MATH 1090.090 Business Algebra Online (3 credits)
Fall 2017

Instructor: Laura Strube   Office: LCB 317
Email: strube.laura@utah.edu   Office Phone: 801-585-1635
(Canvas mail preferred)   (email or Canvas mail is better)

COMMUNICATION: You may contact the instructor by e-mail or through Canvas-mail. When e-mailing your instructor, please use the format "MATH1090: *Your Subject*" in the subject line. All announcements for the course will either be posted in quiz format on the Canvas website (these are graded) or sent by Canvas-mail.

OFFICE HOURS: I will schedule one in-person office hour and one online office hour each week. No appointment is necessary to come to office hours. I will also be working in the Mathematics Tutoring Center for an hour each week. Any changes to this schedule will be announced through canvas.

- Online Office Hour: **Time TBA** in Canvas Conferences
- In-Person Office Hour: **Time TBA** in LCB 317
- Mathematics Tutoring Center Hour: **Time TBA** (Basement between JWB and LCB) http://www.math.utah.edu/ugrad/mathcenter.html

Participating in an online office hour is similar to making a Skype call while watching a math video. To attend, go to conferences in Canvas. You need speakers. If you have a microphone, you can ask questions; if not you can type them.

ALTERNATIVE MEETINGS: If the times above do not work with your schedule, contact me about setting up an online meeting or office hour at an alternative time. I am happy to schedule alternate meeting times, particularly on Friday afternoons or mornings.

TEXTBOOK: *Business Algebra, 2nd edition - Revised Printing* by Kelly MacArthur
ebook ISBN: 978-1-46520-869-9; print book ISBN: 978-1-4652-4098-9. In this course we will be using the E-book version available on WebAssign.
See: www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf for purchasing information and comments

COURSE PREREQUISITES: At least a C grade in Math1010 (Intermediate Algebra) OR Math1050 (College Algebra) OR in Math1080 (Precalculus) OR an Accuplacer score of 60 on the College Level Math (CLM) test OR at least an ACT Math score of 23 OR at least SAT Math score of 540.

Important Note: The mathematics department DOES enforce prerequisites for all undergraduate courses. If you were able to register for this class based on your enrollment in the prerequisite course last semester and you did not receive the minimum grade in that course to enter this class, then you will be dropped from this class on Friday of the first week of classes. If you are in this situation, it is in your best interest to drop yourself from this class and enroll in a class for which you have the prerequisites before you are forcibly dropped.

WEEKLY WORKLOAD: This is an online course, but still an intense course. According to the University of Utah, a 3-unit course should have about 3 hours of lecture and 6 hours of outside study/homework time. This means that our online course, will take the average student about 9 hours per week. Some students will be able to get by on less, and some students will need more.

Each week, we cover specific sections. You can choose when you work on the material in the week, keeping your objective and topic goals in mind, but you can't complete the course at your own pace.

IS ONLINE RIGHT FOR YOU?: Before committing to this course, consider whether the online format matches your learning style. More information about this topic can be found in the announcement quiz *A:Online?* on the Canvas page for this course.

ONLINE MATERIALS: Materials for this course can be found on TWO websites:

- **Canvas** (https://utah.instructure.com/):
  It is a good idea to save this address, so that you can get to Canvas without going through CIS. Usually once or twice a term, CIS goes down, so the alternative access is useful.

- **WebAssign**:
  This is the website that accompanies the textbook. It has the weekly homework assignments, the Personal Study Plan, and additional videos and tutorials. As soon as the semester officially starts, you can create a WebAssign account and access our course site. The document *CreatingWebAssignAccount.pdf* on the Canvas page for this course contains instructions for setting up your account.

  There is a free 14-day trial for WebAssign. After this, you must either pay to use this site, or purchase a textbook which comes with an access code for WebAssign. To learn more about WebAssign, go to announcement quiz *A: WebAssign* on the Canvas page for this course.

TECHNOLOGY: You will absolutely need a scientific calculator for the last quarter of this course and for the final exam and may find it helpful for some of the homework assignments. After the semester has started I will post a list of calculators that will be allowed during quizzes and exams on the course Canvas page. If you would like to plan ahead, I recommend the following scientific calculators:

- TI-30XS Multiview

- TI-34 Multiview

Some students like following calculator (but in my experience this is more challenging for students to use):

- TI-30XS

You may choose to use a graphing calculator as you study, but they will not be allowed on quizzes or exams.

COURSE DESCRIPTION: Functions and graphs, polynomial and rational functions, matrices, Gaussian elimination, exponential and logarithmic functions, growth, periodic and continuously compounded interest, arithmetic and geometric sequences, annuities and loans.

Expected Learning Outcomes: Upon successful completion of this course, a student should be able to:

1. Graph and analyze quadratic, exponential and logarithmic functions; solve quadratic, exponential and logarithmic equations.

2. Understand what a mathematical function is and know how to use linear, quadratic, logarithmic and exponential functions to model real world examples.

3. Know how to solve a system of linear or quadratic equations that arise in business applications.

4. Find solutions to linear programming problems, to maximize a function over a geometric region.

5. Perform simple matrix algebra computations.

6. Use matrices to solve systems of linear equations.

7. Understand what an inverse function is and be able to find the inverse function, when it exists.

8. Distinguish between simple and compound interest situations.

9. Calculate future and present value of annuities, and know when to use which formula for the life application.

10. Compute an amortization schedule and loan payments, such as automobile or mortgage payments.

HELP AND RESOURCES: Contacting me by my e-mail, coming into office hours, or set-ting up an appointment is the first way to get help. I am happy to talk about individual problems, mathematical concepts, or help you make a study/learning plan. Please seek help early in the term.

If you have a question about a WebAssign problem, you can contact me through WebAssign (good if it's a formatting question) or look/post in the Canvas discussion board (good for content questions/ calculation issues).

You can also get tutoring through the following:

- Math Tutoring Center (drop-in tutoring, computer lab, group tutoring). This is free to all students. It is in the underground passage between JWB and LCB, Room 155. See http://www.math.utah.edu/ugrad/mathcenter.htmlLinks to an external site. for hours.

- Private Tutoring: University Tutoring Services, 330 SSB (they offer inexpensive tutor-ing). There is also a list of tutors at the Math Department office in JWB 233.

- Computer Lab: also in the T. Benny Rushing Mathematics Student Center, Room 155C. See http://www.math.utah.edu/ugrad/lab.htmlLinks to an external site.

BREAKDOWN OF COURSE: Each week, we cover specific sections. You can choose when you work on the material in the week (as long as you meet deadlines), but you can't complete the course at your own pace. There will be weekly online homework and 6, roughly biweekly, hardcopy quizzes that you will print, complete, and scan/submit. All materials can be found in the modules on Canvas, except the weekly homework, which is found at WebAssign. There will be two midterms and a final, which you will take at the testing center or with a proctor. Here is a more detailed description of both graded and non-graded aspects of this course:

- **Reading Announcements on Canvas**: Course documents and announcements are given in quiz format and have a short quiz about the content at the end. These "quizzes" begin with "A:..." Completing these is worth 2% of your grade. Suggested due dates are given (generally Thursday evenings), but these can be completed at any time before the common final.

- **Reading from your text book**: Use the E-book on webassign or see http://www.math.utah.edu/schedule/bookInfo/Math1090BookInfo.pdf for other op-tions.

- **Watching the video lectures**: They are available through the Cavas modules or in both streamable and downloadable versions at: http://www.math.utah.edu/lectures/math1090.html. (It's good to save this address somewhere else, in case Canvas is down)

- **Solving Problems**: Working through problems helps you understand and master the material. In WebAssign, there are two types of assignments. For each section, there are:

  - *Practice Assignments*: These assignments are for you to get familiar with the concepts. They have many help features; they are not graded, but you must earn a score of 80% or better to begin the corresponding graded assignment. You can work on them at any time in the semester.
  - *Graded Assignments* (worth 14%): These assignments are a transition between the practice assignments and quizzes/exams and have fewer help features/allowed submissions than the practice assignments. These are due on Tuesday nights at 11:00 pm or a few minutes later. The lowest three homework scores will be dropped at the end of the semester.
  - Additional practice problems and worked examples can be found in your textbook.

- **Quizzes**. These will be roughly biweekly and designed to take 40 min. Quizzes will be available for download and printing Monday morning at 12:01 am and are due by 11:59 pm on Tuesday. Any change to this will be stated in the weekly announcements. Quizzes are worth 14% of the grade; the lowest quiz score will be dropped in the grade calculation at the end of the semester.

  After you complete your quiz you will scan each page, compile the pages into one document, and upload it as a .pdf. Free scanners are available at the Marriott Library and there are several apps with scanning functions as well. (I use the free andriod app "Fast Scanner" which allows the user to scan multipage documents. There are equivalent apps for apple products.) You will be responsible for verifying that the scanned .pdf of your quiz is a single document, legible, and of good quality. JPG and other image files will not be accepted.

  On Wednesday mornings, the quiz solutions will be unlocked on Canvas.

  <div align="center">

  Late quizzes will not be accepted

  </div>

  More information about the quizzes can be found in the document *A: Quizzes* on Canvas.

- **Exams**: There are two proctored midterm exams. Each will be 90 minutes long and worth 20% of your grade. You must schedule your exams ahead of time, using the *Schedule Exams* link on the top left of the Canvas course page. Exams will be administered at the Uonline testing center (in the Marriott Library), at a satellite testing center (in Sandy) or if you are out of area, with a proctor that you set up and register with Uonline. You will be allowed to use a scientific calculator from the approved list on these exams. More information about exams, including how to set up a proctor, can be found here *A: Exams*.

  IMPORTANT: You are responsible for scheduling exams with a testing center/proctor in a timely manner. Because you have a 6-day window to take the midterms you will not be allowed to take a midterm late except for a severe extenuating circumstance. Waiting until the last minute to schedule an exam and discovering that the testing center is fully booked is not a severe extenuating circumstance.

- **Final Exam**: This course has a common final with the other MATH1090 sections. The exam is comprehensive and worth 30% of your grade. It will be held on:

<div align="center">

Friday, 15 December 3:30 - 5:30pm
(Location TBA)

</div>

  If you are unable to take the exam at the scheduled time you have the option of taking it early. If you chose this option you must contact your instructor by **Wednesday, 1 November 2017** at the latest and will need to schedule this at a testing center or with a proctor through the "Schedule Exams" link like you do for the midterms. The dates available for early testing are:

<div align="center">

Saturday, 9 December 2017 - Tuesday, 12 December 2017

</div>

  You will need a scientific calculator for this exam. A list of approved calculators will be provided on Canvas after the start of the semester.

- **Extra Credit**: Extra credit can be earned for participating in online discussions (by asking or answering questions with significant mathematical content) or by spotting errors in course materials. See *A: Extra Credit* for details.

RECOMMENDED APPROACH: This is how I would recommend you approach the course to maximize your learning:

Wednesday - Sunday

1. Review your quiz from the previous week and be sure you understand your mistakes. Schedule a time to talk to me about any of the concepts you do not understand.

2. Look at the Weekly Announcement and Week at a Glance

3. Watch the videos, read the textbook, and work on textbook and WebAssign problems

4. Post in Canvas discussions any questions you have, from content to homework

5. Participate in discussions initiated by other students

Monday-Tuesday

1. Finish online homework. Completing homework assignments by Monday morning will set you up well to take exams early in their available windows on exam weeks.

2. Print,take and submit the hardcopy quiz on quiz weeks.

DATES: Note that for the sake of this course, our weeks will begin on Wednesday mornings and end on Tuesday evenings. The exception is week 01 which will be: Monday, 21 August 2017 - Tuesday 29 August 2017, and week 14 which will be: Wednesday, 29 November 2017 - Thursday, 7 December 2017.

Always Available:

- WebAssign Practice Assignments; (required, but not graded) available through the day before the common final

Weekly Due Dates:

- WebAssign Graded Assignment - due Tuesdays 11:00 pm

- Roughly Biweekly Quizzes - due Tuesdays at 11:59 pm

    - Quiz 1: Sun 09/03* - Tue 09/05
      (*Early availability to accommodate for the Labor Day holiday)
    - Quiz 2: Mon 09/18 - Tue 09/19
    - Quiz 3: Mon 10/16 - Tue 10/17
    - Quiz 4: Mon 10/30 - Tue 10/31
    - Quiz 5: Mon 11/20 - Tue 11/21
    - Quiz 6: Mon 12/04 - Tue 12/05

- Exams (Schedule ahead to take the exams at times between the dates below):

    - Exam 1: (Week 5/6) Mon 9/25 - Sat 9/30
    - Exam 2: (Week 10/11) Mon 11/6 - Sat 11/11 *

  * The Marriott Library will be unavailable as a testing center on November 11th

- Common Final Exam: **Friday, 15 December 3:30 - 5:30pm** (Location TBA)
  (or alternatively Sat 12/9, Mon 12/11, or Tue 12/12)

Other dates:

- Drop date: Fri 9/1

- Withdraw/audit date: Fri 10/20

GRADING: The grades will be calculated as follows:

Announcement Quizzes	2%
Weekly WebAssign Homework	14%
Biweekly Quizzes	14%
Midterm 1	20%
Midterm 2	20%
Final	30%

Late assignments and quizzes will not be accepted

To allow for unforseen circumstances and personal responsibilities the lowest 3 WebAssign scores and the lowest quiz score will be dropped at the end of the term.

GRADING SCALE: It is unlikely that the grades for this course will be curved beyond the available extra credit. The standard grade distribution is as follows:

A	93 - 100
A-	90 - 92
B+	87 - 89
B	83 - 86
B-	80 - 82
C+	77 - 79
C	73 - 76
C-	70 - 72
D+	67 - 69
D	63 - 66
D-	60 - 62
E	0 - 59

BORDERLINE GRADES:
Borderline grades are those grades within .5% of the nearest letter grade. These grades will be rounded up. Put simply, course grades are rounded to the nearest whole number.

EARLY POLICY
- You can start WebAssign homework early at any time.
- Quizzes and exams must be taken during the scheduled windows.
- The final exam is expected to be taken on-campus in a yet-to-be-announced classroom on **Friday, December 15th from 3:30 - 5:30 pm**. However, you are allowed to schedule the final exam early between Dec 9-11 either at the Uonline testing center or with a proctor if you are off-campus. If you plan to take the exam early you must contact your instructor by **November 1st** at the latest. More info as the final exam approaches.

LATE POLICY:

Unexpected events arise - you get sick, called into work, have computer or internet problems, get back late from a trip, etc. In order to provide you with a buffer and have a policy that is manageable to implement for a large class, the three lowest HW and one lowest quiz score will be dropped (in the last week of the term).

There are no late or make-up quizzes. If you have technical problems uploading your completed quizzes, you need to contact me on Monday the day before the quiz is due.. (That is why it is advised to work on assignments early.)

Practice WebAssign assignments are open for the entire term.

Because you have a one week window to complete the graded homework, there will be no extensions on these assignments.

Since you have a 6-day window in which to take your midterm exams (but they must be scheduled in advance), only for severely extenuating circumstances would a midterm ever be allowed to be taken late (so don't count on it). Waiting until the last minute to schedule an exam and discovering that the testing center is fully booked is not a severe extenuating circumstance.

If there is a BIG, UNANTICIPATED circumstance beyond your control that prevents you from taking a quiz or exam, or completing your homework, please contact me in a timely manner with documentation by a third party (for example, a Dr.'s note) and we will discuss options.

CENTER FOR DISABILITY AND ACCESS
The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

STUDENT RESPONSIBILITIES:
All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php

This syllabus is subject to change and may be revised at the instructor's discretion. All such changes will be made in writing on the course Canvas page and students will be notified via email. Students are responsible for any syllabus revisions communicated in this manner.