

# MyMedicalTerminologyLab

School Name Rio Salado College, Tempe, AZ  
Course Name Medical Terminology for Health Care Workers  
Course Format Online

**Key Results** Data for this course show a strong positive correlation between average MyMedicalTerminologyLab homework grades and average MyMedicalTerminologyLab exam review quiz grades, as well as a strong positive correlation between average MyMedicalTerminologyLab exam review quiz grades and average MyMedicalTerminologyLab chapter exam grades.

## Submitted by

Dr. Angela Ambrosia, Faculty Chair, Allied Health

## Course materials

MyMedicalTerminologyLab and *Medical Language*, Turley

## Setting

Established in 1978 by the Maricopa County Community College District to serve non-traditional, distance learners, Rio Salado College is an urban two-year community college that serves approximately 57,000 students, with nearly 29,000 online. Students can choose from one of the 600+ online classes. Sixty percent of students are full-time, first generation college bound. Thirty-seven percent are over age 30, 43 percent identify as a minority, and 93 percent receive some financial aid.

Medical Terminology for Health Care Workers is a one-semester, three-credit entry level course required of all applied health students—more than 800 students each year. The course focus is on medical terminology used in health care, with a body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests.

## Official course competencies

1. Explain how medical terms are created.
2. Apply standard word guidelines to medical terms.
3. Use standard medical suffixes and prefixes accurately.
4. Describe the organizational components, directional terms, and anatomical position of the body.
5. Identify the major body system structures and their related word parts.
6. Identify the main functions of body organs and systems and their related word parts.

## Challenges and Goals

As a college with online courses at its core, Rio Salado tasked Angela Ambrosia with creating an online Medical Terminology class for the Allied Health Department. Time and economic constraints made the onerous mission of building a course from the ground up an impossibility, so Ambrosia turned to Pearson's MyMedicalTerminologyLab to provide key components. The program's guided lectures, self-paced study modules, eText, and interactive games offered the support that she sought for both instructors and students.

## Implementation

Ambrosia's online course makes substantial use of MyMedicalTerminologyLab for content delivery, homework, and assessment. Students generally use their personal computer and work at their own pace but are given due dates for assignments. Ambrosia uses the school's learning management system, RioLearn, to receive an alert when students are not keeping up with their work in the program.

Following a Pearson best practice, Ambrosia and her colleagues use the same master course for the many sections of the class. All assignments and assessments are the same, and every student receives the same course experience.

In accordance with another Pearson MyLab best practice, at the beginning of the semester Ambrosia supplies students with an *instruction page* to help them register quickly and get started on assignments. The instruction guidelines help students maintain consistency in the course and stay on task. The instruction page includes an outline of the course and information on each of the course components, enabling online students to follow a structured learning path:

- **Textbook.** How to locate the eText and guided lectures (narrated PowerPoint) in the multimedia library.
- **Study plan and practice quiz.** Practice the learning objectives to verify mastery and establish competencies.

- **Review lesson plan.** Remediation of the practice quiz.
- **Homework assignments.** Self-paced, interactive, and graded assignments with instructions for completion.
- **Exam review quiz.** Exam preparation.
- **Chapter exam.**
- **Additional resources:**  
Multimedia library with videos and animations.

Dynamic study modules for additional content review and mastery.

Study plan for review and practice.

- **Icons.** Reminder of MyLab specific icons used when studying and testing.

Students get one attempt at the MyMedicalTerminologyLab practice quiz after reading the textbook and before completing the homework. After taking the quiz, they are directed to the lesson plan for content review and remediation if needed. The scores for these quizzes are not recorded in the gradebook; instead, the results dictate the mastery level the student has reached prior to homework completion.

There are four interactive chapter assignments aligned with each of the 19 chapters: medical records, labeling, matching, and word surgery (dissecting words). Each assignment is worth four to 15 points, with each comprehensive chapter homework worth an average of 36 points (points vary by chapter).

Nineteen exam review quizzes are also assigned—one per chapter. Students have one attempt per quiz, and each quiz is worth 50 points. The final chapter assessment is a chapter exam

where again, students have just one attempt at completion. The chapter exam is worth 50 points.

#### Assessment

40 percent	MyMedicalTerminologyLab homework assignments (19)
30 percent	MyMedicalTerminologyLab review quizzes (19)
30 percent	MyMedicalTerminologyLab chapter exams (19)

#### Results and Data

Figures 1 and 2 are correlation graphs; correlations do not imply causation but instead measure the strength of a relationship between two variables. The corresponding  $p$ -value measures the statistical significance/strength of this evidence (the correlation), where a  $p$ -value  $<.01$  confirms the existence of a positive correlation between these two variables. Data show a strong positive correlation between the average MyMedicalTerminologyLab homework grade and the average MyMedicalTerminologyLab exam review quiz grade, where  $r = .65$  and  $p$ -value  $<.01$  (Figure 1).

Also noted was a strong positive correlation between the average MyMedicalTerminologyLab exam review quiz grade and the average MyMedicalTerminologyLab chapter exam grade, where  $r = .65$  and  $p$ -value  $<.01$  (Figure 2). The formative MyMedicalTerminologyLab homework is intended to help students identify where they are in their preparation for successfully completing the more summative review quiz and exam assessments (additional research is needed to develop and test this concept further). In addition, as a best practice, MyMedicalTerminologyLab is intended to help Ambrosia and

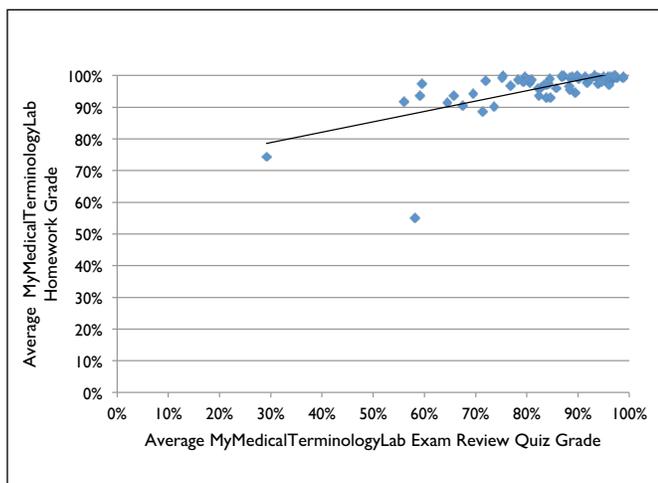


Figure 1. Correlation of Average MyMedicalTerminologyLab Homework Grade and Average MyMedicalTerminologyLab Exam Review Quiz Grade, Fall 2014 ( $n = 64$ )

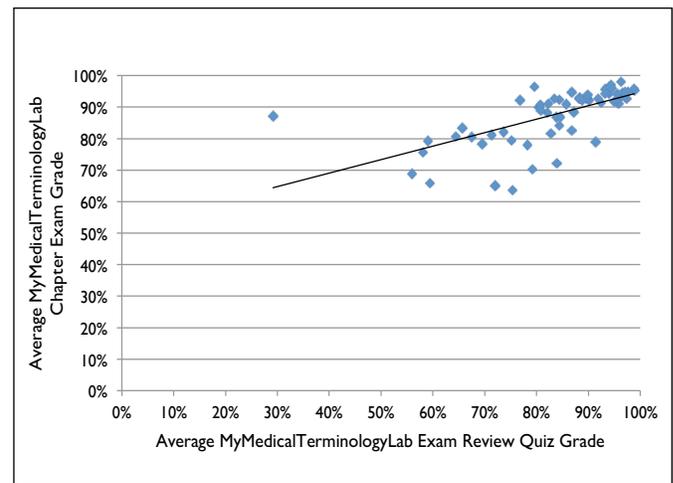


Figure 2. Correlation of Average MyMedicalTerminologyLab Exam Review Quiz Grade and Average MyMedicalTerminologyLab Chapter Exam Grade, Fall 2014 ( $n = 64$ )

*Providing students with a complete layout of the course’s processes and procedures at the beginning of the semester helps students begin working toward success.*

her colleagues identify students early on who are struggling and might be at risk of poor overall course performance.

A comparison of MyMedicalTerminologyLab exam review quiz grades and MyMedicalTerminologyLab chapter exam letter grades (Figure 3) generally shows that students who earned higher chapter exam grades scored higher on exam review quizzes:

- Students earning an A average on MyMedicalTerminologyLab chapter exams had a MyMedicalTerminologyLab exam review quiz score 16 percentage points higher than students earning a B average on the MyMedicalTerminologyLab chapter exams.

Data analysis includes only students who completed the course by receiving a final course grade greater than 0 percent ( $n = 11$  were not included in the analysis).

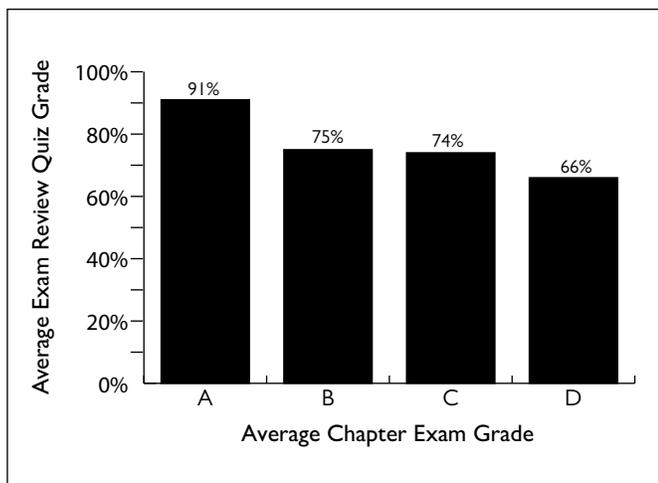


Figure 3. Relationship between Average MyMedicalTerminologyLab Exam Review Quiz Grades and Average MyMedicalTerminologyLab Chapter Exam Letter Grades, Fall 2014 ( $N = 64$ ,  $A = 38$ ,  $B = 15$ ,  $C = 7$ ,  $D = 4$ )

### The Student Experience

Ambrosia’s course had ended when this case study was initiated, so she was unable to conduct an end of semester student survey. She did, however, solicit the following student comments about MyMedicalTerminologyLab during fall 2014:

*I LOVE the study plan progress link!!*

*I felt like the study plan fully supported the assignments and prepared me to take the tests.*

*I like the links that say “Want to see what to do next? Click here for your study plan” that guide the student back to the plan.*

*I LOVE LOVE LOVE this search option [in the multimedia library] for the learning material! It is fabulous and really helps weed through all the available learning resources on one screen.*

*I liked the “Review” hyperlinks for each chapter’s grade, so I could navigate back to that learning objective if I needed to for more information.*

### Conclusion

In a fully online course, it is important that students get a quick, successful start. Ambrosia’s best practice of providing students with a complete layout of the MyMedicalTerminologyLab process and procedures is intended to help her students get into the program immediately and begin working toward success. Because online students have many time constraints and other outside responsibilities, Ambrosia believes that having the structure of knowing what order to proceed in and where to find the various resources, assignments, and assessments in MyMedicalTerminologyLab is essential and valuable information. Future integration of MyMedicalTerminologyLab and the school’s learning management system is on Ambrosia’s wish list!