

Product Name **MasteringA&P**

Course Names **Anatomy & Physiology I and II**

Credit Hours **Four (each)**

**Key Results** After changing MasteringA&P assignments from optional to required, success rates (A/B/C) and exam scores increased in both Anatomy & Physiology I and II.

### Text

*Human Anatomy and Physiology*, 9e, Elaine N. Marieb and Katja Hoehn

### Implementation

Anatomy & Physiology I and II are taken primarily by students who are currently enrolled in or planning to apply to the college's nursing program. The courses cover the ten organ systems of the human body and include lecture and lab.

Although these courses are not prerequisites for admission to the nursing program, successful completion is a positive indicator to the admission committee. As a result, many students take these courses prior to applying to the program. Because a final course grade of C or above in each course is required in order to graduate from the program, success in these courses is key to achieving a student's nursing career goals.

Beginning with the fall 2010 semester, MasteringA&P was included with both courses' textbook packages. At that time I did set up MasteringA&P homework, but I did not require completion of the homework nor did I give credit for work done in MasteringA&P. Few students did the optional assignments and virtually none reported using the Study Area or any other MasteringA&P resources.

In spring 2012 I began requiring MasteringA&P homework as part of the course assessment. I now require one homework assignment per chapter. Assignments take about 30 minutes to complete, and I use a mix of question types. Each week, I review the gradebook diagnostics in order to identify missed questions and common misconceptions and then I review those concepts in class.

### Assessments

50 percent	Lecture exams (five)
25 percent	Lab practicals (four)
15 percent	MasteringA&P homework
10 percent	Paper-and-pencil chapter questions

*“MasteringA&P was a good reinforcement of the textbook. When I needed additional study options, they were at my fingertips.”*

—Student

### Results and Data

A review of success rates and exam scores indicates an increase in student gains since requiring MasteringA&P homework.

- Of those students who completed Anatomy & Physiology I in spring 2012, 100 percent earned an A, B, or C, compared to 85 percent and 77 percent respectively in fall 2011 and spring 2011 (when MasteringA&P was optional).
- The success rate (A/B/C) for those students who completed Anatomy & Physiology II has significantly increased since MasteringA&P was required (figure 1).
- During spring 2012 in Anatomy & Physiology I, in four out five exams, the mean exam score was higher than in semesters when MasteringA&P was not required (figure 2).
- In Anatomy & Physiology II, mean exam scores have consistently been higher over the course of multiple semesters since MasteringA&P homework has been required (figure 3).

In addition, Anatomy & Physiology I assessment data indicate a strong correlation between homework and exam scores (figure 4).

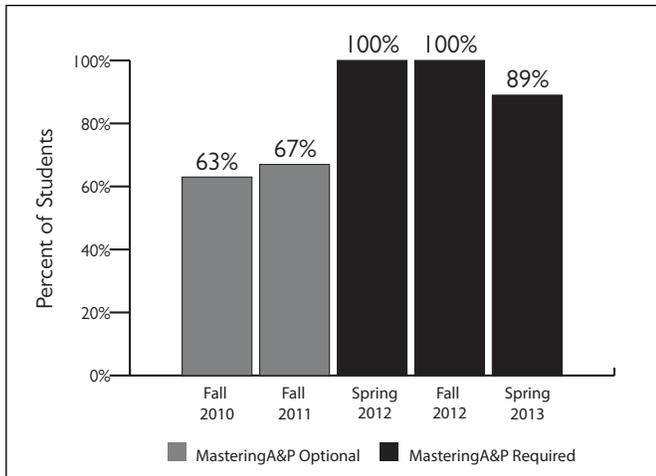


Figure 1. Anatomy & Physiology II Success (A/B/C) Rates, Fall 2010–Spring 2013 (Fall 2010 n=8, Fall 2011 n=9 Spring 2012 n=12, Fall 2012 n=12, Spring 2013 n=18)

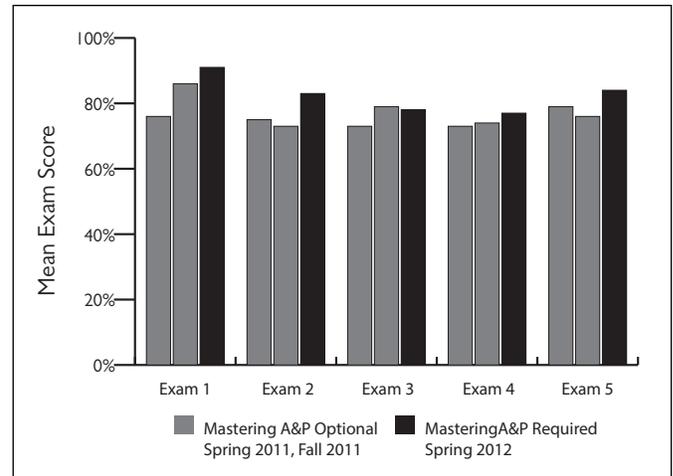


Figure 2. Anatomy & Physiology I Mean Exam Scores, Spring 2011–Spring 2012 (Spring 2011 n=13, Fall 2011 n=13, Spring 2012 n=9)

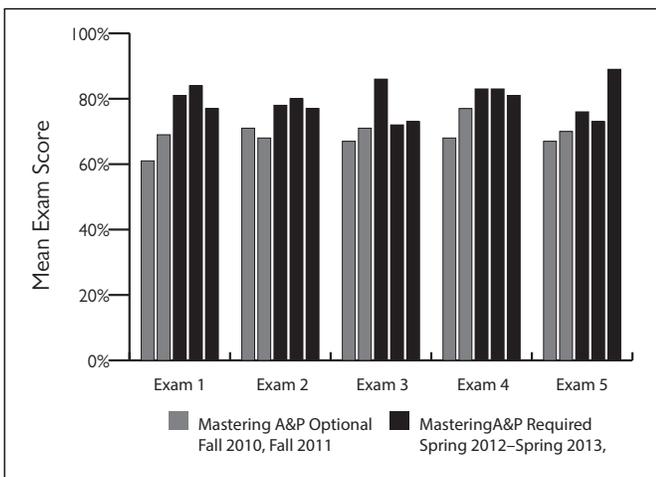


Figure 3. Anatomy & Physiology II Mean Exam Scores, Fall 2010–Spring 2013 (Fall 2010 n=8, Fall 2011 n=9 Spring 2012 n=12, Fall 2012 n=12, Spring 2013 n=18)

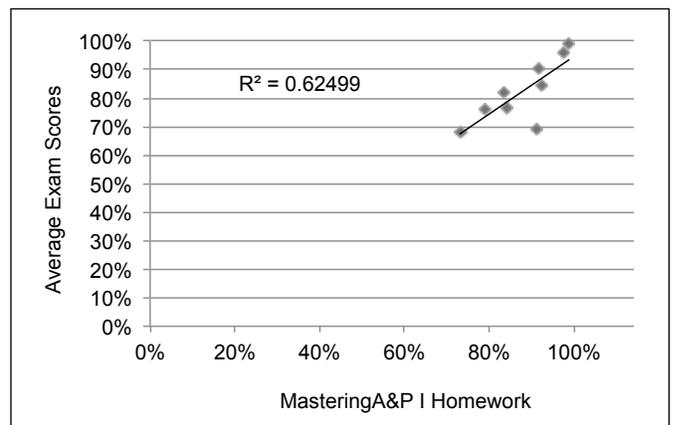


Figure 4. Correlation of MasteringA&P Homework to Exam Scores, Spring 2012

## The Student Experience

A spring 2013 survey of Anatomy & Physiology II students shows that the majority of students appreciate the value of MasteringA&P:

- 62 percent agreed or strongly agreed that MasteringA&P positively impacted their test scores.
- 69 percent agreed or strongly agreed that MasteringA&P increased their understanding of the course concepts.
- 69 percent agreed or strongly agreed that they would recommend Mastering for other courses.

Students tell me that because they are required to log into MasteringA&P to do weekly homework, they also spend time in the Study Area or using other MasteringA&P resources.

## Conclusion

Prior to requiring MasteringA&P homework, when I asked students what concepts they were struggling with they generally weren't able to tell me. Now that students complete required homework, both they and I can identify any concepts they don't clearly understand. Students are more likely to ask questions about what they don't know, and I am able to reinforce during class time those concepts that I've identified via the gradebook diagnostics as troublesome. Students' study efforts are more focused and, as a result, they're achieving more success in both Anatomy & Physiology I and II.

*Submitted by Amy Ryan  
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