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MATH 116 Intro Statistics

Drew Dagg

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"Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write."
– H.G. Wells (1866 – 1946), science fiction writer

**Purpose of this Document:**
This syllabus is designed to help students get a snapshot of the course and help guide them toward success in the course. Students who follow the guidelines are more likely to be successful in the course. The professor is providing a recipe for success.

**Course Description:**
Intro Statistics is designed to make students familiar with: descriptive statistics, basic probability, normal distribution, confidence intervals, regression, correlation, hypothesis tests, and analysis of categorical data. (Xavier Catalog)

**Course Schedule:**
Any relevant dates or information will be posted to Canvas to facilitate real-time updates.

**Detail-Oriented Philosophy:**
Part of the benefit of learning a technical subject such as Mathematics and Statistics is the completion of activities to exacting specifications. This skill is frequently called upon in the course of life and career. Therefore, this course will be very detail-oriented and require extreme attention be paid to course activities, deliverables, deadlines, etc.

**Time Requirement:**
**This course will require a lot of time outside of class.** Be prepared for a busy semester. Those with tight schedules may consider taking the course when time is more plentiful. Typical college study time is assumed: at least 4-6 hours per week outside of class for a 3 credit hour course in a regular term. Some students may need more. Summer semester may require more than 4-6 hours per week outside of class.

**Canvas Course Site(canvas.xavier.edu):**
Many of the course materials are available on the canvas course website. Material release is timed to present materials to students on the appropriate date. Canvas is linked with the registration system so student enrollment in the course canvas website should be automatic, if a student is enrolled in the course with the registrar. If you do not gain access to the course canvas website automatically please contact the XU IT help desk at 513-745-4357. The IT folks should be able to help resolve any IT issues. Once enrolled students may go to canvas.xavier.edu and navigate to this course. This location is the official class repository the professor will use for posting relevant course materials. So in addition to email for important info, this will be the official class online location until the end of the semester. Please contact the XU IT help desk or consult the online help documentation if you have trouble accessing the course.

**REQUIRED MATERIALS**

**Required Textbook and Student Access To Connect Plus:**
Intro Statistics, 4th edition by DeVeaux, Velleman, Bock with the MyLab access code. The XU bookstore has the necessary book and MyLab supplement bundled together. The NKU Campus Books bookstore has the required package for about $136, last I checked.

The student access code is needed for online course activities. Please register yourself into MyLab only once. Please register into MyLab using your name exactly as it appears in the university registration system. You may use any email address you wish for registering in MyLab. The professor will provide the course registration info once students have obtained their access codes. I will provide this at the second class.

**Required Calculator:**
Any calculator (but not cell phone or tablet devices) may be used in the course during class, homework, and exams. An inexpensive basic calculator including square root can be used. No cell phones, electronic tablets, etc are allowed during class, homework, or exams. Check with the professor at least a week in advance of an exam to make sure your calculator is permitted.

Required Flash Drive:
A large USB flash drive suitable for video storage. Capacity will depend on the specific format a student chooses during production of their statistics tutorial project.

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Optimal Grade:
The recommended choices for optimal student success are to attend class, submit all assignments including Homework and the Tutorial, and take all Exams. For students who complete all activities grade weights would be those shown in bold in the above table.

Participation Policy:
Participating in class is one of the most important factors to student success. Usually exam grades reflect attendance. Texting, facebooking, etc is very unwelcomed when class is in session. Those using laptops for class notes or other class things will be required to sit in the front row of class, unless an exception is discussed. This policy is to designed to maintain excellence in the classroom. Also, an interactive class is an enjoyable class.

Positive Class Influence:
A positive learning environment is important. Students who display positive contributions to class dynamics such as participation, attendance, courtesy, suggestiveness, helpfulness, and a good attitude may receive a bump up to their final grade. Unwelcomed disruptions will not be accepted. Everyone needs a positive learning environment to succeed.

Exams:
As a benefit to the student, one 4” x 6” sized note card can be used during exams. Students may put any information desired on both sides of the card. Sharing of note cards during the exam will not be permitted. Remember this card is for your benefit.

If an exam is paper-and-pencil, it will be returned to students for inspection, to check answers, and to make notes. Questions regarding individual issues such as your score, disagreement with an answer, and the like should be discussed after class when possible or during office hours. After inspection, exams will be returned to the professor for archiving. Students who wish to re-inspect or otherwise discuss their exam at a later time are encouraged to contact the professor to setup a time or meet after class when possible. Grade concerns should be submitted in writing. As a rule it is advised that any concerns be discussed as early as possible after the initial inspection. Remember exams are a learning activity so get the most out of these experiences – before AND after the exam.

Since the Final Exam will be comprehensive, students are encouraged to make notes during their in-semester exam inspection. In particular, students are encouraged to note any weaknesses in their performance so they can be addressed before the Final Exam.
If an exam is given online (proctored or not), the above inspection information does not apply. Students may review their exam any time after the exam is completed.

Choice of How Many Exams:
Each student may take all exams, or just the final exam. **No makeup in-semester exams will be given.** If a student misses an in-semester exam (Exam 1 or 2), the final grading weight is merely adjusted as shown in the grading table. If you miss an in-semester exam then the percentage (weight) of the final grade for the missed exam will be added to the Final Exam percentage (weight). For example, if a student misses Exam 1, then that student’s Final Exam weight will consist of the Final Exam weight plus the Exam 1 weight. It is highly recommended that students not miss any exams. In the event a student misses an in-semester exam, it is advised that the student make sure they stay current with the material on the missed exam. The Final Exam is mandatory. If a student misses the Final Exam a zero will be assigned unless a compelling excuse (e.g. hospitalization, immediate family death) is emailed to the professor in a timely manner. Since the Final Exam is such an important milestone in the course, documentation and potentially verification will be required in consideration of the excuse to take a make-up Final Exam.

**Homework:**
Although homework will not be part of the final grade, homework due dates will likely be strict so please plan ahead. Students who do homework perform better on exams, and consequently in the course. Students who skip homework rarely pass the course.

It is advised when completing online MyLab assignments to keep an audit trail of how problems are solved so later during study you can repeat the same steps without having to reinvent the wheel. Write down the solutions to online problems so you can study them later. Some students print the online homework assignments and keep an accompanying written log of how they solve the problems.

Statistics Video Tutorial Project:
See the assignment document that will be posted to canvas for details. You will turn in your presentation via a recorded tutorial submitted on flash drive, along with other required components. As a fair trade for an easy chunk of the final grade, there will be strict requirements. This assignment helps most students perform better on the Final Exam.

Most students receive high grades on this assignment since they do such a good job on it. An assignment document will be posted to canvas so all expectations are delineated *a priori.*

Turning-in Items Due:
Anything due in hardcopy form, such as the Project, can be turned-in on or before the due date either in class or to a staff member in the Math and Computer Science Department, who in turn will put it in my mailbox. In class is preferred. Items are due at the beginning of class that day. An item delivered to the Math Department before the beginning of class on the due date will not be late if these instructions are followed: 1) ask the staff member who accepts the assignment to stamp (or write on) the date and time of delivery, and 2) the student must send me an email ASAP alerting me that the assignment has been dropped off. **No materials/assignments are accepted via email.** Please plan ahead so items are not late. Turning in assignments early will always prevent something from coming up at the last minute that prevents on-time turn-in.

**In the Classroom:**
Your input and participation is crucial to the learning experience. Therefore, attendance and participation in class is required regardless of your mastery of the material. Attendance data will be collected regularly to give the professor information as to student motivation. Cell phones/pagers/mp3s/whatever are distracting and should be turned off and put away (see Participation Policy above). Audio or video recording devices are not permitted (any exception must be discussed with the professor). If class is held in a computer-equipped room, PC workstations are for use only when class activities require their use. Participation also includes the professor’s observation of the student’s effort put into the course. You are expected to be self-disciplined and actively participating in the course. Discussion in class including questions and answers are crucial to the learning process. The professor encourages questions, answers, and comments. Remember to be reasonable. That is, some esoteric questions or discussions are best left for after class, etc. Individual issues should be discussed outside of class. Some questions are best guided to student discovery, so the professor will sometimes guide the student to a resource instead of simply answering a question. This maximizes persistent-learning-effect.

**Textbook:**
The textbook is the main reference students should use by reading the relevant sections related to the material being presented. The majority of this reading will be done outside of class. Students who obtain the hardcopy textbook should bring it to class each time. There may be activities during class that will require use of the book.

**Tutoring:**
Tutoring for this course may be available through the Math Tutoring Lab (http://www.xavier.edu/mathematics/Math-Lab.cfm) and the Learning Assistance Center (http://www.xavier.edu/lac/Peer-Tutoring.cfm).

**Academic Honesty:**
Students are referred to the relevant Xavier University document concerning academic honesty. Students in this course who commit a violation such as exam cheating, forging attendance, etc will be subject to one or more of the University sanctions listed in these documents. The professor will likely impose the most severe penalty available since academic honesty is one of the most important qualities a student should demonstrate.

In this course, all outside of class assignments (except exams) may be done in groups/pairs/whatever as long as each student is mastering the material. This collaborative style of learning works well and reduces performance anxiety which sometimes leads to students taking desperate measures such as cheating. Therefore, the professor has designed the course to minimize the possibility for students to feel the need to be anything other than honest.

**Misc:**
The professor is happy to meet with students outside of class to go over their questions.

Athletes and those students who wish to request excused absence due to a University-sanctioned activity or religious holiday may have requirements such as notifying the professor in advance before missing a class or due date. Potentially, students not notifying the professor in advance (when dates are available in advance) may lose the opportunity to make up work missed or turned in. Any students in which this may apply are encouraged to investigate the specifics and let me know of any relevant policies/procedures. The professor will gladly guide these students and make efforts to ensure their success in the course.

If you miss class or otherwise need to get notes, a handout, etc please confer with a classmate. This is always preferred since they can give you "the skinny" from a peer's perspective.

Reminder: For your security and in case of loss, always keep a backup copy of anything submitted. If the professor loses the flash drive it will gladly be replaced.

For courses where online homework is used, it is recommended that homework be printed for your own use so you have a record of solution steps, to bring to class for possible workshops, or in case the homework system is down, etc.

**This course will require a lot of time outside of class.** Be prepared for a busy semester. Those with tight schedules may consider taking the course when time is more plentiful.

Please contact the XU registrar to verify the last day to withdraw.

Remember the professor is working for your success; if we both work hard you will most likely be successful.

*Note: The professor reserves the right to alter the syllabus if circumstances dictate.*

*It would be appreciated if you could let the professor know if any typos or errors are noticed in this document.*

*Good luck in the course and feel free to ask questions.*