

MAT 211 – Mathematics for Business Analysis

Fall 2023

NOTE: THIS SYLLABUS MAY BE MODIFIED AT ANY TIME BY ANNOUNCEMENTS MADE IN CLASS.

Instructor: Daniel Korytowski	Office: ECA 210
Class Meeting Day: M/W	Class Meeting Time: 4:30pm-5:20pm
SLN: 70882	Email: dkorytow@asu.edu
WebAssign Homework site: http://webassign.net/	ASU Canvas site: https://canvas.asu.edu/
WebAssign Class Key: asu 9811 6701	Office Hours: M/W 3:30-4:20PM F 3:30-4:50PM via Zoom or in person or by appointment

EMAIL is the best way to contact me outside of class.

When e-mailing, include the class you are in (e.g. MAT 211, MWF 10:00 AM). **You should always e-mail directly from your @asu.edu account. If you e-mail from a personal e-mail address, I will not be able to reply.** Check your SPAM folder frequently, as sometimes e-mails I send students are accidentally filtered.

** Note about e-mail: When I send announcements, they will go to your @asu.edu account. You need to check this account regularly. I cannot be responsible for announcements you did not receive because you are using a different account than the one assigned by the university*

Basic Course Info

Materials

- Text: MAT 210/211 Brief Calculus and Mathematics for Business Analysis by Waner and Costenoble, 7th edition. (**optional**)
- WebAssign access (**required**): This comes with the e-book for no additional cost.
- Graphing Calculator (**required**): A graphing calculator is required for this course. If you already have a graphing calculator, you may use it. Examples of highly recommended models are TI 83/84 or Casio 9850GB Plus. Calculators that do symbolic algebra, such as the Casio FX2, Casio 9970 Gs, TI-89, TI-92, or TI-*n*spire CAS **cannot** be used in class or during an exam.
- There will be a Canvas site for announcements, grade documentation and learning resources.
- Additional Videos can be found at <https://mathcast.la.asu.edu:446/>
- Additional Videos specific for this course can be found at https://mathcast.la.asu.edu:446/course_details/MAT211

Prerequisites: MAT 210, MAT 251, MAT 265, or MAT 270 with C or better.

Tentative Lecture Schedule:

Week	Section and Description	Comments
Aug 21	4.1: Review : Systems of Linear Equations (Algebraic/Graphing) 6.1/6.2: Linear Programming 15.1: Functions of Several Variables	First day of classes: Aug 17
Aug 28	15.1: Functions of Several Variables 15.2: Partial Derivatives 15.3: Maxima and Minima	
Sept 4	15.3: Maxima and Minima (Cont.) 15.4: Constrained Optimization: Substitution and Lagrange	Labor Day: Sept 4
Sept 11	15.4: Constrained Optimization: Substitution and Lagrange (Cont.) Appendix: Extreme Value Theorem	
Sept 18	Appendix: Extreme Value Theorem (Cont.) Review Exam #1 (Wednesday, 09/20)	
Sept 25	5.1/5.2: Matrices and Matrix Multiplication 4.2: Gauss-Jordan Row Reduction	
Oct 2	5.3/3.6 (pdf): Matrix Inversion and Determinants. 3.7 (pdf): Cramer's Rule	
Oct 9	7.1/7.2: Sets and Cardinality 7.3/7.4: Counting Methods (Addition and Multiplication Principles)	Fall Break: Oct. 9-10
Oct 16	7.3/7.4: Counting Methods (Addition and Multiplication Principles) (Cont.) 8.1/8.2/8.3: Basic Probability (Probability Distribution)	
Oct 23	8.4: More Probability (Probability and Counting Techniques) Review Exam #2 (Wednesday, 10/25)	
Oct 30	8.5: Conditional Probability and Independence 8.6: Bayes Theorem	Withdrawal Deadline: Nov 1
Nov 6	9.1/P.1: Random Variables (Discrete/Continuous) 9.2: Binomial Distribution	Veterans Day: Nov. 10
Nov 13	9.3: Measures of Central Tendency 9.4: Measures of Dispersion (Variance and Standard Deviation)	
Nov 20	Appendix P.2 (pdf): Probability Density Functions 9.5: Normal Distribution	Thanksgiving: Nov 23-24
Nov 27	Appendix P.3 (pdf): Mean, Variance, and Standard Deviation Review	
Dec 4	Exam #3	Exam #3: Dec 07, 7:10-9:00pm (Room: TBD)

Homework, Quizzes & Projects:

- Students are expected to read relevant sections of the textbook prior to attending class.
- Quizzes and projects are given at the discretion of the instructor and frequently reflect material that has recently been discussed in class. To encourage attendance, instructors will **not** give makeup quizzes.
- Instructors may assign both written homework and online homework. Online homework will be submitted through WebAssign (Cengage), an online homework system. Students may use their own computers or those in any one of the ASU computer labs. Students may also work together but must submit their own assignments. WebAssign can be accessed from the link in Canvas.
- NO extensions on homework will be allowed without any verifiable documented emergencies. However, you can get a ONE-day automatic extension through the WebAssign system within 4 days the homework section is past due, though you would receive a 10% penalty meaning the highest grade you could earn would be 90%.
- If you have used WebAssign for the first time in Spring 2023, either in MAT 210 or MAT 211, you can log in with your previously created Cengage account. When you paid last semester, you purchased access for at least one year, so you will not need to pay that again. You just need your new Class Key provided below to access the assignments for this course.
- If you are a first time WebAssign user, you will need to create a Cengage account and purchase an Access Code. You can purchase the Access Code online or in the bookstore in a bundle with the hardcopy of the text. Note that the hardcopy is not required.

To access your class assignments, you need to use **CLASS KEY:** asu 9811 6701

Midterm Exam: There will be two midterm exams given throughout the semester, each one covering the material since the last exam. **No test grade will be dropped from your grade record.** The best possible preparation for them is regular attendance and completion of assigned homework. These exams will be done **in class**. **Your calculator memory may be viewed during any exam and will be cleared if anything suspicious is written therein.** The instructor has the right to regard any suspicious material in your calculator memory as CHEATING. Makeup exams are given at the discretion of the instructor and only in the case of verified medical or another emergency, which **must be documented**. The instructor must be **notified before the test is given**.

All internet-capable devices such as computers, phones and smart-watches, etc., are to be turned off and made inaccessible for the duration of an exam. Any student who accesses or has in sight one of these devices for any reason will result in an automatic score of 0 for the exam and possibly further disciplinary measures.

Final Exam: There will not be a cumulative final for this course. Instead, Exam #3 will be held during the MAT 211 common final exam time on **TH, 12/07 from 7:10-9:00 PM**. The place of the final exam will be announced later in the semester. Make-up final exams will **NOT** be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans. The final exam schedule will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the college in which the course is offered.

1. Religious conflict.
2. The student has more than three ASU exams scheduled on the same day as the math final
3. There is a time conflict between the math final and another final exam.

Attendance Policy:

Attendance and participation in class activities is an essential part of the learning process, and students are expected to attend class regularly. Some absences are, however, unavoidable. Excused absences for classes will be given without penalty to the grade in the case of

- (1) a university-sanctioned event [ACD 304-02];
- (2) religious holidays [ACD 304-04];
- (3) work performed in the line-of-duty according [SSM 201-18]; and
- (4) illness, quarantine or self-isolation related to illness as documented by a health professional.

Anticipated absences for university-sanctioned events, religious holidays, or line-of-duty activity should be communicated to the instructor by **email** during the first week of class. Your instructor will work with you on alternative and reasonable arrangements for any time missed.

Absences for illness, quarantine or self-isolation related to illness should be documented by a health professional and communicated to the instructor as soon as possible by **email**.

Excused absences do not relieve students from responsibility for any part of the course work required during the period of absence. Your instructor will provide accommodations that may include participation in classes remotely, access to a recorded lecture, and make-up work.

Classroom behavior:

Make sure you arrive on time for class. Excessive tardiness will be subject to sanctions. **Under no circumstances should you allow your cell phone to ring during class.** Any disruptive behavior, which includes ringing cell phones, listening to your mp3/iPod player, text messaging, constant talking, eating food noisily, reading a newspaper will not be tolerated. The use of laptops (unless for lecture note taking), cell phones, MP3, IPOD, etc. are strictly prohibited during class. Students who engage in disruptive classroom behavior may be subject to various sanctions. The procedures for initiating a disruptive behavior withdrawal can be found at <https://clas.asu.edu/resources/disruptive-behavior>.

Exam	Dates	Sections/Chapters Covered
Exam #1 (Wk 6)	Wednesday, Sept. 20	4.1, 6.1, 6.2, 15.1-15.4 and EVT
Exam #2 (Wk 11)	Wednesday, Oct, 25	3.6, 3.7, 4.2, 5.1-5.3, 7.1-7.4 and 8.1-8.4
Exam #3 (Finals Week)	Thurs, Dec. 07, 7:10-9:00 pm (Room: TBD)	8.5, 8.6, 9.1-9.5, P.1-P.3

Grading Criteria:

Point Allocation	
Exam #1	25%
Exam #2	25%
Exam #3	25%
Homework	15%
Quizzes	10%
Total	100%

Grading scale: A+ = [97,100]; A = [93,97]; A- = [90,93];
 B+ = [87,90]; B = [83,87]; B- = [80,83];
 C+ = [77,80]; C = [70,77];
 D = [60,70];
 E = [0,60)

There will be NO curve: e.g., a final course grade of 69.9 results in a letter grade of D.

Students Resources:

Tutor Center: The Math Tutor Center offers Free tutoring. You must have a valid ASU "Sun Card" in order to be admitted. For information visit <https://tutoring.asu.edu/student-services/tutoring> . For additional information, including online tutoring, visit <https://tutoring.asu.edu/tutor-search>

Disabilities: If you have any disability that may hinder your performance, please notify your instructor as soon as possible. See the last page of this syllabus for more information.

Extra credit: If you come to class and do the homework, your grade will take care of itself. No individual requests for extra credit projects will be considered.

Campus Network or WEBASSIGN Outage: Due dates are set by your instructor. As such it is your responsibility to complete the assigned homework in the allocated time ahead of the deadline as the server could be down for an unknown period of time!

Departmental and University Policies and Procedures

Course Withdrawal Deadline	Nov. 1, 2023
Complete Withdrawal Deadline	Dec. 1, 2023

Course Withdrawal: A student may withdraw from a course with a grade of **W** during the withdrawal period. The instructor's signature is not required. It is a student's responsibility to verify that they have in fact withdrawn from a class. **After Nov. 2, however, you may not withdraw from this course unless you withdraw from every ASU course you are enrolled in this semester.**

Instructor-Initiated Drop: At the instructor's discretion, any student who has not attended class during the first two weeks of classes may be administratively dropped from the course. However, students should be aware that non-attendance will NOT automatically result in their being dropped from the course. **Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status.**

The grade of Incomplete: A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents the student who is doing **acceptable work** from completing a **small** percentage of the course requirements.

The student must provide written documentation and be passing the class at the time to receive an Incomplete. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed. *The Dean of the student's college must approve any exceptions to these rules.*

Final Exam Make-up Policy: The final exam schedule listed in the Schedule of Classes will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the college in which the course is offered. Under this schedule, if a conflict occurs, or a student has more than three exams on one day, the instructors may be consulted about an individual schedule adjustment necessary, the matter may be pursued further with the appropriate dean(s). This procedure applies to conflicts among any combination of Downtown Phoenix campus, Tempe campus, Polytechnic campus, West campus, and/or off campus class.

Students with Disabilities

Disability Accommodations: Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the ASU Student Accessibility and Inclusive Learning Services (SAIL) is required. Disability information is confidential.

Accommodating students with disabilities

Students who feel they will need disability accommodations in this class but have not registered with the ASU Student Accessibility and Inclusive Learning Services (SAIL) should contact SAIL immediately. The SAIL Tempe office is located on the first floor of the Matthews Center Building. SAIL staff can also be reached at: (480) 965-1234 (V) or (480) 965-9000 (TTY). For additional information, visit: www.asu.edu/studentaffairs/ed/drc.

Honor Policy: The highest standards of academic integrity are expected of all students. The failure of any student to meet these standards may result in suspension or expulsion from the University or other sanctions as specified in the University Student Academic Integrity Policy. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities.

Academic Integrity: Academic honesty is expected of all students in all examinations, papers, and laboratory work, academic transactions and records. The possible sanctions include, but are not limited

to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academic-integrity>

Student Conduct Statement: Students are required to adhere to the behavior standards listed in Arizona Board of Regents Policy Manual Chapter V – Campus and Student Affairs: Code of Conduct ([http://www.abor.asu.edu/1 the regents/policymanual/chap5/5Section C.pdf](http://www.abor.asu.edu/1%20the%20regents/policymanual/chap5/5Section%20C.pdf)), ACD 125: Computer, Internet, and Electronic Communications (<http://www.asu.edu/aad/manuals/acd/acd125.html>), and the ASU Student Academic Integrity Policy (<http://www.asu.edu/studentaffairs/studentlife/srr/index.htm>).

Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. An instructor may withdraw a student from a course when the student's behavior disrupts the educational process under USI 201-10 <http://www.asu.edu/aad/manuals/usi/usi201-10.html>.

Policy against Threatening Behavior

All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

Reporting Title IX violations:

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

Policy on Sexual Discrimination

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits [discrimination](#), [harassment](#), and [retaliation](#) by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eooss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately.

Copyrighted materials

Students are required to refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

The School of Mathematical and Statistical Sciences encourages faculty to address and refer to students by their preferred name and gender pronoun. If your preferred name is different than what appears on the class roster, or you would like to be addressed using a specific pronoun, please let your instructor know.

NOTE: THIS SYLLABUS (INCLUDING THE DATES OF TESTS) MAY BE MODIFIED AT ANY TIME BY ANNOUNCEMENTS MADE IN CLASS. It is the student responsibility to attend class regularly and to make note of any changes. The Instructor also reserves the right to create class policies in regard to homework due date, etc.

Agreement of Terms: By remaining registered in the course through drop/add period, you agree to all terms and policies set forth in the syllabus.