Mathematical Applications for Business - Winter Term 2022

*MATH 123-700 CRN 13049 MATH 105-701 CRN 13048 Web Delivery Lab integrated with MATH 123

Instructor: R. L. Ayers **Office:** COHH 3112

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Office Hours: by appointment via zoom.

MATH 123 specifically meets the five learning objectives as detailed below:

Learning Objective 1: Interpret information presented in mathematical and/or statistical forms.

Learning Objective 2: Illustrate and communicate mathematical and/or statistical information symbolically, visually and/or numerically.

Learning Objective 3: Determine when computations are needed and execute the appropriate computations.

Learning Objective 4: Apply an appropriate model to the problem to be solved.

Learning Objective 5: Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis.

- Algebraic concepts
- Linear equations and functions
- Quadratic and special functions
- Exponential and logarithmic functions
- Mathematics of finance
- Derivatives
- Introduction to probability

Course: MATH 123: **Mathematical Applications for Business** (3 hours) meets five learning objectives as part of the Colonnade Plan education requirement for quantitative reasoning. MATH 123 is a course in which graphing and problem solving are integrated throughout the study of algebraic concepts including polynomial, rational, exponential, and logarithmic functions. Topics also include mathematics of finance, introduction to probability, and derivatives. This course emphasizes applications in business-related fields.

!!!!!!!! If you have a MATH ACT score below 22, you MUST ALSO be enrolled in the MATH 105 section paired with the course. The MATH 105 is a co-requisite to this course.

Textbook (OPTIONAL): College Mathematics for Business, Economics, Life Sciences, and Social Sciences 14th edition, Barnett, Ziegler, and Byleen, Pearson with MyLab Math: the textbook is OPTIONAL. **Textbook is optional**; the entire content of the textbook can be accessed online within the MyLab Math program. (not required)

Course Material: A subscription to MyLab Math (MLM) is <u>required</u> for this course. MyLab Math access codes are linked with specific textbooks. I use the First Day Access and the use of the code will be charged to your university account. Instructions are on this syllabus.

• First Day Inclusive Access

Some or all required materials for this class are delivered through the First Day Inclusive Access program. The First Day program provides access to required materials automatically, typically through one or more links within Blackboard. If you receive access through some other means, your instructor can provide you details. For more information and FAQs go to customercare.bncollege.com.

While I do not recommend that you do so, you may choose to opt-out at any time within fourteen (14) days of the start of your class utilizing the First Day portal, and this is the only official way to opt-out. Keep in mind that you will be responsible for purchasing your course materials at the full retail price.

Be sure to select the correct section for the First Day Access code

PLEASE BE SURE TO REGISTER IN THE CORRECT SECTIONS OF MyLab Math, this will be checked. Your courseID is: ayers75264

Course Guided Notes: A set of guided notes will be in the blackboard course. One set of the notes is blank, and the other set is completed. It is strongly recommended that you print the blank set and try to complete examples on your own while watching the videos provided as lecture also in blackboard. The completed copy is there as reference.

Calculator: Each student is required to have a graphing calculator for use in class and for assignments. TI-84 are preferred, and instruction for these models will be given. PROHIBITED CALCULATORS include: TI-89, TI-92, Casio FX-115 series, Casio FX-991 series, and any calculator with CAS capability. Cell phone calculators are also prohibited! Smart watches are also not prohibited. If your preferred calculator is not listed in this section, verify its acceptability with your instructor!

Attendance: Participation in this course is crucial to your success. Of course, with COVID-19 this is an issue. This course will have a web delivery via videos and posted notes in blackboard. I have created guided notes for the course. I have created lecture videos of the notes. I have posted completed notes based on the video and guided notes. All this is available in the blackboard course. It is in your best interest to access any of the three platforms to assist with your learning of the material.

Communication: Email, Blackboard, and MyLab Math (MLM) will be used primarily as a means of communication between the instructor and the students. **I do not post grades on blackboard or via email**. Your grade can always be found in MyLab Math (MLM). Weekly updates are sent....read them, they are very informative.

Homework: The business world applies REAL-WORLD mathematics every day. Remediation of concepts and skills outside of class is vital to your long-term understanding of the material. There are assignments for each section that are not required, but are there for extra practice. They are labeled with a section # and NR at the end. These are NOT for a grade.

Reviews: Reviews will be set for each UNIT. These are REQUIRED to be completed. This course is an APPLICATIONS course, practice and a growth mindset will help you succeed. MATH IS NOT A SPECTATOR SPORT!!!!

Exams: Exams will be administered using MLM, which algorithmically generates different versions of each test. Exams will have a built-in show your work feature. I will not except any emails with work shown, you must use the show your work feature to receive partial credit for problems. Due to COVID-19, all exams will be given via the MLM system. You will be required to complete exams by set deadlines. This will be strictly enforced. You will not be required to have cameras watching you or the use of a lockdown browser. THE EXAMS WILL BE TIMED!!! There will be minimal devices used to ensure "cheating" on the exam. The program will have a minor feature used that will set the exam so that no other windows can be opened while in the exam AND the exam will be timed!!!!! I am planning to have a minimum of 4 exams. You will get two attempts per exam, with the highest kept. All exams are set for 3 hours.

Final Exam: A final exam will be given during finals week. All exams are expected to be taken seriously and completed. This exam will be administered using MLM.

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NOTE: I do not use the LMS of Blackboard for reporting your grade. You will always be able to see your grade in MLM. At the end of every week, I will enter the gradebook and submit zeros for assignments that are past due. BUT, DON'T FEAR you WILL be able to improve that score beyond the due date. You must make the effort.

Course Grade: A weighted average for this course will be calculated for students who have successfully completed all four module exams and the final exam. This weighted average will be calculated using the following weighted grading scale.

- Homework 10%
- Exams/Final Exam 90%

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Letter grades will be assigned from the weighted average using the following grading scale.

- A 90 100%
- B 80 89%
- C 70 79%
- D 65 69%
- F 65% and below

I reserve the right to adjust this scale and syllabus if it is deemed necessary.

Note: A grade between 60 and 65 is not a guarantee of an F in the course, I will look at other factors when the final grade is considered. Although students may earn a D, they should be aware that many courses require a C in Math 123 as a pre-requisite and several majors require a C in Math 123 to satisfy a general education/colonnade requirement in mathematics.

Before the withdrawal date for the semester, November 1, you will be notified by me regarding your grade and status in the class after every initial exam. If you have not successfully completed Exam 1 by this date, a recommendation will be made to WITHDRAW. Such students will be encouraged to seek additional guidance.

Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken.

Electronic Devices: Cell phones may not be used as calculators.

I want to be available to help you! You may either: email, call my office, or come by my office for assistance; however, with email I do not usually read them between the hours of 8 pm and 8am and very seldom on the weekends. Whenever you send me an email requesting my assistance, I will respond to your request as quickly as possible usually within 48 hours.

!!!!!! I reserve the right to adjust this scale and syllabus, if it is deemed necessary.

Pencils only for mathematics. Any assignments done in pen will not be accepted. This policy will be enforced if the exams are paper and pencil.

Tips for success in the course: from the minds of other students

Do the homework on time.

- Get the notes and watch the videos.
- Ask questions and attend sessions.
- Get organized with deadlines.
- Show your work, not scratches on a page, real work.
- She is there to help, but you have to ask.
- Don't wait for the last minute to complete anything.

Emails pleading for extra credit opportunities and/or mercy regarding final grades will not be answered. You can be successful in this course. You establish your Math Mindset on day one!

Please turn off all cell phones and pagers when class begins.

Your cell phone cannot be used as a calculator....do not ask.

I want to be available to help you! You may zoom meet, email, call, or come by my office for assistance; however, with email I do not usually read them between the hours of 2 pm and 8am and very seldom on the weekends. Whenever you send me an email requesting my assistance, I will respond to your request as quickly as possible usually within 48 hours, except for weekends.

Note: Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken.

Academic Dishonesty: Academic dishonesty will not be tolerated. This includes any form of cheating or plagiarism. The policy is found on the web at http://www.wku.edu/coursecatalog/index.php?subcategoryid=75

Academic Dishonesty —Students who commit any act of academic dishonesty may receive from the instructor a failing grade in

that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The

faculty member may also present the case to the Office of Student Life for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.

Plagiarism —To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The

academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.

Cheating - No student shall receive or give assistance not authorized by the instructor in taking an examination or in the

preparation of an essay, laboratory report, problem assignment or other project which is submitted for purposes of grade determination.

Title IX Misconduct/Assault Statement: Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's <u>Sex and Gender-Based Discrimination</u>, <u>Harassment</u>, <u>and Retaliation</u> (#0.070) and <u>Discrimination</u> and <u>Harassment Policy</u> (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Deborah Wilkins, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's <u>Counseling and Testing</u> <u>Center</u> at 270-745-3159.

ADA Accommodation Statement In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Face Coverings: All students are strongly encouraged to get the COVID-19 vaccine. Out of respect for the health and safety of the WKU community and in adherence with CDC guidelines and practices of all public universities and colleges in Kentucky, the University requires that a cloth face covering (reusable or disposable) that covers both the nose and mouth must be worn at all times when in public areas within all buildings. Students must properly wear face coverings while in class regardless of the room size or the nature of the classroom activities. Students who fail to wear a face covering as required will be in violation of the WKU Student Code of Conduct and will be asked to comply or will face disciplinary action, including possible dismissal from the University. Accommodations can be requested in special cases through the Student Accessibility and Resource Center (SARC): 270-745-5004 (voice), 270-745-3030 (TTY), or 270-288-0597 (video).

All students must immediately report a positive Covid-19 test result or close contact with a person who has tested positive to the Covid-19 Assistance Line at 270-745-2019. The assistance line is available to answer questions regarding any Covid-19 related issue. This guidance is subject to change based on

requirements set forth by public health agencies or the office of the governor. Please refer to the Healthy on the Hill website for the most current information. www.wku.edu/healthyonthehill

Co-Req Support for Math Applications for Business - Winter 2022

*MATH 105-701 CRN 13048

Web-delivery

Course Description: Co-requisite support for students in Math 115C, Math 116C, or Math 123. Topics include functions, graphs, and fundamental concepts of algebra. This course is required for students taking MA 115C, MA 116C, or MATH 123 that would have previously been placed in DMA 096C. The purpose of this class is to provide extra practice and opportunities for students to get help in building basic skills that will support the MATH 123 course. This extra help will be delivered into a Study Plan feature via MyLab Math that will be used in your MATH 123 course.

Co-Requisite: MATH 123 if

- your Math ACT score is below 22
- your Math SAT score is below 560
- your WKU Math Placement Exam (MPE) score is below 14

Required Technology: MyLab Math access. You will be required to access this platform and you will be given the access code in your MATH 123 co-requisite course. There is NOT an additional fee. MATH 105 *is embedded* within the MATH 123 course.

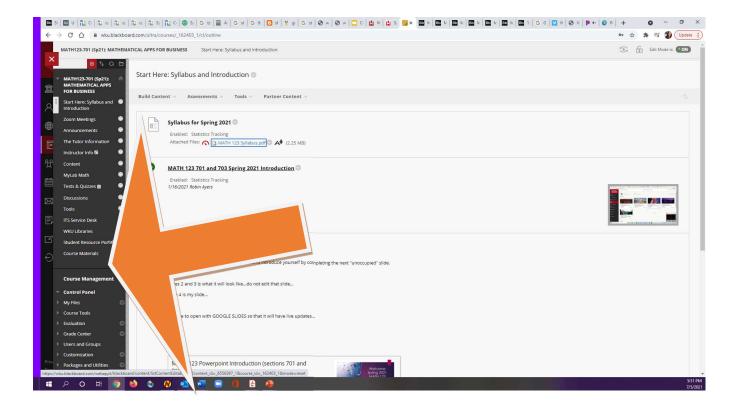
The SKILLS Quizzes are the work for the MATH 105!!!!!: The amount of work that you have in the study plan will depend on your mastery of the objectives.

Course Grade: Your course grade in MATH 105 will be based solely on your grade on the Skills Quizzes.

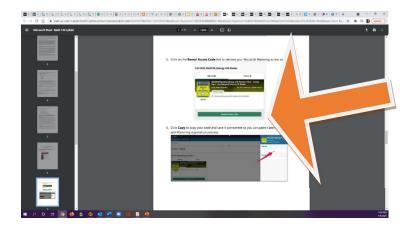
First Day Access

Once you have logged into WKU's Blackboard portal, you will be able to locate your access code and access our course to begin and complete the registration process to MyLab Math.

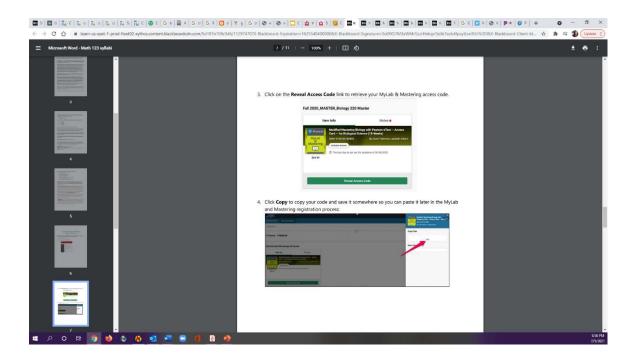
- 1. Log into Blackboard and enter our course.
- 2. Click on Course Materials



3. Click on the Reveal Access Code link to retrieve your MyLab & Mastering access code.

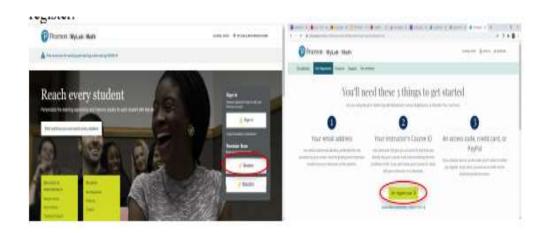


4. You can either click copy or just write it down to use in the registration process. I highly recommend you just write it down!!!!



Instructions for Registering for MyLab Math

1. Go to www.pearsonmylabandmastering.com, then under Register, select student, the OK to register.



2. PLEASE BE SURE TO REGISTER IN THE CORRECT SECTIONS OF MyLab Math, this will be checked.

Your courseID is: ayers75264.



These next instructions depend on if you already have an account. Pay attention to either 3A or 3B. If you are not sure, just ask me.

3A. If you already have a Pearson account, enter your username and password, and selet Sign In. all codes are paired with texts, so you will still need an access code.

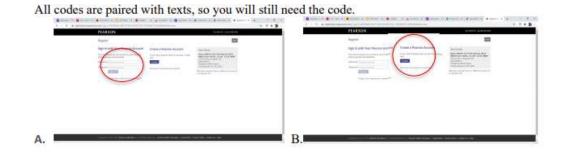
3B. If you do not have a Pearson account, select CREATE and follow the instructions. I suggest that you use your WKU login username and password for email, so that it is one less thing to memorize.

When you create your account, be sure to put your name as it is listed on my class roster.

Be sure to enter your email and name correctly. If you use your WKU email, remember it is:

Firstname.lastname###@topper.wku.edu

I suggest that you use only the part before the @ as your username.



4. Select access option: then enter the Access Code that you copied via the First Day Access process.



When prompted, select Yes to complete your registration. Follow the instructions and enter the access code you received from First Day Access.



It is very important that you remember your login. If you forget, DO NOT create a new account, email me and I will try to help.

Select Go to My Courses. To sign in later: 1. Go to www.pearsonmylabandmastering.com. 2. Select Sign in. 3. Enter your Pearson account username and password, and Sign in. It is very important that you remember your login information. I suggest that you write it down here for safe keeping.

IF YOU ARE A MAC USER...DO NOT USE SAFARI...USE ONLY CHROME OR FIREFOX.
IF YOR ARE A MAC USER...YOU MUST ALSO SET THE COOKIES SETTING!!!