



Brave New World: Putting Science Courses Totally Online

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Ocean County College (OCC) was one of the first community colleges in the United States to develop Anatomy and Physiology (A&P) and other science courses totally online. The content and laboratory are being directed via distance learning.

The decision to use the home based laboratory kit instead of a virtual laboratory experience was based on concerns expressed by many four year colleges and universities. They much prefer allowing students to transfer the Anatomy and Physiology course if it includes a hands-on laboratory experience. The home based kit allows a student to have a hands-on laboratory experience and helps to hone their critical thinking skills via the trial and error that is manifest in laboratory practice. Hands-On Labs, Inc. of Denver Colorado had been producing LabPaqs for variety scientific disciplines and supplying them to a number of online science programs in higher education. They were the key to our success in bringing a total of 14 online science courses with a laboratory offered completely online. We also utilized McGraw-Hill's E-pack courses wherever possible.

Anatomy and Physiology, Microbiology, and Chemistry are cornerstone courses in the pre-nursing curriculum and are now accessible to individuals who are limited by time, distance and outside responsibilities. OCC's award winning One Day per Week Online/Web-assisted Nursing Program, which was partially funded by a Robert Wood Johnson Foundation grant, allows students to attend clinical training one day per week while the didactic portion is delivered online. This online A&P course, Microbiology and Chemistry complements this program and has become part of a national model to attract

individuals who could not otherwise pursue nursing studies while working full-time. This has the potential to help alleviate the critical shortage of nurses.

Student surveys confirmed that students in the online A&P course found it to be a convenient way to learn and eliminated coming to campus three days per week. Course level assessment has shown it to be comparable to results from face-to-face assessments. Student response has been overwhelmingly positive; in addition to Ocean County students, students from other counties and states have registered for the courses.

The success of the Anatomy and Physiology, Microbiology and Chemistry courses led OCC to develop other main line science courses in chemistry, biology and physics. This has been a tremendous success and has alleviated the pressure to build another building to keep up with demand for laboratory based science courses.