

**STATISTICS 212 (Sections 10-18)**  
**Introduction to Statistical Methods**

**Instructor:** Mark Lesperance

**Office:** Neill 400B

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**Office Hours:** M, W, F 11:30am – 12:30pm or by appointment

**Labs:** LOCATION NEILL 120

Section	Time	Teaching Assistant	Email Address
10	M 3:10-5:00PM	Xinyu Wang	xwang@math.wsu.edu
11	TU 4:10-6:00PM	Xinyu Wang	xwang@math.wsu.edu
12	W 3:10-5:00PM	Ziyi Chen	zchen@math.wsu.edu
13	W 8:10-10:00AM	Amrina Ferdous	aferdous@math.wsu.edu
14	W 10:10AM-Noon	Emily Woolley	ewoolley@math.wsu.edu
15	F 12:10-2:00PM	Kellan Toman	ktoman@math.wsu.edu
16	TH 4:10-6:00PM	Xinyu Wang	xwang@math.wsu.edu
17	M 10:10AM-Noon	Emily Woolley	ewoolley@math.wsu.edu
18	F 10:10AM-Noon	Emily Woolley	ewoolley@math.wsu.edu

**Web Address:** <http://www.math.wsu.edu/faculty/djohnson/resources/>

**(Note: The above web address is for Dr. Dean Johnson. He is the other lecturer for the course. We will be following the same lesson plan/notes, the same labs and homework assignments so that all sections of the course will be consistent.). I will also post “slide” versions of the note to our section of BlackBoard**

**Text:** *Statistics: Principles and Methods 7<sup>th</sup> Edition*, Johnson and Bhattacharyya, Wiley.

**Course Description:** The course will cover various aspects of statistics. These include data collection, data summarization, exploratory data analysis and some inferential techniques.

**Course features:** Problem solving, critical thinking, wide selection of real world problems, historical perspective, writing assignments and comprehensive computer use.

**Exams (Tests/Final):** There will be two mid-term exams and a comprehensive final this semester. If you must miss an exam, contact me in advance; DO NOT EXPECT MAKE-UP EXAMS. The exam dates will be announced at least two weeks in advance. All exams will be closed book, closed notes. Formula sheets will be allowed.

**Homework and Lab Assignments:** Homework will be assigned throughout the semester. You are expected to attend and complete the required lab assignments. All homework and lab assignments should be STAPLED and answers to problems highlighted or underlined. NO LATE WORK will be accepted. Your lab section number needs to be put on your lab and homework assignments. One homework assignment and one lab assignment will be dropped. If you have difficulty with homework or lab work, the TA or I will be more than happy to work with you.

<b><u>Grading:</u></b>	2 MIDTERM EXAMS	40% (20+20)
	FINAL EXAM (Comprehensive)	25%
	LAB ASSIGNMENTS(Attendance required)	15%
	PROJECT	5%.
	HOMEWORK	<u>15%</u>

A (93%-100%); A- (90%-92.99%); B+ (87%-89.99%); B (83%-86.99%)  
B- (80%-82.99%); C+ (77%-79.99%); C (73%-76.99%); C- (70%-72.99%)  
D+ (66%-69.99%); D (60%-65.99%); F(0%-59.99%)

You can keep track of your grades on BlackBoard ( <http://learn.wsu.edu/> ). If a mistake occurs in entering one of your grades, you must let your TA know no later than two weeks after the entering of the grade.

**Attendance:** You are expected to attend class regularly and to arrive on time. If you miss class, it is your responsibility to find out assignments, notes, etc. Absence due to a conference, field trip or athletic team meet will have to be notified in writing, in advance to the instructor.

**Honor Code:** You are expected to follow the code of conduct that befits a WSU student. Using unfair means for assignments or exams will be referred to the Office of Student affairs.

**Disability Accomodation Policy: Students with Disabilities:** Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.

**Safety and Emergency Notification:** Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (<http://safetyplan.wsu.edu/>) and visit the Office of Emergency Management web site (<http://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

**Math Learning Center:** Successful students make use of available resources, so don't struggle when help is just a few steps away! We want you to succeed, we're here for you, and we have FREE tutoring available in the Math Learning Center (Cleveland 130) and the computing lab, Thompson Hall (Room 1). Tutoring begins January 12<sup>th</sup>.  
<http://www.math.wsu.edu/studyhalls/welcome.php>

**Some Comments:**

1. Bring a calculator to class EVERYDAY. You will need it for your in-class assignments.
2. Bring a flash drive to LAB. You will need it to store data.
3. Bring your class notes to the LAB. You will need formulae and information discussed in class for the LAB.
4. Come prepared to the classes and LAB.
5. If you are having difficulty with material in class, come and talk to me as soon as possible. I will be more than happy to work with you.
6. Do not hesitate to ask questions in class.
7. For your notebook, I suggest using a three-ring binder as opposed to a spiral notebook.
8. Come to class and participate.
9. Do not talk with a neighbor while I am lecturing.
10. If you will have to leave class early, please sit in the back close to the door.
11. Do not work on material for another class while I am lecturing.

The following is a *projected* schedule for topics in this class. It is a tentative schedule and is liable to change.

**Tentative Schedule of topics:**

Week 1-3 :	Introduction Data Collection (experiments, observational studies, and sample surveys) Concepts of population, sample, variable Graphical representation of data, Mean, Median, Mode Variance, Range, Standard Deviation Correrlation and Regression
Week 4-5 :	Probability Event, Sample Space, Experiment, Rules of Probability Normal Distribution Sampling Distribution of Sample Mean, Central Limit Theorem
<b>Exam 1</b>	<b>Monday, Feb 23<sup>rd</sup> 5:45pm-7:45pm</b>
Week 6-12 :	Inference for $\mu$ (population mean) and $\pi$ (population proportion) Interval estimation of $\mu, \pi$ Sample Size estimation for estimating $\mu$ Hypothesis Test for $\mu, p$ -values Power Calculations t-distribution
<b>Exam 2</b>	<b>Monday, Apr 6<sup>th</sup> 5:45pm-7:45pm</b>
Week 13-14 :	Inference for $\mu_1 - \mu_2$ Using independent samples (Pooled t test) Using Dependent samples (Paired t test)
Week 15 :	Categorical Data - Inference for Categorical Data Hypothesis Test for $\pi$ Hypothesis Test for $\pi_1 - \pi_2$ Chi-Square Goodness of Fit Test, Chi-Square Test of Independence Project due
Week 16 :	Analysis of Variance, Review for Final
<b>FINAL EXAM</b>	<b>Tuesday, May 5<sup>th</sup> 7:00 pm - 9:00 pm</b>