

Required Biochem Class Live-Streamed this Summer

Collaboration with Union College makes required credits easier to obtain

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David Nowack, chair of the Department of Chemistry & Biochemistry, presents during a ChemSem event earlier this year. Nowack taught the special biochemistry class offered via livestream this summer in collaboration with Union College. (Photo by Heidi Ramirez)

By: Chris McLean-Wheeler

From May 9 to June 3, 2016, Andrews University collaborated with Union College in Lincoln, Nebraska, to allow Union students to remotely attend a biochemistry course offered on Andrews' campus. The course, Biochemistry I, taught students about molecules and chemical pathways that sustain life.

“It is a capstone chemistry/biochemistry class for biochemistry majors and a required class for many students entering medical, dental and pharmacy schools,” said David Nowack, chair of the Department of Chemistry & Biochemistry and instructor for the course.

Planning began in December when Carrie Wolfe, chair of the Division of Sciences at Union College and a former student of Nowack's, recognized her students' need for a summer biochemistry class. Janine Lim and Alayne Thorpe, from the School of Distance Education &

International Partnerships, worked closely with Wolfe and Nowack to make the online course a reality.

Assisting on the technological front was Dan Hamstra, director of Telecommunications at Andrews University. Coordinating with his Union College counterpart, Debbie Unterseher, he set up an interactive streaming classroom using Polycom and LifeSize technology. Additionally, an assistant attended most class days in order to help with tasks that needed to be done remotely.

“Both the technical and the human interaction portions of the collaboration went well,” reported Nowack. “The only changes would be to increase the interactivity of the live streaming. The three-hour per day lectures, tests and quizzes need to be broken up more with additional learning exercises to maintain student engagement.”

The Biochemistry I syllabus describes the course’s purpose, stating that students will learn principles of chemistry that will enable them to “categorize, interrelate and, ultimately, predict the behavior of the chemicals and their reactions that exist within prokaryote and eukaryotic cells that form the basis for life.” These skills will be invaluable for healthcare careerists and chemists, empowering them to contribute to society in the future. The syllabus explains that “the study of biochemistry offers the best avenue for improving the health of humankind and for understanding the dynamic chemical relationships that exist among humankind, animals and plants.”

“This particular collaboration is valuable to Union College and other institutions because of the unique and important content of the class,” states Nowack. The topic is crucial because Biochemistry I is part of the MCAT—Medical College Admissions Test—which means it is a prerequisite for the test. Unfortunately, Biochemistry I is not always offered during the summer; Andrews University was the only Adventist school that had it as an option.

“Making this class available to other universities is valuable for pre-med and pre-dent students,” says Nowack. “By collaborating with us, Union was able to provide this class material in a familiar environment for their students.”

Nowack adds that they have plans to aggressively advertise the summer course at University of Notre Dame, Indiana University South Bend and other colleges in the Michiana area. “It is a unique class offering and we want to make sure that other interested students are aware of this opportunity.”

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