## MyCulinaryLab

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| School Name | Alamo Colleges, St. Philip's College, San Antonio, TX |
| Course Name | Introduction to Foods |
| Course Format | Hybrid, online |

**Key Results**    Data show a very strong positive correlation between average MyCulinaryLab grades and average test grades: students who earned higher average MyCulinaryLab grades also earned higher average test grades.

**Submitted by**
Cris Goloby, Chef and Instructor

**Course materials**
MyCulinaryLab and *On Cooking,* Labensky and Hause

### Setting

St. Philip's College, part of the Alamo Community College District, is a public community college with two major campuses and seven subsidiary locations. The school's main campus is in downtown San Antonio; another campus is located outside San Antonio and serves as a hub for technical training programs. The school serves more than 10,000 students on campus, plus more than 7,000 via distance learning programs. A full 85 percent of its students attend part-time, 40 percent are more than 25 years of age, 11 percent are first-time college students, and 71 percent identify as minority (51 percent as Hispanic). It is the only college to be federally designated as both a historically black college and a Hispanic-serving institution.

Introduction to Foods is a one-semester, three-credit course required of all culinary arts students and an open elective for all other students. The course introduces students to the composition of food and the chemical and biological changes that occur during food storage and processing. Course topics also include preparation techniques and selection principles. Students who successfully complete the course will be able to explain the aesthetic values applied to food preparation; acid/base characteristics; the use of heat in cookery; protein properties; the composition of milk, egg, cheese, meat, and fish; the properties of starch foods; what makes a solution; the definition of carbohydrates, lipids, and objective food analysis; the standards of fruit and vegetable selection; approved measuring techniques; microwave cookery, and cooking principles for cereal, pasta, starch, plant protein, fruit, vegetables, cheese, poultry, fish, meat and sauces; and the principles of dough products, quick and yeast breads, and cooking with fat.

### Challenges and Goals

In fall 2012, Introduction to Food had too many students and not enough seats. Cris Goloby, chef and instructor sought a way to make the course more available and at more convenient times for its largely part-time student population. Goloby and her colleagues created hybrid and online sections and implemented MyCulinaryLab both to create uniformity across sections and to address the alternate learning styles of their diverse student body.

### Implementation

Goloby requires students to use MyCulinaryLab videos, quizzes, and tests.

- MyCulinaryLab videos. Videos walk students through proper culinary techniques and are used both for homework assignments and during lecture.

- MyCulinaryLab quizzes. Weekly quizzes are prebuilt, made available to students each Monday, and are due the following Monday. Students are allowed unlimited attempts with no time limit; the highest grade earned is scored. Completion is a prerequisite for the MyCulinaryLab test.

- MyCulinaryLab tests. Prebuilt tests are made available to students each Friday and are due the following Monday. Tests are not timed; students are allowed one attempt.

In hybrid sections, in-class assessments may include additional tests, a critical-thinking assignment, a writing assignment, and/or a scavenger hunt in which students visit a physical grocery store—all of which are linked to course learning objectives.

The final exam is optional. It comprises two questions from each chapter and is worth 100 points. Students may choose to replace their lowest test score with the final exam score.

Culinary arts students must earn at least a B in the course to receive credit and progress to culinary lab work.

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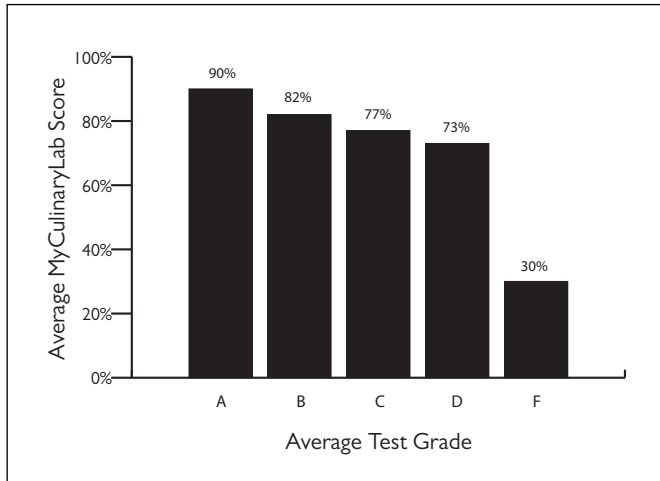


Figure 1. Grade Distribution of Average Test Grades and Average MyCulinaryLab Grades, Spring 2015 (*n* = 53)
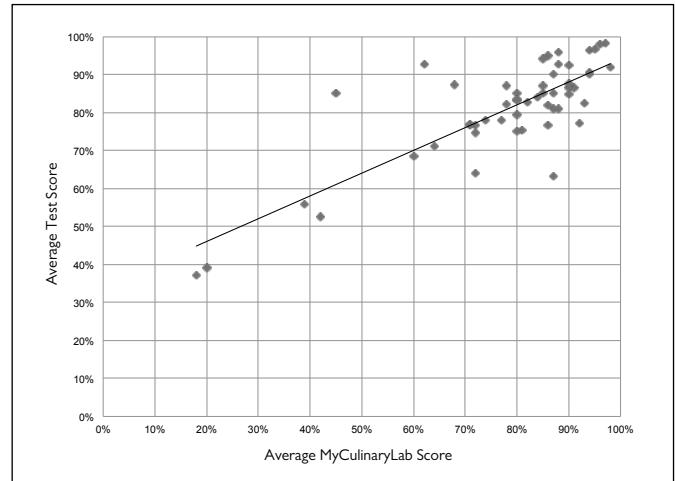


Figure 2. Correlation between Average MyCulinaryLab Scores and Average Test Scores, Spring 2015 (*n* = 53)

### Assessments

50 percent      MyCulinaryLab homework, quizzes, tests

50 percent      In-class exams, projects, written assignments

### Results and Data

An assessment of average MyCulinaryLab grades and average test grades show that students who earned higher average MyCulinaryLab grades also earned higher average test grades (Figure 1).

**81%**   Average test grade

**78%**   Average MyCulinaryLab grade

Correlations do not imply causation but instead measure the strength of a relationship between two variables. The *p* value measures the statistical significance/strength of this evidence (the correlation); $p < .01$ is considered strong evidence. Figure 2 shows the correlation between average MyCulinaryLab scores and average test scores; a very strong positive correlation exists where $r = .81$ and $p < .01$. For students, MyCulinaryLab scores are intended to identify where they stand in terms of successfully completing both future tests and the course itself (additional research may develop and test this concept further). As a best practice, MyCulinaryLab scores are intended to help Goloby quickly identify students who are struggling and might be at risk of poor course performance. This analysis does not include two students who stopped working in the course after the second test and did not finish the course work.

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## The Student Experience

In spring 2015, students were asked to participate in a voluntary, end-of-semester survey administered by Goloby. Survey questions covered students' use of MyCulinaryLab and its impact on their learning and assessment. Of the students who responded:

**86%**  Agree or strongly agree that use of MyCulinaryLab positively impacted their quiz and exam scores.

**81%**  Agree or strongly agree that their understanding of the course material increased as a result of using MyCulinaryLab.

**71%**  Agree or strongly agree that they would recommend MyCulinaryLab to other students for courses in which it is available.

On the same survey, when asked what they liked best about MyCulinaryLab, student answers included the following:

*"I liked that there were videos we could watch."*

*"I liked the [learning] modules and the multimedia area in MyCulinaryLab."*

*"I liked the availability of the eBook and the videos that expanded on the eBook's information."*

## Conclusion

Adding MyCulinaryLab to her online and hybrid sections has enabled Goloby and her colleagues to offer the course to more students at more convenient times. In addition, the program provides students with homework and other course assessments that offer data-driven guidance and help students better understand difficult topics.

MyCulinaryLab's interactive learning tools helps Goloby and her colleagues address the diversity of their online audience by appealing to a wide range of learning styles, including visual, practical, and auditory. Since students are unlikely to do work unless required to do so, Goloby uses the program's prerequisites to ensure that her students stay on track. This use of prerequisites is a best practice that Goloby encourages for all MyCulinaryLab users.

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This user-report case study documents implementation practices and evaluates possible relationships between program implementation and student performance. These findings are not meant to imply causality or generalizability beyond this specific instance. Rather, findings from this study demonstrate associations that are potentially useful for further theory testing in future experimental studies. For this case study, a mixed-methods design was applied, and the data collected included qualitative data from interviews, quantitative program usage analytics, and student performance data. An open-ended interview protocol was used to guide data collection.

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