

Ensure Students Are Learning: Faculty Descriptions of Innovative Teaching Practices

Interactive Science Workbook Provides Foundational Support

Innovative Teaching Practice Description:

Based on student feedback, an instructor developed a prep workbook to provide students with fundamental background information for college-level science courses—specifically human physiology, microbiology, and general biology. The instructor uses this workbook during the first two weeks of class to ensure that students have essential background information before moving forward with the course material. The idea is to help students quickly remediate in science. Designed to be interactive, the 180-page prep workbook includes quick problem-solving assignments that follow each concept overview. Some of the activities for topics like anatomy include practical techniques for employing memorization and developing study skills. The book also includes QR codes that link the printed material to supplemental videos.

To ensure the students are actually completing the workbook and understand the material, all students are required to complete chapter quizzes using the college's learning management system. The chapter quizzes pull from a larger question bank to prevent students copying answers from one another. These chapter quizzes (collectively worth the same as an exam score) provide the necessary incentive for students to comprehend the material.

The instructor began developing this book by surveying students in biology classes about their interest in a workbook. The survey also asked students to share topics on which they felt they needed additional help. After completing a list of potential topics for the workbook, the instructor surveyed faculty at the college to determine if those topics were similar to the topics on which they felt their students needed remediation.