hearing is non-adversarial. Neither the faculty member nor the student may be accompanied by other individuals to the meeting of the Grade Appeals Panel. The Grade Appeals Panel will notify the student of its decision, if possible, within seven (7) days of the meeting.

Policy for Verification of Student Identity and Protection of Privacy:

In compliance with the United States Federal Higher Education Opportunity Act (HEOA), Public

Law 110-315, all credit-bearing courses and programs offered through distance learning methods must verify that the student who registers for a distance education course or program is the same student who participates in and competes the course or program and receives academic credit. One or more of the following methods must be used:

- a) A secure login and passcode;
- b) Proctored examinations; and/or
- c) Remote proctoring of one or more examinations using Tegrity or other technologies.

Verification of student identity in distance learning must protect the privacy of student information. Personally identifiable information collected by the College may be used, at the discretion of the institution, as the basis for identity verification. For instance, a student requesting that their learning system password be reset may be asked to provide two or more pieces of information for comparison with data on file. It is a violation of College policy for a student to give his or her password to another student.

Detailed information on privacy may be located at:

<http://www.lindsey.edu/media/319883/Online%20Services%20Privacy%20Policy%204.20.12.pdf>

Institutional Review Board (IRB) Policies:

The Lindsey Wilson College Institutional Review Board (IRB) safeguards the rights and welfare of human participants in research and other research activities. Lindsey Wilson College faculty, staff, and students, which comprise its academic units, and facilities, are subject to the IRB policies. This includes any research for which a research agreement (e.g. MOU) identifies Lindsey Wilson College Institutional Review Board (IRB) as the IRB of record. All student-led human subject research must have a LWC faculty sponsor. All faculty members and students conducting human subject research are required to submit documentation of training on research involving human subjects that has been completed within two years of the onset of the proposed research. Online training is available at <http://php.nihtraining.com/users/login.php>.

Statement on Learning/Physical Disabilities:

Lindsey Wilson College accepts students with learning disabilities and provides reasonable accommodation to help them be successful. Depending on the nature of the disability, some students may need to take a lighter course load and may need more than four years to graduate. Students needing accommodation should apply as early as possible, usually before May 15. Immediately after acceptance, students need to identify and document the nature of their disabilities. It is the responsibility of the student to provide to the College appropriate materials documenting the learning disability, usually a recent high school Individualized Education Program (IEP) and results from testing done by a psychologist, psychiatrist, or qualified, licensed person. The College does not provide assessment services for students who may be learning disabled. Although LWC provides limited personal counseling for all students, the College does not have structured programs available for students with emotional or behavioral disabilities. For more information, call Ben Martin at 270-384-7479.

Final Exams:

Final Exams for day classes are scheduled for the Fall 2016 semester on **December 5-9 and May 8-12** for the Spring 2017 semester. The academic calendar, which contains the schedule for finals, is in the College Catalog and course schedule listing. Please make any necessary flight arrangements **after** the final exam week. **Students will not be permitted to take early finals** unless extenuating circumstances exist. "Extenuating circumstance" means illness, a verified family emergency or participation in officially sponsored travel in support of an event arranged by the College. **Travel arrangements must be made in sufficient time** that tickets may be obtained after

final exams and the semester is officially over. All requests for early finals must be made in person to the Academic Affairs Office.

Email Policy:

All Lindsey Wilson College students are required to communicate with LWC faculty and staff via LWC (Lindsey.edu) email addresses only. Alternative email addresses should not be used when communicating with LWC faculty and staff.

Cell Phone Policy:

Student cell phones will be off during class time unless prior arrangement is made with the instructor.

Adding/Dropping a Course:

Students enrolled in the following courses cannot drop these classes during the semester: READ 0713, 0723, 0733, 0903, 1013 and 1023; STSK 1003; ENGL 0903 and 0904; and ESL 0803, 0804 and 0854.

For undergraduate classes at the Columbia campus, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the advisor and the instructor for each course involved as indicated on the Add/Drop Form. The change must be reported to the Business Office and the Registrar's Office on an Add/Drop Form, which may be obtained from the Registrar's Office. For AIM courses, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Director of the Evening Program. For courses taught at Community sites, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Site Coordinator for the campus. Permission to add courses will not be given after the last date for late registration. Authorization for dropping a course will not be approved after more than 75% of the instructional days for a course are completed, as outlined below:

Course	Deadline	Submitted by the Student to
Columbia undergraduate and graduate full semester courses	Not later than 30 days before the end of the semester	Registrar
AIM courses	By the sixth week of class	Registrar
Courses at Community Campuses	By the third weekend of class	Site Coordinator or the Registrar

If changes are not properly approved and officially reported as stated above, students will receive a grade of F in the courses for which they are officially registered, and they will be charged for all such courses. Students will not receive credit for changed or added courses unless they officially register for those courses.

Syllabus Disclaimer: Instructor reserves the right to change format of, add or remove assignments, quizzes and exams throughout the semester as deemed necessary.