Creating a Self-Paced Prerequisite Online Course

Project Impact Report

Issue/Problem

The College of Computing requires students to have prequiste knowledge of computer science upon entry to graduate programs. Standardization and delivery of this prerequisite knowledge becomes critical to attact more qualifying students with undergraduate majors other than computer science of a wider demographic, and from all over the world.

Response

The solution was a self-paced accelerated introduction to computer science (CSSP 201) offered through the university's learning management system (LMS), Blackboard. The asynchronous course would provide new students with the flexibility and speed that is desired. The online course included short instructor videos, lessons, labs, discussions, quizzes, and a final exam. It effectively communicates key concepts and engages learners. Topics were determined by the College of Computing.

Participants

Project Manager:	Carlos Salinas
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Project Team Members:	Muhammad Sohail Khan, Kelly Roark, Lauren Woods, Jose Guzman, John Kazibut
Key Departments:	College of Computing, Center for Learning Innovation, and Academic Technology Services

Impact

CSSP 201, the new fully asynchronous online course, is a collaboration of College of Computing, and the university's supporting departments for online learning. The course enhances accessibility for incoming graduate students, offering flexibility in learning and accommodating diverse learning styles. The high quality video content leverages advanced video capture and editing technologies to make the it visually appealing and effective, improving the overall learning engagement.

Providing foundational knowledge in computer science may contribute to improved graduate student retention rates by ensuring students are better equipped for the demands of their academic programs.

The Measure	Value	Context
Course Completion	>80% (forecast, 20 students per term)	Assessing the effectiveness of the program, the number of incoming graduate students who successfully complete the online introductory course
Usage Analytics	100% captured	Student engagement with the online course, tracking factors such as video views, participation rates, and completion times

Overall, this project redefined the onboarding experience for incoming graduate students, leveraging technology and collaboration to provide a robust foundation in computer science that aligns with the diverse academic needs of Illinois Tech.