Mc Graw Hill connect®

Success Story

University of Houston



Challenge

Enhancing Student Engagement and Personalized Learning

Solution

Connect for Biology, *Biology* by Robert Brooker, Inclusive Access

Result

Improved Efficiency and Student Performance

> **With Connect, students aren't just memorizing facts—they're learning how to think critically and apply their knowledge.**



Lisa Farmer, PhD

Instructional Associate Professor, Department of Biology and Biochemistry

The Challenge

Dr. Lisa Farmer faced significant challenges in her Biology for Science Majors course, which enrolls approximately 285 students per section and over 3,000 students annually. The previous platform she utilized was static, with assignments that lacked diversity and depth, making it easy for students to find answers online. Additionally, there were recurring issues with timely delivery of custom materials.

Dr. Farmer was introduced to McGraw Hill's Connect through a symposium, where she appreciated the active learning approach of Robert Brooker's texts and their alignment with the Vision and Change initiative. After successfully implementing Connect in her Genetics course, she proposed its adoption for the biology sequence for science majors. Her primary goals were to offer varied and relevant activities, provide customized feedback, and ensure students could easily register and recognize the value of using Connect.

> **"One of my biggest challenges was getting students to engage with course materials in a meaningful way. Connect offered an active learning approach that allowed them to interact with the content instead of passively consuming it."**

The Solution

Connect addressed Dr. Farmer's objectives by offering a user-friendly interface with diverse assignments, including adaptive learning tools and interactive activities that provided personalized feedback. The integration of SmartBook® assignments allowed students to receive metacognitive feedback and custom study guides, enhancing their learning experience. The eBook's embedded videos, definitions, and note-taking features further facilitated student engagement. Dr. Farmer observed that Connect continually evolves to support modern pedagogical approaches, reinforcing her commitment to the platform.

> **"With Connect, I can provide students with personalized feedback at scale, something that was nearly impossible before. It helps them understand where they need to focus their efforts."**

Implementation

Dr. Farmer allocated 15% of the grade to each of four exams administered with Connect; 25% to in-class active learning activities; 5% to Connect homework assignments; 10% to attendance and participation. SmartBook activities were extra credit (5% per midterm), resulting in an 80-85% completion rate. Connect homework assignments consisted of content from the question and exam banks, including Graphing Interactives when relevant.

> **"SmartBook assignments are a great way to reinforce learning in a low-stakes manner. The extra credit approach encourages students to participate without adding pressure."**





Inclusive Access

In Spring 2022, the University of Houston piloted the Cougar Textbook Access Program (CTAP), an Inclusive Access initiative. Dr. Farmer advocated for her courses' inclusion to reduce material costs and ensure first-day access for students. The program addressed challenges related to students' financial constraints and delays in obtaining materials. With a flat fee of $299 per semester, CTAP provided economic relief, especially for STEM students. Dr. Farmer noted that CTAP significantly reduced student complaints and requests for assistance, streamlining the start-of-semester process. She observed that inclusive access promoted equity, allowing all students to begin with the necessary materials, regardless of their financial situations. The transition to digital materials was well-received, with surveys indicating a student preference for digital over print resources.

> **"Inclusive Access has eliminated the financial hurdle that often prevents students from getting their materials on time. Now, everyone starts on equal footing from day one."**

The Results

The adoption of Connect transformed Dr. Farmer's grading process, allowing her to focus solely on evaluating in-class activities, as Connect automated other assessments. Students expressed appreciation for the SmartBook activities, utilizing the Recharge feature for additional practice. The challenging nature of homework and graphing assignments was acknowledged, but students recognized their value. Notably, there was a marked decrease in student issues and complaints, indicating a seamless experience with Connect. Dr. Farmer observed that Connect's diverse question types and activities fostered student acceptance and appreciation of the practice opportunities provided.

Dr. Farmer emphasized that Connect's resources enhanced students' critical thinking and analytical skills, contributing to improved exam performance. The platform's practice tools were deemed invaluable for reinforcing understanding and skill-building. Dr. Farmer encouraged students to collaborate on Connect homework assignments by making their best, most honest attempts at solving problems together. She believes peer support is far more valuable than searching for answers online. Additionally, Connect's resources bolstered student confidence, promoting retention even during challenging periods. This approach balanced external coursework with in-class activities, encouraging students to engage with the material and recognize the value of consistent practice.

> **"Students are seeing the value of their work in real-time. They appreciate the structure, and it's reflected in their performance."**

Conclusion

Dr. Lisa Farmer's integration of McGraw Hill's Connect into the University of Houston's Biology for Science Majors course has significantly enhanced student engagement, personalized learning, and overall course efficiency.
The platform's adaptive tools, interactive assignments, and seamless integration with Inclusive Access initiatives have addressed previous challenges, leading to improved student performance and satisfaction. Dr. Farmer's experience underscores the transformative potential of Connect in modernizing biology education for large university courses.

Instructor Bio

Dr. Lisa Farmer serves as an Instructional Associate Professor in the Department of Biology and Biochemistry at the University of Houston. She earned her PhD in Genetics from the University of Wisconsin-Madison and completed postdoctoral research at Rice University and Baylor College of Medicine. Dr. Farmer is dedicated to introducing students to biological concepts, fostering enthusiasm, and developing critical analytical skills.

Setting

The University of Houston (UH), established in 1927, is a leading public research institution located in Houston, Texas. With an enrollment exceeding 47,000 students across 276 undergraduate and graduate programs, UH awards over 11,000 degrees annually. The university is recognized for its diverse student body, representing more than 125 nations, and is classified as a Tier One institution by the Carnegie Foundation.

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