MAT 202: Finite Math

Ms. Cassie McLain cjmclain@peace.edu

Course Dates: 5/9/22 – 8/13/22

Day/Time: Online

Location: Moodle & MyMathLab

Course Description

MAT202 exposes students to a wide variety of mathematical concepts and practical applications. It is a fast-paced course and requires a significant amount of pre-requisite skills, such as numeric computations (including fractions), simplifying expressions, solving equations (including exponential and logarithmic), formula applications and proficiency in using the TI-83/84 calculator.

If you are unfamiliar with any of the pre-requisite topics listed, please consider taking MAT111 prior to taking this course.

This course covers selected topics in finite mathematics, including set operations, elementary probability, counting techniques (including permutations and combinations), matrices, solving system of equations, linear programming, and mathematics of finance.

Course Objectives

Students will have the opportunity to

- Learn how to set up and solve Interest, Annuities, and Amortization problems
- Become familiar with the use of sets to solve problems
- Become competent in calculating probabilities using various methods
- Differentiate between and to use Permutations and Combinations in counting
- Develop competency in solving systems of equations
- Understanding matrix operations
- Understand how to set up and solve linear programming problems

Required Course Materials

- 1. MyMathLab Access code
- 2. TI-83/84 Calculator
- 3. Access to Microsoft Excel

The MyMathLab Access code may be purchased online through Pearson (details in MyMathLab Registration flyer posted on Moodle) or at the WPU bookstore. This course code comes with an e-text version of the textbook, which is sufficient for my purposes; however, if you prefer a hard copy of the textbook, it is listed under the "Optional Course Materials".

Optional Course Materials

4. Textbook: Lial, M.L., Greenwell, R.N., Ritchey, N.P. (2016). *Finite Mathematics* (11th ed). Boston: Pearson. ISBN: 9780321979438

Email/Communication Policy

All emails received Monday – Friday will be replied to within 24 hours. Emails received on Saturday and Sunday will be replied to within 48 hours. Professional communication is expected.

Class Participation Policy for Online Courses

All online courses in the School of Professional Studies are fully online and require the use of Moodle. Weekly readings, activities, and assignments will be listed in Moodle. You should expect to spend on average 10-15 hours per week on an individual 3-credit course. This includes all the readings, assignments, and labs. You should expect to log into the course daily, or at least 4-5 times per week. Participation and conduct-related problems may be reported to the Vice President of SPS or designee. Failure to uphold the attendance/participation policy may result in failing the course. If you have any problems accessing Moodle please contact Dr. Lori McClaren, Director of Online Learning at (919) 508-2367.

Missed/Late Work Policy

Late assignments **will not** be accepted. Students with serious, mitigating circumstances that prevent them from completing assignments on time should contact the instructor **prior to the assignment deadline.** Students who find themselves in this situation should be prepared to provide documentation/verification of the circumstances that prevent them from submitting work on time. In these cases, a contract will be established outlining the conditions for an extension.

Tutorial Services

Peer Tutoring is available for all WPU students free of charge. Support is offered in many subjects, including anthropology, biology, business, chemistry, criminal justice, history, math, political science, psychology, simulation and game design, and writing. Free workshops on study skills and documentation styles like MLA and APA are also offered each semester. Tutorial Services also has many resources on studying, citation, grammar, and other academic topics. Students can sign up for individual appointments using WPUConnect or in person at the Center for Student Success, located in the 2nd floor of Finch Library. For more information, contact Dr. Deanna Rogers, Director of Academic Support, at drrogers@peace.edu or 919-508-2080.

Proctoring Policy

All online courses at William Peace University require one (1) proctored exam or activity during the final week of the course. Students enrolled in fully online courses are provided with university-approved proctoring options and guidelines and are required to verify their identity regardless of the proctoring option selected. On campus proctoring and proctoring at approved local centers are options for students to utilize to fulfill this requirement. Students can also opt to use an approved third-party vendor such as ProctorTrack or ProctorU. ProctorU and ProctorTrack require identity verification and each student is monitored via a live proctor through remote access. Additional information regarding proctoring options will be sent closer to the exam window.

Disability or Learning Services

Disability Services are available to all WPU students who require reasonable accommodations due to any cognitive, physical, or psychological disability, in order to provide equal access to the educational environment. Students will need to be registered with the office and provide appropriate documentation, in accordance with local, state, and federal laws, in order to receive an Academic Accommodation Plan. For more information or to register, contact a counselor in the Disability Services Office, which is located on the 1st Floor of Joyner House. You may also reach Disability Services by sending an email to Disability@peace.edu.

Academic Integrity

William Peace University seeks to develop both the intellect and character of its students. All members of the University are expected to promote a culture of academic integrity, and all students are expected to inform themselves of the University's policies and procedures related to the Honor Code.

All forms of academic misconduct are violations of the University's Honor Code. These include, but are not limited to:

- **Cheating**: using or attempting to use unauthorized materials, information, or study aids in academic work or in working with others on academic requirements (tests, assignments, etc.).
- **Plagiarism**: representing the words or ideas of another as one's own in any academic work.
- **Falsification**: falsification or invention of any information or citation in academic work.
- **Facilitating academic dishonesty**: helping or attempting to help another student to commit an act of academic dishonesty as noted above.
- **Lying**: misrepresenting information that is relevant to the classroom or academic performance.

If a faculty member suspects academic misconduct has taken place, s/he will complete an Honor Code Violation Report and meet with the student to discuss. A student may accept or decline to accept responsibility. If a student accepts responsibility, s/he will be subject to the penalty determined by the faculty member. If a student declines to admit responsibility, the case will be turned over the Honor Board for adjudication. A complete summary of the Honor Code and Honor Board policy can be found in the 2020-2021 Academic Catalog.

Grading

Grades will be reported in Moodle.

A: 100 – 90 B: 89 – 80 C: 79 – 70 D: 69 – 60 F: 59 – 0

Categories	Percentage of Total Grade
Homework	20%
Excel Lab	15%
Quiz	25%
Final Exam	40%

Category Descriptions

A PowerPoint presentation for each section will be posted on Moodle. To read/practice the material contained within each of these files should take approximately 3-5 hours per chapter. For each chapter, I also provide supplemental video instruction through Khan Academy as well as the Pearson PowerPoints that come along with the textbook. Also, searching on YouTube or TeacherTube for particular topics can be helpful; email the instructor if you need help locating additional resources.

Homework (20%):

There will be a homework assignment for each section covered in the lecture PowerPoints. The homework will be facilitated through MyMathLab. You have 5 attempts per question with the option of a "Try A Similar Question" to give you another example to try. These assignments are not timed. You can save and come back later to pick up where you left off. MyMathLab also has extra tools such as a eText w/ videos. Also, in the top left corner of the homework screen, there is a drop down menu to provide additional assistance. I highly suggest the "View An Example". While I do not always solve problems the same way the book does, this tool gives step-by-step instruction on how to solve a particular problem. If you use the "Ask the Instructor" tool, please send me a picture of your work so that I can see what you have done and how to help. Students should refer to the calendar on MyMathLab for due dates.

Excel Lab (15%):

Labs are practical applications of concepts covered in lecture require use of Excel to demonstrate applicability of technology. Labs will be submitted in the assignment link through Moodle. You have $\underline{1}$ attempt to submit a lab and should follow submission directions under each assignment link to $\underline{ensure\ you}$ attach the correct number and type of file. Labs turned in without following proper submission instructions will not be graded. Students should refer to the calendar on Moodle for due dates.

Quiz (25%):

There is a quiz after completing several units to summarize what has been taught up to that point. You have 2 attempts, where each submission is graded holistically (meaning you must answer every question on the quiz, submit the quiz, receive your grade; then you can review what was missed and take the entire quiz a second time). Your recorded grade will be an average of these attempts. These assessments are timed with a 1-hour maximum. You must complete the quiz in one sitting; you do not have the option to save and come back later. Quizzes are unproctored and you can use your notes while taking the quiz and any homework problems you have written down, but you cannot access anything else in MyMathLab while taking a quiz. If you try to access any other screen in MyMathLab while taking a quiz, it will submit your quiz and lock you out of everything. If this happens, you will have to email me to regain access and you will not get an additional attempt on the quiz. Also, please ensure that you have a secure internet connection; a disruption in your internet service may also result in getting locked out. Remember there may be a 24-48 hour turn around in email communication, so please do not procrastinate because if you run into an issue, you may run out of time before receiving assistance. Students should refer to the calendar on MyMathLab for due dates.

Exam (40%):

There is one <u>proctored</u> exam at the end of the course. The assessment is <u>timed with a 2-hour maximum</u>. You <u>must complete the exam in one sitting</u>; you do not have the option to save and come back later and you do not have access to any other features in MyMathLab. The exam is <u>closed-book/closed-note</u>; you will be provided a formula sheet that you can use along with your TI-84 (or less) HANDHELD calculator, blank paper, graph paper, and a blank Excel spreadsheet, if desired.

Course Schedule

Schedule and content for the course are tentative and may be changed at the instructor's discretion. Please refer to the course Moodle page and MyMathLab calendar for weekly due dates.

Date	Lecture Topic/Assignment	Homework
5/9 - 5/15	Course Introduction	Student Intro Forum, due 5/13, 5/15 @ 11:59pm MyMathLab Orientation, due 5/15 @ 11:59pm
5/16 - 5/22	Ch R: Algebra Reference	MyMathLab HW, due 5/22 @ 11:59pm
5/23 - 5/29	Ch 1: Linear Functions Linear Regression Modeling Lab	MyMathLab HW, due 5/29 @ 11:59pm Excel Lab due 6/12 @ 11:59pm
Monday, May 30 th – MEMORIAL DAY – NO CLASSES		
5/31 - 6/5	Ch 3: Linear Programming Linear Programming Solver Lab	MyMathLab HW, due 6/5 @ 11:59pm Excel Lab due 6/12 @ 11:59pm
6/6 - 6/12	Quiz #1 ~ Chapters 1 and 3 Labs "Work Week"	MyMathLab Quiz, due 6/12 @ 11:59pm Finish 2 Labs, due 6/12 @ 11:59pm
6/13 - 6/19	Ch 2: Matrices Matrix Operations Lab	MyMathLab HW, due 6/19 @ 11:59pm Excel Lab due 7/3 @ 11:59pm
6/20 - 6/26	Ch 5: Finance Buying a Car Lab	MyMathLab HW, due 6/26 @ 11:59pm Excel Lab due 7/3 @ 11:59pm
6/27 - 7/3	Quiz #2 ~ Chapters 2 and 5 Labs "Work Week"	MyMathLab Quiz, due 7/3 @ 11:59pm Finish 2 Labs, due 7/3 @ 11:59pm
Monday, July 4 th – INDEPENDENCE DAY – NO CLASSES		
7/5 - 7/10	Ch 9: Statistics Steroids in Baseball Lab	MyMathLab HW, due 7/10 @ 11:59pm Excel Lab due 7/31 @ 11:59pm
7/11 - 7/17	Ch 7: Probability Medical Testing Lab	MyMathLab HW, due 7/17 @ 11:59pm Excel Lab due 7/31 @ 11:59pm
7/18 - 7/24	Ch 8: Counting Principles	MyMathLab HW, due 7/24 @ 11:59pm
7/25 - 7/31	Quiz #3 ~ Chapters 7, 8, and 9 Labs "Work Week"	MyMathLab Quiz, due 7/31 @ 11:59pm Finish 2 Labs, due 7/31 @ 11:59pm
8/1 - 8/7	Exam Review	Research Forum, due 8/5, 8/7 @ 11:59pm MyMathLab Study Plan, due 8/7 @ 11:59pm
8/8 - 8/13	Final Exam (proctored)	