

Stat 216-801 (formerly STAT 216-81): Introduction to Statistics (4 credits)**Location and Meeting Times:** Online**Office Hours:** Monday and Tuesday 10:00 a.m. – 12:00 p.m. (noon) or by appointment**Instructor Information :** Dr. Mark Jacobson

Office: LA – 836

MSUB email: mjacobson@msubillings.eduD2L email: mark.jacobson@billings.desire2learn.comWebsite: www.msubillings.edu/mathfaculty/mjacobson/

Voice: 406-657-2203

Course Goals and Purpose:

This course is intended as a first course in statistics for students who have not necessarily studied calculus and to introduce students in a variety of disciplines to the basic techniques of statistics. The emphasis is on understanding how to use statistics to address real problems. The goal is to provide students with a survey of standard statistical techniques and to help them obtain an understanding of the major idea that statistics has to offer. Upon successful completion of the course, students should be able to:

1. Explore statistical sampling and its techniques,
2. Understand bias, variability, etc. of a statistic,
3. Display data graphically using histograms, frequency distributions, pie charts, stem-and-leaf plots, box plots, etc,
4. Summarize data numerically using mean, mode, median, range, variance, standard deviation, quartiles, etc,
5. Study randomness and probability including counting techniques, conditional probability, independent and dependent events, mutually exclusive and non-mutually exclusive events, etc,
6. Study discrete distributions, including the Uniform and Binomial distributions,
7. Investigate continuous distributions, including the Normal and Standard Normal distributions: z scores, proportions, percentiles, etc,
8. Compute and interpret confidence intervals including margin of error,
9. Perform and interpret hypothesis tests including type I and II errors,
10. Perform T tests and Z tests,
11. Investigate and explore linear correlation and regression.

Text: Statistics, 13th edition by McClave and Sincich , bundled with Pearson MyStatLab access code, and study pack.

Prerequisite: Math 095

Grading Scale:

<u>Percentage</u>	<u>Grade</u>
90-100 %	A
80-89 %	B
70-79 %	C
60-69 %	D
Below 60 %	F

Assessment:

<u>Item</u>	<u>Percentage</u>
MyStatLab Exam1	17 %
MyStatLab Exam2	17 %
MyStatLab Exam3	17 %
MyStatLab Exam4	17 %
MyStatLab Homework (ch2-ch11)	22%
Project	5%
<u>D2L Participation in Discussions</u>	<u>5 %</u>
Total	100 %

IMPORTANT: If you will be out of town for sports or work or whatever and you see that a deadline is coming, you **MUST** consult with the instructor to determine if you can take the exam before you leave. You must plan your schedule. You will be held responsible for taking your exams on or before the deadlines set for the four exams.

Registration to Pearson MyStatLab: You will access the internet homework and exams at Pearson MyStatLab by first registering at the following site: <http://pearsonmylabandmastering.com>.

Click on the **Register** button on the right-hand side and follow the directions. Make sure you install the required software plug-ins during this process.

- The **Student Access Code** is contained in your bundled package.
- The **Course ID** for this course is available in the **Student Registration Handout**
- The school choice is: **MONTANA STATE UNIV – BILLINGS**.
- Make sure you aware of the system requirements for **Pearson MyStatLab**; these are located at <http://www.pearsonmylabandmastering.com/northamerica/mystatlab/system-requirements/>

Note:

1. If you have only the textbook, you can purchase a Student Access Code online in the registration process. (see **Student Registration Handout**)
2. You must use your name (as appeared in the MSUB system) in the registration process. If you already have an account with a different name in the Pearson MyStatLab website, you must inform me before the final exam. Otherwise you will receive an “F” grade for the course.
3. **If you have MyStatLab technical problems go to the following website:**
<https://support.pearson.com/getsupport/s/> .

Homework: All homework will be taken at the above Pearson MyStatLab website (except for the project and D2L discussions). In order to access homework, follow these steps

- Visit Pearson MyStatLab at <http://www.pearsonmylabandmastering.com/northamerica/>
- Click on the **Sign In** button located on the right-hand-side.
- Enter your **User Name** and **Password**.
- Click on the **STAT 216-81_81E Introduction to Statistics-Fall 2019** link located on the left-hand-side.
- Click on the **Homework and Exams** button located on the left-hand-side.
- Click on the appropriate Homework Chapter link located under the Assignment.

Note: These graded homework problems can be taken an unlimited number of times before the due date. Your work is saved automatically when you leave the homework site.

Exams: Exams will be available online in Pearson MyStatLab. Click on the **Quizzes and Tests** button located on the left-hand-side to access exams.

Here are some items to be aware of as you take exams:

1. Exams can be taken during the window in your calendar. Each exam will consist of around 35-50 short answers, multiple choice and T/F questions.
2. Make sure your Internet Security Level is set to Medium (or Lower). This will enable you to take exams. To check your level in Internet Explorer browser, do the following: Click on Tools (upper right-hand side), click on Internet Options, click on Security, set to Medium (or Lower), click on Apply, and click on OK.
3. You will have 3 hours to complete an exam.
4. You can only take it ONCE in ONE sitting, so set aside a good time with all your materials close by.
5. It is open book, manuals, notes, and calculator. Perhaps do a RAM clear on your calculator before beginning the exams.
6. **Important:** Do not try to open other/more windows in your computer while taking the EXAM. If you try to open more windows, exam may be closed and submitted automatically
7. **Click on the Submit button** in the lower right-hand corner when you are finished with the ENTIRE Exam. Do not submit the exam before answering all the questions.
8. You can review your exam results after the due date for the particular exam.

Topics covered in STAT-216-801	
EXAM 1	Chapter 1 (All) Chapter 2 (2.1 – 2.6) Chapter 3 (3.1 – 3.6)
EXAM 2	Chapter 4 (4.1 – 4.4) Chapter 5 (5.1 – 5.4)
EXAM 3	Chapter 6 (6.1-6.3) Chapter 7 (7.1-7.5) Chapter 8 (8.1 – 8.6)
EXAM 4	Chapter 9 (9.1, 9.2, 9.3, and 9.5 first part only) Chapter 11 (11.1, 11.2, and 11.5)

STAT 216, Fall 2019 Detailed Calendar
Mark your personal calendars for these deadlines and
DO NOT miss them!!

Order ↑	Ch.	Assignment Name	Category	Assigned	Start	Due	Actions
1	2	Ch2	●	✓	09/04/19	09/30/19	-- Select -- ▾
2	3	Ch3	●	✓	09/04/19 12:01am	09/30/19	-- Select -- ▾
3	1-3	Exam 1	◆	✓	09/27/19 12:01am	09/30/19	-- Select -- ▾
4	4	Ch4	●	✓	09/27/19 12:01am	10/21/19	-- Select -- ▾
			●	✓	12:01am		-- Select -- ▾
5	5	Ch5	●	✓	09/27/19 12:01am	10/21/19	-- Select -- ▾
6	4	Exam 2	◆	✓	10/18/19 12:01am	10/21/19	-- Select -- ▾
7	6	Ch6	●	✓	10/18/19 12:01am	11/18/19	-- Select -- ▾
8	7	Ch7	●	✓	10/18/19 12:01am	11/18/19	-- Select -- ▾
9	8	Ch8	●	✓	10/18/19 12:01am	11/18/19	-- Select -- ▾
10	1	Exam 3	◆	✓	11/15/19 12:01am	11/18/19	-- Select -- ▾
11	9	Ch9	●	✓	11/15/19 12:01am	12/12/19	-- Select -- ▾
12	11	Ch11	●	✓	11/15/19 12:01am	12/12/19	-- Select -- ▾
13	1	Exam 4	◆	✓	12/06/19 12:01am	12/12/19	-- Select -- ▾
14	O-9, 11	D2L Discussions (Offline)	▲				-- Select -- ▾
15	O-14, SCP, STV	Project (Offline)	▲				-- Select -- ▾

This course (STAT 216-81_81E Introduction to Statistics-Fall 2019) is based on McClave: Statistics, 13e

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Note:

- You have to complete homework and Exams between the corresponding starting date and due date. For example, Chapter 4 homework will be open on 9/27/2019 and closed on 10/21/2019. You have to do your homework during this period.
- Generally, homework problems are easier and straight forward than the exam problems. Hence doing only homework problems is not sufficient to get a good grade in exams. You are supposed to attempt problems in the textbook even though they are not required. I will assign problems and post the answers of some of the problems (which are more important

to your exams) from the textbook. Make sure you understand the concepts and techniques used in these problems.

Discussions in D2L: There will be discussion questions posted in D2L. You are expected to actively participate in these discussions. This will be a place for the class to learn collectively from each other. Please follow the directions in D2L regarding discussions. There will be discussion questions posted every two weeks. You should post your opinion as well as reply to at least one other student's discussion.

Project: You will be provided with a project related to data analysis for nursing/allied health. Project guidelines will be posted in D2L after the Exam 1.

Sample Tests and Quizzes in MyStatLab: It is not required to take sample tests or quizzes. Sample tests and quizzes can be taken for practice or to build your study plan. Sample tests and quizzes do not affect your grade.

Study plan in MyStatLab: Study plan exercises, Chapter pre-tests, Chapter post-tests and Chapter review Quizzes **will not** be countered for the final grade. You can use these questions for your practice. It is not mandatory to complete these questions. Only Exams (1 to 4), chapter homework assignments, and discussion participation will be counted for your final grade.

Gradebook in MyStatLab: Your homework and exam grades can be viewed by clicking on the **GRADEBOOK** button, located below the **QUIZZES & TESTS** button.

Calendar in MyStatLab: Click on the **Calendar** button located on the left-hand-side. All the important dates for the homework and exams are shown here. **DO NOT** miss deadlines.

ALL work must be completed no later than the DUE DATES.

Incomplete: No Incompletes will be given unless requirements as per student handbook are met. No extra credit is given in this class.

Tutoring:

FOR UNIVERSITY CAMPUS

Academic Support Center (ASC)

University Campus ASC lab is located in the Student Union Building (SUB) and is open Monday thru Thursday 8:00 a.m. to 9:00 p.m., Friday 8:00 a.m. to 5:00 p.m. Online tutoring hours for math will be Sunday thru Thursday from 8:00 p.m. to 10:00 p.m. City College Academic Support Center (ASC) lab is open Monday-Friday from 8:00 a.m. to 5:00 p.m. The ASC is located on the north side of the commons in room A038 (old campus store). **Tutoring will be available by appointment for most subjects.** You can access the appointment system on our homepage at msubillings.edu/asc or directly at asc.msubillings.edu. Please inquire within about subject and tutor availability or ask Katy Williams at 406-657-2032.

Drop-In tutoring is offered Mon-Fri from 9am-3pm at University Campus in WRITING and MATH (088, 098, 105, 108, 111, 114, 121, 143) is offered Mon-Thur from 9am-9pm and Fri from 9am-3pm.

Important URL s:

Frequently Asked Questions:

<http://www.msubillings.edu/msubonline/faq.htm>

Important Dates:

http://msubillings.edu/newscsl/Fall_2018-Spring_2019.pdf

Financial Aid and Scholarship: Dropping a course, getting an incomplete, or getting a Failing/lower grade may affect your scholarship or your financial aid. For more information, go to:

<http://www.msubillings.edu/finaid/>

Memo from Disability Support Services

Students with Disabilities:

MSU Billings is committed to providing equal access. If you anticipate barriers related to the format or requirements of this course, please meet with me so that we can discuss ways to ensure your full participation in the course. If you determine that disability-related accommodations are necessary, please contact Disability Support Services (657-2283; located in the College of Education, Room 135). We can then plan how best to coordinate your accommodations.

Further Information

- 1.** If you live in or near Billings and if you can't figure out your calculator, the Academic Student Center could possibly help you (it is located in the old Computer Annex just south of the SUB). Also, the ASC has web pages posted (below) with excellent and easy to follow instructions for various models of calculators. The site is located at:
<http://www.msubillings.edu/asc/resources/math/xgraphingCalculators.htm>
- 2.** This course is not designed to be easy. Rather, it is designed to be academically rigorous, intellectually challenging, and fair. It will require time and energy to read and reflect on the text and homework and discussions.
- 3.** Some of you will face personal situations during this semester that will rightfully demand more attention than this class, and will not allow you to be mentally in class. Whenever possible, accommodations that are fair to you will be made if I am informed in a timely manner **before deadlines**.
- 4.** I expect you to stay current in your readings and other assignments. You should plan on spending time each and every day studying these concepts. Some assignments will require more of your time than others.

- 5.** As college students you should be very familiar with the requirements for academic integrity. Although discussing ideas from the class with others is both productive and encouraged, I expect answers on your exams to be your own independent work. Students who cheat on class assessment work will meet with disciplinary action, including but not limited to a failing grade in the course. For more information check the *Code of Student Conduct* at http://www.msubillings.edu/vcsa/code_of_conduct/part_9.htm#b
- 6.** An Incomplete (grade) is given only when students have been 'in attendance' for at least three-fourths of the semester but have been prevented by circumstances beyond their control from completing all the requirements of the course. The student must provide adequate evidence to the instructor as to the reason why they were unable to complete the requirements of the course. An Incomplete must be made up within one calendar year or the grade will revert to an F. In general, to make up an incomplete for this class, the student must retake the course and will be required to submit all material required by the new instructor of a regular student. No extra credit is offered.
- 7.** Students with disabilities, whether physical learning, or psychological, who believe that they may need accommodations in this class, are encouraged to contact Disability Support Services (DSS) as soon as possible to ensure that such accommodations are implemented in a timely fashion. Meet with DSS staff to verify our eligibility for any classroom accommodations and for academic assistance related to your disability.