



**Introduction to Probability and Statistics I**  
**MATH 501 - CRN 35972**  
**Spring 2018**

**Instructor:** Dr. Natasha Gerstenschlager  
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**Course Hours:** online  
**Office Hours:** **M 10:00 – 12:00 and W 9:00 – 11:00**  
**OR by appointment or capture**  
*Please note that office hours are subject to change per the instructor's decision. Please check Blackboard for updates regarding any changes to the office hours.*

### **Course Description**

3 Credit Hours – Interpreting and analyzing univariate and bivariate data; probability and sampling distributions; simulation.

**Prerequisite:** Admission to the Master of Arts in Mathematics program or permission of instructor.

### **Required Course Materials**

- “Stats: Data and Models” 4th edition by DeVeaux, Velleman, and Bock ISBN978-0-321-98649-8. You **do not need** MyStatLab with this. ONLY the textbook is required. Previous editions are fine, but we may need to verify that homework problems are the same.
- Scientific Calculator or Graphing Calculator (preferable TI-83 or 84). If you have Microsoft Office, you will also learn how to perform some basic statistical analysis in Excel.
- **Reliable** Internet/Blackboard access – a failure to access email or login to Blackboard is not an excuse to miss deadlines for homework/assignment submissions. You should refer to your WKU email and Blackboard site for announcements regarding class.

### **Learning Outcomes:**

After the completion of this course, students will be able to:

1. Choose the appropriate way to interpret and analyze univariate and bivariate data;

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2. Use knowledge from probability sampling distributions to make education decisions for statistical questions; and
3. Analyze and interpret results of analysis on data using both regression and chi-square approaches.

### Course Requirements:

- **Discussion Boards/Communication (expected):** Even though this is an online course that utilizes an asynchronous environment, your participation is expected and therefore required. Regularly (not necessarily weekly), you will be expected to post comments and/or questions on an assigned Blackboard discussion board (Db). You should consider both the quantity and quality of your posts. A response of “I got the same answer” does qualify as a post, but it will not earn as many points as “I got the same answer, but I solved the problem differently by...” I will be dutifully reading your posts and expect thoughtful posts and comments. For each Db that is required (these will be detailed in your homework document and the deadlines will be in the calendar), you will receive a check mark for completing the discussion on time and as expected (discussed in the homework documents and in the Db). If the student does not meet these expectations, they will not receive a check mark. At the end of the semester, I will review students’ marks and their final grade for the course will be lowered as followed (by percentage points):
  - Missing 0 checks – grade is not lowered
  - Missing 1 check – lowered by 2% points
  - Missing 2 checks – lowered by 4% points
  - Missing 3 checks – lowered by 8% points
  - Missing 4 or more checks – lowered by 16% points

### There are many benefits to online discussion boards. Participation in online discussion boards can ...

- Allow students to **learn** from one another and **share** ideas.
- Allow time for in-depth **reflection**- students have more time to reflect, research & compose their thoughts before participating in the discussion.
- Build **class community** by promoting discussion on course topics.
- Facilitate learning by allowing students to **view & to respond** to the work of others.
- Allow students to **work together** to create a product or to come to an agreement on some topic.
- Develop **writing & critical thinking skills**.
- Encourage **student leadership** by giving them a voice in the classroom.
- (<https://www.edutopia.org/pdfs/stw/edutopia-onlinelearning-mastering-online-discussion-board-facilitation.pdf>) -(Courtesy of Dr. DuCloux)

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- **Homework Quizzes (50%):** Homework quizzes will be problems similar to the suggested homework problems for each chapter. All suggested homework will be listed in the specific Assignment folder in Blackboard. Quizzes will be on Blackboard and may include: fill in the blank, open essay (where you have to conduct a test on your calculator and type in your responses) multiple choice, etc.

You will have a set amount of time to complete the quiz, and there will be one quiz per chapter assigned. You will only be allowed to access the quiz once so make sure you have reliable internet access. If you are afraid of losing your answers, students in the past have recorded their answer separately (in a word doc or by hand), and filled in the responses at the end. This way, if your internet or computer crashes, you have a backup answer sheet that you can send directly to me. Quizzes will be open on Friday mornings and due Sunday evenings by 11:59 PM.

Any students suspected of cheating on the quizzes (or tests) will ***immediately*** receive an F in the course and will be turned in to the appropriate department at WKU. **This is non-negotiable.**

Since these will be based on your suggested homework, I highly encourage you to use the discussion boards for each assignment as a spring board for your questions, thoughts, solution strategies, etc.

**PLEASE**, if you have questions regarding your suggested homework, do the following things:

- Post in the appropriate discussion boards and check regularly for feedback.
  - Email any peers/friends you have in the class.
  - Visit the tutoring center (details at the end of the syllabus).
  - Email/call/visit me. I will **ALWAYS** make time to help you and do my best to help you in a way that is most accessible for you (e.g., email, phone, Adobe Connect, or Skype if you are not local).
- **Exams (50% - 25% each):** You will be given two exams in this course, one midterm and one final exam. The midterm will be a take-home exam that will be uploaded to Blackboard in a similar fashion as homework (you will submit it similarly as you do homework). As a take-home exam, you will be expected to work individually on this assignment. If I suspect students of cheating, they will receive 0 points for the midterm or final. The final exam will be a proctored exam. For the proctored portion of the final exam, you will need to schedule your testing time online with the appropriate testing center and take the test at the scheduled time and place (local to you OR on WKU campus). Once I have the final exam sent to the testing center, they will send you **one** email (from sender will be “DL Testing Center”) that will instruct you on how to register for the test – please **do not delete this email** as they only send it out once. The only

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exceptions will be for students that have written permission from the Office of Student Disability Services. I will be in touch with you more about this process as it gets closer. If you have any questions about distance testing and getting a proctor, you can find information for contacting the DL Testing Center at <https://www.wku.edu/testing/> . Please be aware that some locations will require a proctor fee.

If you would like to take any exam traditionally (live and proctored on campus), you must let me know ASAP. It is perfectly fine to take the exams ‘live,’ but I must know in advance so I can reserve time for you in the testing center or in my office.

Each exam will be announced in advance, and you will be given a “window of opportunity” to complete each one. **There will be no make-up tests and missing a test will result in a zero.** Only under the most extenuating circumstances will a make-up test be considered if the instructor is aware of an issue in advance.

- **Due Dates:** Due dates for all assignments and exams are posted in the calendar for the course located in the “Start Here” section of our Blackboard course.

### **Grading Scale:**

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
Below 60%	F

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## Additional Notes

**Withdrawal and Other Important Dates:** The last day to withdraw from this course without a grade and without paying a fee is **January 29, 2018**. The last day to withdraw from this course or change from credit to audit is **March 9, 2018**. WKU campus is closed **March 12-16** for Spring Break.

**Math Help Lab:** The department of mathematics provides a free help lab located in COHH 2124.

**Learning Center:** The Learning Center (DUC A330) provides free supplemental education programs for all currently enrolled WKU students. For more information, or to schedule a tutoring appointment, please call TLC at (270) 745 - 6254 or log on to their website at [www.wku.edu/tlc](http://www.wku.edu/tlc)

**ADA Statement:** In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at [sarc.connect@wku.edu](mailto:sarc.connect@wku.edu). Please do not request accommodations directly from the professor or instructor without a Faculty Notification Letter (FNL) from The Student Accessibility Resource Center

**Title IX Statement:** Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and Discrimination and Harassment Policy (#0.2040) at [https://wku.edu/policies/hr\\_policies/2040\\_discrimination\\_harassment\\_policy.pdf](https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf).

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

**Academic Dishonesty:** Students who commit any act of academic dishonesty will receive from the instructor a failing grade in the course without possibility of withdrawal. The faculty member will also present the case to the Office of Judicial Affairs for disciplinary sanctions.

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