The University of Iowa
The College of Liberal Arts and Sciences
Spring, 2024

Title: Quantitative Reasoning for Business, sections: **MATH:1350:0AAA** and **MATH:1350:0BBB**
Course meeting time: MWF, 1:30 – 2:20, MWF 100 PH (MATH:1350:0AAA),
2:30 – 3:20, MWF 100 PH (MATH:1350:0BBB)

Department of Mathematics: https://math.uiowa.edu/

Course ICON site: To access the course site, log into Iowa Courses Online (ICON) https://icon.uiowa.edu/index.shtml using your Hawk ID and password.

Course Home
The College of Liberal Arts and Sciences (CLAS) is the home of this course, and CLAS governs the add and drop deadlines, the "second-grade only" option (SGO), academic misconduct policies, and other undergraduate policies and procedures. Other UI colleges may have different policies.

Instructor: Dr. Sergii Bezuglyi
Office location: 325D MLH (MacLean Hall)
Student drop-in hours: MWF 3:30 – 4:30 pm or by appointment (over Zoom or in-person)
E-mail: : MATH-1350@uiowa.edu or sergii-bezuglyi@uiowa.edu

Course email: The students should use the course email: MATH-1350@uiowa.edu for any questions about the course. Questions related to the activity in a discussion section (homework assignments, quizzes, make-ups, etc.) should be addressed to your TA.

DEO: **Dr**. **Ryan Kinser,** 14 MacLean Hall, ryan-kinser@uiowa.edu

Description of the Course
This course is primarily taught to the students planning their major in business. The course begins with simple algebraic facts and finishes with elements of differential calculus. Numerous applications of mathematical models in economics, management, statistics, environmental sciences, etc. use such basic concepts of mathematics as functions, limits, and derivatives. The students in this course learn the properties of polynomials and rational functions, exponential and logarithmic functions, and find their limits and derivatives. Applications of derivatives help to solve many interesting problems in business and real life. Knowledge of crucial facts from financial mathematics (simple and compounding interest, annuity) is a big advantage for people dealing with the money market.

Learning Objectives
To learn algebraic techniques and modeling, together with quantitative methods for treating problems that arise in management, finance, and economic sciences.

Textbook:
The required textbook for this course is:

- Title: *Mathematics with Applications in the Management, Natural, and Social Sciences, 13th Edition*.
- ISBN: 9780137892365
- Authors: Lial, Hungerford, Holcomb, & Mullins
- Publisher: Pearson
- Year: 2022

Material to be covered: The Chapters are from the text above.

- Review of Chapter 1: Algebra and Equations.
- Chapter 2: Graphs, lines and inequalities.
- Chapter 3: Functions and graphs.
- Chapter 4: Exponential and logarithmic functions.
- Chapter 5 (5.1, 5.2): Simple interest and compound interest.
- Chapter 11: Differential Calculus
- Chapter 12 (12.1 - 12.3): Local extrema, second derivatives and optimization.

Lectures
The lectures in this course will be delivered in person, see the information about the time and place above. My lecture notes will be posted on ICON.
Top Hat Platform will be used for almost every lecture.

Grading:
With **criterion-referenced grading**, students receive letter grades based on the quality of their work in relation to the criteria defined by the instructor against an absolute scale that is provided for each assignment or the course. Minimum cutoffs for each course letter grade are listed below. You should not view this as a fixed, predetermined grade scale for determining final grades, but rather as a guaranteed minimum scale. Cutoffs may be lowered at the discretion of the instructor. Plus/minus grading will be used.

Grade distribution: Final grades will be assigned on a curve, which will be determined after the final examination. The final grades will not be lower than the following:

A+	A	A-		B+	B	B-		C+	C	C-		D		F
>99	>94	>90		>85	>80	>75		>68	>62	>55		50 - 55		< 50

Homework: 15%, assigned weekly beginning the second week
Quizzes: 12%, assigned weekly on Thursday's discussion session (except the exam weeks, first and last weeks of the semester)
Midterm 1: 20%, Wednesday, February 28, 6:30 – 8:00 pm
Midterm 2: 20%, Wednesday, April 3, 6:30 – 8:00 pm
Final Exam: 25%, to be announced by Registrar
Class Response (Attendance) (over Top Hat): **8%,** every lecture beginning the second week

Getting help:

- **The mathematics tutorial lab, 125 (MacLean Hall):**

The Math Lab is a **free drop-in** tutorial service staffed by Teaching Assistants from the Department of Mathematics. Check out the web page https://math.uiowa.edu/math-tutorial-lab for hours. Regular Math Lab hours will start in the second week of classes. Your TA and other course TAs will be available at various times in the Math Lab. The Lab provides one of the best ways of getting personalized help. Practice exams and quizzes are also available in the Lab. From time-to-time tutorials on special topics may be offered as well. It is strongly recommended that you make use of this service.

- **Your SI Leader and SI Sessions**

SI Leader for MATH:1350 is **Kathleen Ripley**. The SI session times are below:

Quantitative Reasoning for Business	Sundays 3:00-3:50 PM
MATH:1350	Mondays 6:30-7:20 PM
SI Leader: Katie	Wednesdays 3:30-4:20 PM

SI sessions will begin on Sunday, January 21st and all sessions will be offered in the Academic Resource Center (ARC), which is located on the ground floor of the Iowa Memorial Union (IMU). We will not offer SI sessions during spring break (Sunday, March10 – Sunday, March 17), or during finals week (Sunday, May 5 – Friday, May 10).

- **Tutor Iowa:** https://tutor.uiowa.edu/
- **24/7 Pearson Tech support**

https://support.pearson.com/getsupport/s/

Course Policies:

Academic Honesty and Misconduct
All students in CLAS courses are expected to abide by the CLAS Code of Academic Honesty. Undergraduate academic misconduct must be reported by instructors to CLAS according to these procedures. Graduate academic misconduct must be reported to the Graduate College according to Section F of the Graduate College Manual.

Class attendance: Regular and prompt attendance is mandatory for this course. Since a substantial percentage of your grade will be based on class attendance and participation (8%),

it is in your interest to attend every class and to arrive with significant contributions to make to discussions.

Rules on Student Collaboration: In this class, students are allowed to talk with others about homework. However, do not share your written work with others or ask others to see their completed assignments since both are considered academic misconduct. Students are responsible for understanding this policy; if you have questions, ask for clarification.

Participation in class discussions: Students are strongly encouraged to ask questions and participate in class discussions.

Homework assignments will be announced weekly (beginning the second week) on ICON.

Quizzes: There will be weekly quizzes given on Thursdays approximately every week (excluding the weeks of the exams), consisting of problems similar to those assigned as homework. Taking all quizzes and the three exams (two midterms and final) is mandatory. The *two lowest quiz scores will be dropped* at the end of the semester.

Class Response Questions: Attending and participating in class will increase your chances of doing well in the course. During the lectures, you will be using your Top Hat account to indicate you are attending the lecture and to *answer questions* over the lecture material. You will earn points for each question you answered. Correct answers will bring extra points. Attendance and answers to the Top Hat questions will contribute up to 8% of your final grade.

Make-up

University regulations require that students be allowed to make up examinations that have been missed due to illness, religious holy days, military service obligations (including service-related medical appointments), or other unavoidable circumstances or University-sponsored activities. Students with UI-authorized activities must discuss their absences with the instructor as soon as possible. Religious obligations must be communicated within the first three weeks of classes.

Student Complaints

Students with a complaint about a grade or a related matter should first discuss the situation with the instructor and/or the course supervisor (if applicable), and finally with the Director or Chair of the school, department, or program offering the course.

Undergraduate students should contact CLAS Undergraduate Programs for support when the matter is not resolved at the previous level. Graduate students should contact the CLAS Associate Dean for Graduate Education and Outreach and Engagement when additional support is needed.

Drop Deadline for this Course

You may drop an individual course before the deadline; after this deadline you will need collegiate approval. You can look up the drop deadline for this course here. When you drop a course, a "W" will appear on your transcript. The mark of "W" is a neutral mark that does not affect your GPA. Directions for adding or dropping a course and other registration changes can

be found on the Registrar's website. Undergraduate students can find policies on dropping and withdrawing here.

Date and Time of the Final Exam
The final examination date and time will be announced by the Registrar generally by the fifth week of classes and it will be announced on the course ICON site once it is known. **Do not plan your end of the semester travel plans until the final exam schedule is made public. It is your responsibility to know the date, time, and place of the final exam.** According to Registrar's final exam policy, students **have a maximum of two weeks after the announced final exam schedule** to request a change if an exam conflict exists or if a student has more than two exams in one day (see the policy here).

Communication: UI Email
Students are responsible for all official correspondences sent to their UI email address (uiowa.edu) and must use this address for any communication with instructors or staff in the UI community.

Mental Health Resources and Student Support
CLAS encourages instructors to draw students' attention to the expanded language on mental health resources in this template at the beginning of the course and frequently throughout the semester. Students are encouraged to be mindful of their mental health and seek help as a preventive measure or if feeling overwhelmed and/or struggling to meet course expectations. Students are encouraged to talk to their instructor for assistance with specific class-related concerns. For additional support and counseling, students are encouraged to contact University Counseling Service (UCS). Information about UCS, including resources and how to schedule an appointment, can be found at counseling.uiowa.edu. Find out more about UI mental health services at mentalhealth.uiowa.edu.

University Policies

Accommodations for Students with Disabilities
Basic Needs and Support for Students
Classroom Expectations
Free Speech and Expression
Military Service Obligations
Non-discrimination
Religious Holy Days
Sexual Harassment/Misconduct and Supportive Measures
Sharing of Class Recordings