



Mathematical Applications for Health Sciences
MATH 125– 3 Credits

Semester:

Instructor:

Office Hours:

Office Location:

Phone Number:

Email:



Mode of Delivery: Online

Goodwin's online learning management system, Canvas, contains reading materials, media, assignments, and assessments that can be accessed at any time during a specified period. This syllabus contains an established schedule for you to follow so you know what you should be doing and when. You are expected to complete and submit all assignments and assessments before the established due-date and time each week.

Prerequisite/Co-requisites: None

Goodwin University works towards an inclusive learning environment where all members of the Goodwin community are treated with respect and dignity. We strive towards universally designed learning environments that are equitable and inclusive. We work to denounce discrimination of any form and maintain a collaborative community with an awareness of global perspectives on social justice.

Course Description:

- This course is designed for individuals who are pursuing careers in health-related professions. Emphasis is placed on becoming proficient at arithmetic, algebra, converting measurements, interpreting data, and applying mathematical concepts to address professional problems within context.

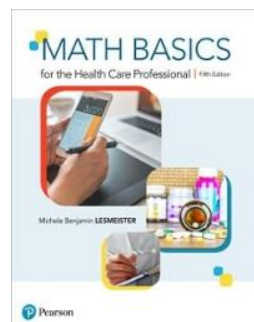
Required Text:

Pearson MyMathLab Access Code for

Lesmeister M. (2018). *Math basics for the health care professional*.

Pearson.

ISBN: 978-0134703695



The courseware comes with lifetime access and includes the eBook, both of which are required for this course.

Course Goal:

Students will learn a variety of mathematical tools that can be used to solve everyday problems related to the healthcare field.

Student Learning Outcomes:

<i>Learning Outcomes</i>	<i>Assessment Methods</i>
1. Distinguish among various units of measurement	Assignments Quizzes Exams
2. Convert different units of measurement to solve problems in context	Assignments Quizzes Exams
3. Apply mathematical formulas to solve problems of practice	Assignments Quizzes Exams
4. Explain the calculation methods applied to solve problems and how they arrived at their answers	Assignments Quizzes Exams

Grading Policy

Your performance in this course is assessed using multiple, varied methods in the areas listed below and based on the expectations as described in the syllabus. If you do not understand the expectations, it is your responsibility to ask the instructor questions.

Exams 3 @ 10% each	30%
Discussion Questions	10%
MyMathLab Assignments	20%
Quizzes	15%
Cumulative Final Exam	25%
Total:	100%

LATE PENALTY for Homework Assignments

Only applies to Homework Assignments. There will be a late penalty of when Homework is completed late. Two percentage points will be subtracted for each day after the due date that the assignment is submitted.



Timely Submission of Assignments: Balancing workload and meeting deadlines are an integral of the university experience and professional careers. **All work in this course is due by [TBD day of week] at 11:59 pm, except for work in the last week of the semester or mod.** Assignment due dates are listed in the Teaching and Learning Outline and syllabus, so be sure to make note of them and create a schedule of reminders to ensure assignments are submitted on time. Any assignments not submitted by the specified due date will result in a grade of “0” (zero) for that assignment, and a grade of “0” will be entered in the gradebook. This practice

provides you with real-time information on your grade for the course and maintains the integrity of the gradebook. Because due dates are listed in this syllabus, the need for extensions should be extremely rare. Should you have a need to request an extension, email me **by [TBD day of week] at 11:59 pm** the week the assignment is due. Write *Request for an Extension* in the subject line of your email and explain to me your plan for completing your work. There is no need to share the reason for your request. **You will have XX [TBD] to complete this work. In addition, please note that [X] extension[s] [is/are] possible in this course.**

Coursework Expectations

- **Exams:** No exams can be retaken and there is no “extra credit.” No exam grade is “dropped.” You must be prepared and make your best effort on each exam. Exams are taken on Pearson MyMathLab during the weeks noted on the schedule. Like all other assignments, they are assigned on Monday at 12:00 AM and due by Sunday at 11:59 PM.
- **MyMathLab Assignments:** Each week you will be presented with new information and corresponding homework assignments. Use the eBook and any associated videos or readings to take notes and learn new material. **You must complete the homework online on Pearson MyMathLab assignments to receive credit.** You have unlimited attempts on assignments to achieve the desired grade. Each weekly assignment is assigned on Monday at 12:00AM and due the following Sunday at 11:59PM.

This section of the syllabus contains a listing with brief descriptions of the assessment methods for this course. They are designed to align with the student-learning outcomes and provide you with varied ways to demonstrate mastery of the course content. ***Additional instructions, course materials and grades are posted to Canvas. All work must be completed in Pearson MyMathLab.***



MyMathLab Assignments (20%): Course expectations related to homework focus on demonstrating mastery and application of topics. In this course, you will be assessed based on the following criteria: (a) acting ethically and with integrity, (b) demonstrating foundational knowledge pertaining to the week’s topic, and (c) advancing the level and depth of learning. To earn full credit, be sure to be actively engaged in using Pearson MyMathLab Software (a) logging in for 90 minutes to 2 hours daily at minimum, (b) engaging with all assigned readings and videos, (c) demonstrating mastery of topic(s) in Pearson MyMathLab assignments, and (d) using online “Send To Instructor” button for questions as needed.



Exams and Cumulative Final Exam (55% total - 3 Exams @ 10% = 30%, 1 Cumulative Final Exam @25% = 25%): The purpose of this assignment is confirming mastery of a unit or body of work spanning multiple topics or concepts. Exams and the Cumulative final exam will assess for mastery of the integration of concepts and real-world applications.



Discussion Questions (10%): These discussion questions are reflective in nature and are meant to drive engagement and student-to-student interactions. All the discussion questions will be combined to account for 10% of your final grade. See the discussion question rubric on Canvas for details and grading. The discussion question responses will be submitted via Canvas.



Quizzes (15%): The purpose of the quizzes is to confirm mastery to see what you are learning and where you need more focus. You will complete quizzes that are based on the Pearson MyMathLab assignments. ***Each quiz must be completed on or before the due dates at 11:59 pm, which are typically every Sunday.***

Course Outline / Class Schedule for MATH125 Online

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed <i>on or Before Sunday at 11:59 PM in Pearson MyMathLab</i>
1 (add dates here)	Whole Number Review	<ul style="list-style-type: none"> PRETEST Text Sections: Unit 1 – Whole Number Review Module 1 Discussion MyMathLab Assignment: Unit 1 Homework Quiz: Unit 1 – Whole Number Review
2 (add dates here)	Fractions Decimals	<ul style="list-style-type: none"> Text Sections: Unit 2 – Fractions Unit 3 – Decimals Module 2 Discussion MyMathLab Assignment: Unit 2 Homework Unit 3 Homework Quiz: Unit 2 – Fractions Unit 3 – Decimals
3 (add dates here)	Ratios and Proportions Percents and their Applications	<ul style="list-style-type: none"> Text Sections: Unit 5 – Ratios and Proportions Unit 7 – Percents Unit 8 – Combined Applications

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed <i>on or Before Sunday at 11:59 PM in Pearson MyMathLab</i>
		<ul style="list-style-type: none"> • <u>MyMathLab Assignment:</u> Unit 5 Homework Unit 7/8 Homework • <u>Quiz:</u> Unit 5 – Ratios and Proportions Unit 3 – Percents and their Applications
4 (add dates here)	Whole Numbers, Fractions, Decimals, Ratios, Proportions, Percents	<ul style="list-style-type: none"> • Exam 1 – Unit 1, 2, 3, 5, 7, 8
5 (add dates here)	Pre-Algebra	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 9 – Pre-Algebra Topics • <u>Module 5 Discussion</u> • <u>MyMathLab Assignment:</u> Unit 9 Homework • <u>Quiz:</u> Unit 9 – Pre-Algebra Topics
6 (add dates here)	The Metric System	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 4 – The Metric System • <u>MyMathLab Assignment:</u> Unit 4 Homework • <u>Quiz:</u> Unit 4 – The Metric System
7 (add dates here)	Measurement Conversion	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 6 – Measurement Conversion • <u>Module 7 Discussion</u> • <u>MyMathLab Assignment:</u> Unit 6 Homework • <u>Quiz:</u> Unit 6 – Measurement Conversion
8 (add dates here)	READING WEEK	<ul style="list-style-type: none"> • No new assignments
9 (add dates here)	Pre-Algebra, The Metric System, and Measurement Conversions	Exam 2 – Unit 4, 6, 9
10 (add dates here)	Reading Labels and Medical Equipment Dosage Calculations	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 10 – Reading Labels and Medical Equipment Unit 12 – Dosage Calculations • <u>Module 10 Discussion</u> • <u>MyMathLab Assignment:</u> Unit 10 Homework Unit 12 Homework • <u>Quiz:</u>

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed <i>on or Before Sunday at 11:59 PM in Pearson MyMathLab</i>
		Unit 10 – Reading Labels and Medical Equipment Unit 12 – Dosage Calculations
11 (add dates here)	Parenteral Dosage	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 13 – Parenteral Dosage • <u>MyMathLab Assignment:</u> Unit 13 Homework • <u>Quiz:</u> Unit 13 – Parenteral Dosage
12 (add dates here)	Basics of IV Fluid Administration	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 14 – Basics of IV Fluid Administration • <u>Module 12 Discussion</u> • <u>MyMathLab Assignment:</u> Unit 14 Homework • <u>Quiz:</u> • Unit 14 – Basics of IV Fluid Administration
13 (add dates here)	Basic Dosage by Body Weight	<ul style="list-style-type: none"> • <u>Text Sections:</u> Unit 15 – Basic Dosage by Body Weight • <u>MyMathLab Assignment:</u> Unit 15 Homework • <u>Quiz:</u> • Unit 15 – Basic Dosage by Body Weight
14 (add dates here)	Reading Labels and Equipment, Dosage Calculations, Parenteral Dosage, Basics of IV Admin, Dosage by Body Weight	<ul style="list-style-type: none"> • Exam 3 – Unit 10, 12, 13, 14, 15
15 (add dates here)	All Topics Covered Modules 1 - 14	<ul style="list-style-type: none"> • CUMULATIVE FINAL EXAM • DUE ON FRIDAY



Class Policies



Academic Integrity

Goodwin University values the principles of academic integrity. This means that our class expects students to think critically, to share original ideas, and to be honest with respect to their intellectual efforts. Submission of work for academic credit must be original to this class, and it must be the student's own work. Goodwin University courses document sources in accordance with APA 7th ed. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and to avoid all forms of cheating and plagiarism. If you have questions about the university's Academic Integrity Policy or about what constitutes academic dishonesty, ask your instructor.



Pearson MyMathLab: Instructions for setting up your Pearson MyMathLab account is located in Canvas. Please follow instructions. If you have any questions or need assistance with setting up your account, please contact your instructor via Goodwin Email Only. **To establish attendance you must complete one assignment on or before Sunday at 11:59 pm.** Log in multiple times on or before Sunday at 11:59 pm to complete the assignments due for the week. At bare minimum you should spend 30-45 minutes per day in MyMathLab. If you have an emergency that can be documented and need to miss an assignment, contact instructor immediately using Goodwin email account.



Canvas: Canvas contains class materials such as login to Pearson MyMathLab, required readings, Pearson multimedia, discussion questions, rubrics, and additional course materials. Be sure to ***check Canvas often*** to stay up to date on announcements, new course materials, and other important information. ***All assignments are completed in Pearson MyMathLab. Once instructor has reviewed assignments, they will import grades into Canvas.***



Laptops and Computers: Laptops or computers with Google Chrome or Firefox are required for the course.



Course Decorum: Course Decorum: We will create a positive learning environment in this course. There is an expectation of respect and professionalism. The professional conduct policy includes, but is not limited to:

1. Abiding by Goodwin's academic integrity policy
2. Actively working on assignments in Hawkes Learning.
3. Planning outside activities to avoid conflicts with the due dates outlined in the syllabus.
4. Demonstrating respect for instructor through appropriate communications (see below)



Communication and E-mail: Students are expected to communicate in a professional manner (i.e., verbal, written, and electronic). I will send course updates and announcements through Canvas so please *check your Goodwin e-mail account regularly*.



Office Hours: Your success in my class is my main mission. I invite you to stop in during the office hours posted below or email me for appointments at other times. My office hours are an extension of class. They provide you with one-on-one time to meet with me to talk about and explore course topics, ask questions about assignments, or get guidance on how to be successful in the course.

Goodwin University Policies and Services

This course adheres to all policies outlined in the Goodwin University catalog.

General academic policies of Goodwin University may be found on the University web site at and in the University catalog at <http://www.goodwin.edu/academics/catalogs.asp>.

Student services information may be found on the Goodwin University website at <https://www.goodwin.edu/student-affairs/> and <http://www.goodwin.edu/library/>.