



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.

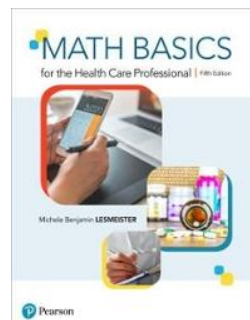
Course Description:

- 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: 9780134709031



All required course materials (textbook, learning resources, etc.) for this course are available to you in Canvas and have been financially covered by the course fee. No additional purchases are necessary. The courseware comes with lifetime access and includes the eBook.

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	Whole Number Review	<ul style="list-style-type: none"> • PRETEST • <u>Text Sections:</u> Unit 1 – Whole Number Review • <u>Syllabus Agreement and Technology Plan</u> • <u>Module 1 Discussion</u> • <u>MyMathLab Assignment:</u> Unit 1 Homework

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"> • Quiz: Unit 1 – Whole Number Review
2	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	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 • MyMathLab Assignment: Unit 5 Homework Unit 7/8 Homework • Quiz: Unit 5 – Ratios and Proportions Unit 3 – Percents and their Applications
4	Whole Numbers, Fractions, Decimals, Ratios, Proportions, Percents	<ul style="list-style-type: none"> • Exam 1 – Unit 1, 2, 3, 5, 7, 8
5	Pre-Algebra	<ul style="list-style-type: none"> • Text Sections: Unit 9 – Pre-Algebra Topics • Module 5 Discussion • MyMathLab Assignment: Unit 9 Homework • Quiz: Unit 9 – Pre-Algebra Topics
6	The Metric System	<ul style="list-style-type: none"> • Text Sections: Unit 4 – The Metric System • MyMathLab Assignment: Unit 4 Homework • Quiz: Unit 4 – The Metric System
7	Measurement Conversion	<ul style="list-style-type: none"> • Text Sections: Unit 6 – Measurement Conversion • Module 7 Discussion • MyMathLab Assignment: Unit 6 Homework • Quiz: Unit 6 – Measurement Conversion
8	Catch-up week (No class)	

Week / Date(s)	Topic(s) To be Covered Each Week	Assignments, Quizzes, and Readings to be Completed on or Before Sunday at 11:59 PM in Pearson MyMathLab
	<p>This week provides an opportunity for you to integrate upcoming materials, complete projects, and meet with instructors without the pressure of new or additional assignments.</p> <p>There are no written assignments or class sessions</p>	
9	Pre-Algebra, The Metric System, and Measurement Conversions	Exam 2 – Unit 4, 6, 9
10	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> Unit 10 – Reading Labels and Medical Equipment Unit 12 – Dosage Calculations
11	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	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	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	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	All Topics Covered Modules 1 - 14	<ul style="list-style-type: none"> • CUMULATIVE FINAL EXAM • DUE ON FRIDAY



Course Policies



Academic Integrity

Goodwin University values the principles of academic integrity. This means that our class expects students to think critically, to share their own 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. 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.



Expectations for Written Work and APA

Goodwin University courses adhere to the [APA style](#) of documentation of sources used by the American Psychological Association. Unless otherwise specified, assessment of assignments incorporates all aspects of APA style including but not limited to format, grammar, in-text citations, and references. You can find instructions and help with applying APA Style on the Academic Writer website <https://academicwriter-apa-org.goodwin.idm.oclc.org/6/>.

All written (text-based) assignments must be produced using software that is compatible with Canvas. Unless otherwise specified in the assignment instructions, be sure written assignments meet these basic expectations.

1. One-inch margin for all sides of the page (e.g., top, bottom, left, and right side of the page).
2. The font is 12-point.
3. The paper is double spaced.
4. The first page of the paper includes your full name and the date of submission.



Office Hours

Your success in my class is my main mission. I invite you to stop in during the office hours posted on the first page of this syllabus. You can also email me to schedule an appointment for another time. 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.



Time Management

Be sure to set aside specific time each week for reading, watching, or otherwise thinking critically about, engaging actively with assigned materials, and completing all assignments. Check the calendar in Canvas (LMS) for assignment due dates and use it to set soft due dates for when to start working on your

assignments. Be sure also to schedule time to complete assignments around your other schedule demands, such as work or family.



Timely Submission of Assignments

Balancing workload and meeting deadlines are an integral part of all professional careers. **All work in this course is due by XXXX ET, except for work in the last week.** Assignment due dates are listed in the **Learning Schedule Outline**. Be sure to make note of them so you can create calendar 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 Canvas gradebook. This practice provides you with real-time information on your grade for the course and maintains the integrity of the gradebook. Since due dates are listed in this syllabus, the need for extensions should be extremely rare.

Should you need to **request an extension**, email me **by XXX ET** 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 one week to complete this work.**



Communication and E-mail

Please check your Goodwin e-mail account regularly as this is the email address that will be used for all course communications. Please consult the syllabus before e-mailing with general questions about assessment-tasks / deliverables, expectations, and course logistics. I will read and respond to e-mails regarding course content or logistics **Fill in excluding, personal time, sick time, weekends and holidays**. I will not ordinarily respond to e-mails that are sent late at night, over the weekend, or on holidays. I will send course updates and announcements to your Goodwin email through Canvas.

Goodwin University Academic Policies, Resources, and Support Services

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

Academic Policies

Goodwin University academic policies may be found in the academic catalogs.

www.goodwin.edu/academics/catalogs

Student Affairs

Services, resources, and programs available to support Goodwin University students may be found on Student Affairs webpages.

www.goodwin.edu/student-affairs

Academic Support Services

The Goodwin University Hoffman Family Library webpages is where you can schedule tutoring sessions, access library databases, and find Academic Writer, an APA resource for writing academic papers.

www.goodwin.edu/library