

### Math 120: Foundations of Mathematics for Non-STEM Majors COURSE SYLLABUS: Spring 2021, 3 semester credit

SPECIAL NOTE: THIS COURSE IS A CO-REQUISITE MODEL COURSE.

ALL STUDENTS MUST ALSO BE ENROLLED IN A SECTION OF MATH 1332 or 1342!!

# **INSTRUCTOR INFORMATION**

 Instructor: Laura Boddicker
 Office Phone: N/A

 University Email Address: Laura.Boddicker@tamuc.edu
 Office Location: Online

 Office Hours: Online
 Office Fax: N/A

 Preferred Form of Communication: Email
 Email

 Communication Response Time: Within 24 hours, unless over a weekend, or holiday

# **COURSE INFORMATION**

## Materials – Textbooks, Readings, Supplementary Readings:

**Text & Supplement:** A textbook is not assigned for this course. All assignments are provided with links to Internet sources and/or document files.

## **Course Description:**

**Foundations of Mathematics for Liberal Arts Majors.** Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. In particular, students who are majoring in fields considered to be in the "liberal arts" (students who will not be continuing in an Algebra-intensive math pathway), and who are not TSI complete, will take this course. Course topics include: Basic algebraic operations, equations and inequalities, polynomials, functions, rational expressions, exponents and radicals, quadratic equations, and graphing. The course helps prepare students for further study at the level of college mathematics, particularly in first year, non-STEM math courses. This course is considered developmental and may not be used to satisfy any mathematics or degree requirements. This course is being used as a co-requisite course to support students in their study at the college level of mathematics, specifically in Contemporary Mathematics or Elementary Statistics. The course is broken down into 4 competencies and 2 projects.

Student Learning Outcomes: Upon successful completion of this course, students will:

- 1. The student will be able to view, interpret, and create graphics, tables, and multiple representations appropriately.
- 2. The student will demonstrate knowledge of arithmetic and basic algebraic concepts such as operations with fractions and decimals, order of operations, and basic set notation.
- 3. The student will be able to accurately interpret and utilize algebraic concepts such as subscripts, summation symbols, and formulas.
- 4. The student will be able to effectively work with radical and rational expressions, particularly within formulas utilized in the college-level course.
- 5. The student will demonstrate a mastery of counting techniques and a sense for the beauty of mathematics in the world around them.
- 6. The student will be able to navigate successfully in the college-level math course

# **COURSE REQUIREMENTS**

# Minimal Technical Skills Needed:

Students must have a minimal amount of technical skills to be successful in this course. Skills needed include, but are not limited to: using the online learning system (D2L) in MyLeo; using Microsoft Word, Excel, and PowerPoint; and the use of email.

#### **Instructional Methods:**

**Instructional Methods**: This course is 100% online. As such, communication and assignment submission is all done electronically. Power points, resources, assignments, and tests are all located within the online course/

Should you have trouble finding anything, please e-mail the instructor to point you in the right direction. While not all discussions and assignments are required, students are encouraged to participate in all activities. Should you find yourself struggling with assignments in the course, please watch videos and complete all reading before e-mailing the instructor to ask for further assistance in comprehending certain subject matter.

Participation in assignments/discussions etc. will help the material be more understandable and. Your participation will directly affect your success in the course. The more hours you spend in the course utilizing provided resources, the more likely you are to succeed in the course.

## Student Responsibilities or Tips for Success in the Course:

Students are encouraged to log-in to the course every 24 hours. While not required, students are encouraged to complete an entire competency every week. This means by week 4 of the 7-week semester, they have attempted to test out of all 4 competencies. This allows the student sufficient time to re-do any failed competency posttests. By the end of week 6 students should have completed both projects.

Students are encouraged to e-mail the professor as they encounter concepts that after reading and utilizing course resources (supplemental documents, Youtube videos, etc.), still do not understand.

Students are encouraged to engage other classmates in discussions or thoughts that pertain to course material. Regular participation and engagement ensures the best chance at successful completion of the course.

## GRADING

Note: All developmental math grades are reported with an "R" in front of them to signify that they are not collegelevel.

RA = 90% -100% RB = 80% - 89.9% RF = 79.9% or Below

Students are required to achieve an 80% or higher on a posttest in each competency and on the project in order to pass the course.

A grade of "B" (RB) or above must be achieved to continue to a college-level stand-alone course such as Math 1332, or 1342 in the next semester. Otherwise, the co-requisite model will be repeated.

#### Assessments:

#### **Pretest and Posttest for Each Module:**

The purpose of the pretests is to provide a baseline understanding of your knowledge in each module.

The posttest is an assessment of your knowledge of the material required for the module. A score of 80% or higher is required on the Posttest to demonstrate competency. If you score less than 80% on any module you will have an opportunity to review the material and re-take the module Posttest. You will have up to three attempts at passing each competency. If you have not passed the module in three attempts, you will receive a letter grade of an F. In order to demonstrate competency, a score of 80% or higher is required.

**Homework:** Exercises will be assigned most class periods. It is extremely important for you to work all exercises in order to be prepared for the exams. Exercises can be accessed through your MyLeo portal in the app for "MyLeo Online (D2L Brightspace)". These exercises are for self-assessment to know that you are understanding the material

for the posttest. There is an answer key to check your work from each exercise. If you want further feedback forward the exercise to the instructor.

**Projects:** You will have two projects in this course. Each project will be based on expanding your knowledge and applying the information you have learned in a more application-based setting. A score of 80% or higher is required on each project.

### **Final Grade Calculation:**

The final grade will be assigned by taking the average of the four passing posttests and the grades of the projects.

# **TECHNOLOGY REQUIREMENTS**

### **Instructor Specific Technology Requirements:**

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can still report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft <sup>®</sup> Edge	Latest	N/A
Microsoft <sup>®</sup> Internet Explorer <sup>®</sup>	N/A	11
Mozilla <sup>®</sup> Firefox <sup>®</sup>	Latest, ESR	N/A
Google <sup>®</sup> Chrome <sup>TM</sup>	Latest	N/A
Apple <sup>®</sup> Safari <sup>®</sup>	Latest	N/A

Device	<b>Operating System</b>	Browser	Supported Browser Version(s)
Android <sup>TM</sup>	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR

- You will need regular access to a computer with a broadband internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more of preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - o Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at the JAVA web site: <a href="http://www.java.com/en/download/manual.jsp">http://www.java.com/en/download/manual.jsp</a>
- Current anti-virus software must be installed and kept up to date
- Running the browser check will ensure your internet browser is supported.
  - Pop-ups are allowed
  - JavaScript is enabled
  - Cookies are enabled
- You will need some additional free software (pug-ins) for enhanced web browsing.
  - Ensure that you download the free versions of the following software:
    - Adobe Reader: <u>https://get.adobe.com/reader/</u>
    - Adobe Flash Player (version 17 or later): <u>https://get.adobe.com/flashplayer/</u>
    - Adobe Shockwave Player: <u>https://get.adobe.com/shockwave/</u>
    - Apple Quick Time: <u>http://www.apple.com/quicktime/download/</u>
- At a minimum you must have Microsoft office 2013, 2010, 2007, or Open Office. Microsoft Office is the standard office productivity software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

# MyLeo Online Learning Management System (LMS):

<u>D2L in MyLeo:</u> All course sections offered by Texas A&M University-Commerce have a corresponding course shell. Below are technical requirements

LMS Requirements: https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support: <u>https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_support.htm</u>

YouSeeU Virtual Classroom Requirements: https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

### Access and Navigation in MyLeo/D2L:

<u>MyLeo Support</u>: You will need your campus-wide ID (CWID) and password to log into your course in D2L. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or <u>helpdesk@tamuc.edu</u>.

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a

computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

### **COMMUNICATION AND SUPPORT**

## **Interaction with Instructor Statement:**

Students will be expected to interact with the instructor(s) in class or via electronic means in an appropriate manner. All instructor contact information is listed on this syllabus and should be used. Please use email to facilitate a quick response.

# **Technical Support:**

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here: https://community.brightspace.com/support/s/contactsupport

### System Maintenance:

Please note that on the 4<sup>th</sup> Sunday of each month there will be System Maintenance which means the system will not be available 12 pm - 6 am CST.

# **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

## **Course Specific Procedures/Policies:**

### **Attendance and Continual Enrollment:**

Math 120 in a non-credited course and each student must receive a "B" (RB) or higher to move on to a stand-alone college-level math course in the next semester, if they do not pass both of the co-requisite math courses this semester. Due to the nature of this course, **attendance is a must to pass this class**. It is expected that you follow the guidelines set forth by the Class Attendance Policy in the current Undergraduate Catalogue. Attendance in this course is participating and doing your work in a timely manner.

Also, all students should be aware that they are NOT allowed to drop a developmental math course, and that they must be continually enrolled in a math course until they have successfully completed their college-level math course. In addition, beginning Fall 2018, the state of Texas is requiring all Institutions of Higher Education to use the "**co-requisite model**" for all developmental courses. Thus, if you are enrolled in this course, you are ALSO enrolled in a college-level math course, for a total of SIX hours of math this semester. Therefore, all students should take this course seriously and make every effort to be in attendance and to be successful on the daily assignments and exams.

Participation from students regularly is encouraged. There will be optional discussions, and assignments that are not required. Students are encouraged to participate as regular exposure to course content will result in a better chance at successful completion of the course.

The only required assignments in this course are the pretests for each competency (there are 4 competencies which means 4 pretests). While pretests are required to pass the course, the grade does not count toward your final grade. A grade of 80% or higher is required on a posttest to test out of each of the 4 competencies. You have 3 attempts to achieve a grade of 80% or higher in each of the 4 competencies. Aside from the test, there are two required course projects that each student is required to participate in.

## **Comments:**

I will do my best to make a quality presentation each class and, in return, I expect that you will do your best to learn the material presented in class and in the text. I know that together, these efforts can contribute significantly to your education in this class.

## **Syllabus Change Policy:**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### **University Specific Procedures:**

### **Student Conduct:**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the <u>Student Guidebook</u> (See link below). All students are expected to exercise self-discipline and respect for the rights of others at all times. Behavioral disruptions that interfere with the business of the "classroom" or with an individual's ability to learn may be referred to the Dean of Students. Courtesy to others is important. That means respecting the opinions of others, and in general, doing your part to make this a positive learning environment for all students.

http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <u>https://www.britannica.com/topic/netiquette</u>

Appropriate classroom behavior is required to attend this class. <u>All cell phones and other such devices must be put on</u> <u>silent or turned off during class</u>. Phones are a distraction for me and the other students in the class. NOTE: THIS INCLUDES BLUETOOTH AND OTHER DEVICES THAT ARE PLACED IN THE EAR. All people will be treated with respect and I will not allow talking that will disrupt my lectures. If disruptions occur during class lectures, you will be asked to leave class and will earn a zero on any applicable grades for that class period. Serial disrupters will be asked dealt with individually, including referral to the Dean of Students. If you are withdrawn from this course as a result of disruptions, you will be withdrawn from school, entirely.

### TAMUC Attendance Policy:

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>. <u>http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx</u>

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99 .R0.01.pdf

## **Academic Integrity:**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13. 99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99. R0.10GraduateStudentAcademicDishonesty.pdf

As stated in the Student Handbook, academic dishonesty in the class will not be tolerated. If any materials or equipment are found to be available to the student at any time which is considered inappropriate by the instructor, the very fact that the materials are inappropriately available to the student is grounds for an accusation of academic dishonesty. The instructor reserves the right to fail the student for the assignment or the course, as well as report the student to the Academic Dean and/or the Dean of Students. They also have the ability to terminate the student's enrollment in the University. The instructor considers this an extremely serious matter. Please make sure you are not in a situation that could be viewed negatively.

I find that a majority of students are honest in doing their school work. However, we must take measures to protect the academic integrity of the classroom. I have a NO TOLERENCE policy for cheating and if you are caught cheating, you will probably fail that portion of the course, as well as possibly the entire course. Cheating in this course is defined as (but not limited to) the following:

- Giving or receiving answers during an exam or quiz.
- Viewing the exam or quiz answers of nearby classmates.
- Having notes/practice work/etc. available during quizzes or major quizzes.
- Possession or access to quiz or major quiz items before the assessment is given.
- Deception in getting an excused absence to obtain the undeserved opportunity to make-up work. Use of cell phones or text messaging technology/other devices during exams or quizzes. You may not use the calculator on your cell phones or any other similar electronic devices (such as I-Pods, I-Touch, etc.). IF ONE OF THESE DEVICES IS AVAILABLE <u>IN ANY WAY</u> DURING AN EXAM OR QUIZ, THE STUDENT WILL BE GIVEN AN AUTOMATIC "0" ON THE ASSIGNMENT.
- Improper citations in written works, or using another person's ideas and words as your own without giving proper credit.
- Any method, no matter how well rationalized or accepted, which gives an unfair advantage and/or improves a person's grade by any means other than study and skillful performances on exams and/or other assignments.

Students found guilty of an act of academic dishonesty in this course will be subject to receiving an "F" in this course, as well as the below-mentioned disciplinary actions, as deemed appropriate.

### Specific additional disciplinary action for these offenses may include any combination of the following:

Point deduction of an assignment Failure of an assignment A grade of zero for an assignment Failure of this course Referral to the Academic Integrity Committee or department head for further action Referral to the Dean of the College of Science and Engineering, and other Deans as appropriate Referral to the University Discipline Committee

### **Grade Reporting for Freshmen:**

Grades for students in freshmen level classes will be reported to the Registrar's Office at the end of the fifth week of class during the fall and spring semesters.

### **Students with Disabilities -- ADA Statement:**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services Texas A&M University-Commerce Gee Library, Room 162 Phone (903) 886-5150 or (903) 886-5835

#### Fax (903) 468-8148

 Email:
 StudentDisabilityServices@tamuc.edu

 Website:
 Student Disability Resources & Services

 http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

### **Non-Discrimination Notice:**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability,

age, genetic information, or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

#### **Concealed Carry Statement:**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

#### Web url:

 $\underline{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf$ 

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

### **COURSE OUTLINE/CALENDAR**

**Topics Covered (tentative schedule):** Tentatively, the following content will be covered during the following weeks. Changes to this schedule will be made during class, if needed.

	Suggested Schedule				
Week	Competency	Activities			
1	Venn, Diagrams, Tree Diagrams, Graphing, Tables	Pretest, Videos, Readings, Exercises,			
		Review, Posttest			
2	Subscript & Summation Notation, Factorials Notation, Fundamental	Pretest, Videos, Readings, Exercises,			
	Counting Principle, Radicals, At most, At least, Estimation,	Review, Posttest			
	Rounding, Dimensional Analysis				
3	Substitute into an Expression, Evaluate Formulas, Percent,	Pretest, Videos, Readings, Exercises,			
	Decimals, Simple Interest, Compound Interest	Review, Posttest			
4	Prime and Composite Numbers, Prime Factorization, Rules of	Pretest, Videos, Readings, Exercises,			
	Divisibility Fibonacci, Golden Ratio, Sequences	Review, Posttest			
5	Venn Diagram Project	Work on Project			
6	Buying a Car Project	Work on Project			
7	Projects	Finish Projects			

### \*\*\*All submissions must be turned in by the end of the last day of the term\*\*\*

### Remaining enrolled in this course constitutes acceptance of all policies contained in this syllabus.

Any changes to this syllabus and/or schedule will be communicated directly to you in class by the instructor. You are responsible for being aware of any such changes. *Good luck and work hard!!*