
GC 2012-5636: SIX YEARS OF SUCCESS IN IMPLEMENTATION OF A 3 + 1 TRANSFER PROGRAM IN ENGINEERING TECHNOLOGY BETWEEN UNIVERSITIES IN CHINA AND THE UNITES STATES

Prof. Scott I. Segalewitz, University of Dayton

Scott Segalewitz, P.E. is Chair of the Department of Engineering Technology at the University of Dayton. Since 2000, he has been responsible for leadership of five baccalaureate engineering technology programs, and approximately 300 full and part-time students. Under his direction, the Department of Engineering Technology has enhanced the use of learning technologies, expanded its articulations with international institutions and local community colleges, and initiated a program for video/web conference delivery of upper-level engineering technology classes to location-bound students. His areas of interest include distance and asynchronous learning, technical communications, technology in education, international education, and continuous improvement in the learning environment. Prior to this position, he spent fourteen years as Program Chair of Biomedical Engineering Technology at Penn State University. He earned an MS degree in Biomedical Engineering, a BS degree in Electrical Engineering, and is a licensed Professional Engineer. Segalewitz is active in professional societies including the American Society for Engineering Education, (ASEE), and the Institute for Electrical and Electronic Engineers (IEEE). He is has also served as a program evaluator for ABET since 1991, spent four years on the TAC of ABET Commission, and is the immediate past chair of the ASEE Electrical & Computer Engineering Technology Department Heads Association (ECETDHA).

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Scott Segalewitz
University of Dayton

Abstract

An Agreement of Cooperation between Shanghai Normal University (SHNU) and the University of Dayton (UD) to establish transfer and joint BS programs in Electronic Engineering Technology (EET) and Manufacturing Engineering Technology (MFG) was signed in 2003. The plan initially called for development of a “3 + 1 + 1 course” transfer program whereby the first three years of the program are taught in China by Shanghai Normal University faculty, and the last year of the program is taught by University of Dayton faculty in Dayton, OH. This was to be followed by one course to be taught by University of Dayton faculty in China. At the conclusion of the program, students would receive baccalaureate degrees from both Shanghai Normal University and the University of Dayton.

The principal agreement was signed by administrators at the respective institutions, while faculty were charged to later develop the details. Since this program was on a “fast-track” to implementation, faculty at Shanghai Normal University and University of Dayton worked simultaneously to build relationships, modify curricula, and mentor enrolled students. The first cohort of students was recruited and enrolled in the joint degree program at Shanghai Normal University just five months following signing of the agreement, and began their Junior year at the UD in the Fall 2006 semester.

During the initial years of the program, faculty at UD closely assessed the students’ qualifications and outcomes, and either recommended changes in the curriculum to SHNU, or modified the UD curriculum for SHNU students. The program morphed from the initial concept to a “3 + 1” program where students study for three years at SHNU, followed by one calendar year (three semesters) at UD.

Teaching in higher education is quite different between China and the United States. To continue development of the program, SHNU annually sends faculty to UD for a semester to learn about teaching and student learning in the United States. Additionally, UD annually sends faculty to teach at SHNU for a 4-5 week period to help prepare students for learning technical courses in English, and to better prepare them for learning at an American institution.

Today, over 100 students in six cohorts have completed the joint program. The success rate of the program is very high with nearly 50% of the students continuing on to graduate school, and the remaining returning to China to work in a technical field. The program continues to evolve as SHNU students increase their technical education while UD students learn about working on diverse multinational teams.

Proposed session track: Curriculum and Laboratory Development