

The Joint Academic Program Between Jacksonville State University and Taizhou University: From Inception to Implementation

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ABSTRACT

Jacksonville State University, located in Jacksonville, Alabama, is a state-supported, regional, coeducational institution. Three years ago, representatives from Jacksonville State University (JSU) began speaking with specific staff and faculty members from Taizhou University (TU) located in Linhai, China. Conversations involving possible university collaborations took place and resulted in a signed memorandum concerning a dual-degree computer science program. This paper describes some of the evolving collaborative undertakings with other Chinese universities as well as the on-going experiences and challenges encountered in the implementation of the dual-degree program with Taizhou University.

Keywords: global collaboration, academic joint programs, accreditation, Jacksonville State University, Taizhou University.

1. INTRODUCTION

Charlton and Andras describe globalization as some entity that refers to the increasing dominance of an international network of communications—especially in the economy, but also in social systems such as politics, the mass media, and science and technology [3]. In the same essay, they further argue for the need to standardize basic structures and the continuous specializations of advanced functions in science education.

Globalization has inevitably impacted the relationship between higher education and the economic growth of a country. The need for talented and skilled individuals managing businesses abroad gives higher education a

major role in the supply of this resource. Higher education shapes and is being influenced by the configuration of regional trading blocs and is becoming similar across countries [4]. Colleges and universities face the dilemma of preserving the legitimacy of their national culture when entering the global market with various beliefs and behaviors [14].

Globalization is influencing the educational market and the situation is changing rapidly in the recent years. The theme of academic globalization is becoming more and more important for many universities around the world, as a process that helps the student graduation experience (by creating an expert with new characteristics that cannot be provided in their home university, or even in their country), and the university research programs (allowing professors and researchers from another university, even from another country, to collaborate or even to lead a research program) [1].

In recent years the global university system has been transformed by the new technology and political trends. The Internet and lower cost international travel have made it easier to collaborate with academic colleagues in other countries. In addition, the end of the Cold War has expanded the participants and the range of points of view in international academic conferences. As a result it is possible now to think in terms of a global network of universities with local nodes rather than in terms of separate institutions [16].

Three years ago, representatives from Jacksonville State University began speaking with specific staff and faculty members from Taizhou University (TU) located in Linhai, China. Conversations involving possible university collaborations took place and resulted in a signed memorandum concerning a joint degree program.

Beginning Fall 2010, JSU welcomed its first group of TU students to further their comprehension of the English language and their study in the field of computer science. The format of the program is called a 1-2-1, whereby Chinese students complete their first year of study at TU, come to JSU for two years of study, and complete their dual-degree in TU.

The first summer the Chinese students spend in Jacksonville will involve an intensive session of study at JSU's English Language Institute (ELI). The first group of Chinese students is set to arrive at the ELI in Summer 2010. After completion of the entire program's course of study, these students will have earned a Bachelor of Science in Computer Science from both TU and JSU.

In this paper, we will describe some of the developing academic partnerships with several Chinese universities and the experiences and challenges we have encountered in developing the dual-degree program with Taizhou University.

2. INSTITUTIONAL PROFILES

Jacksonville State University (JSU): JSU, located in Jacksonville, Alabama, is a state-supported, regional, coeducational institution. Drawing students primarily from Northeast Alabama, the University is committed to providing a wide variety of undergraduate programs to a diverse population that includes many first-generation college students. The enrollment at JSU during the past five years averages 8896. In 2005, roughly 24% of the student population was African American, Hispanic and American Indian and more than half (59%) were women. These enrollment figures put JSU in an excellent position to broaden and enable the participation of members of the underrepresented groups in the STEM disciplines. JSU is primarily a teaching university. It takes pride in its ability to produce quality graduates who undergo rigorous theoretical as well as practical mentoring. It is committed to providing appropriate instructional facilities and resources to assure that students have experience with the most recent technology.

Taizhou University (TU): TU is located in Taizhou city, the new coastal city in east China. TU is a comprehensive university. With a long history of running the school, TU started in 1907. During decades of practicing, the university is in possession of solid foundation and ample experience in terms of teaching and research. At present, there are more than 7,000 students and more than 800 faculty members. There are 13 departments or colleges at TU. The university has 9 branches of subjects, including literature, natural science, engineering, management, medical and education, etc, covering 38 Bachelor's Degree programs and 16 Associate-degree programs. TU has been active in carrying on international exchange and

cooperation and has maintained friendly relationships with foreign universities, such as Lincoln University of New Zealand, Chodang University of the Republic of Korea, and Magdeburg-Stendal Applied Science & Technology University of Germany. Every year outstanding faculty members will be sent to overseas institutions as visiting scholars for further study and research, which will broaden their horizon [13].

Huaqiao University (HU): HU is a national university located in Quanzhou and Xiamen, Fujian province, China. HQU was founded in 1960, with support from the late Chinese premier and historical figure Zhou Enlai for students of overseas Chinese backgrounds (Hong Kong, Taiwan, Macau, Singapore) to pursue tertiary education in their ancestral homelands. This university is situated in a famous overseas Chinese hometown - Quanzhou city, in Fujian province. The university has two campuses, one is the main campus in Quanzhou and the other one is the new campus in Xiamen. Since the founding of the university 45 years ago, the University has graduated more than 76,000 students, of which 36,000 are from overseas. The University has now 24 000 full-time on-campus students, including 3,000 overseas students from 29 countries and regions such as Taiwan, Hong Kong, Macau, Malaysia, the Philippines, Indonesia, Thailand, Japan, United States and Argentina [9].

Zhejiang University of Media and Communication (ZUMC): ZUMC is a highly professional institution of higher education in China in the area of media and communications. The University was born 30 years ago when China reached out to embrace the world. The majority of their graduates would work for media organizations such as radio and TV, newspapers and magazines, advertising companies and film producers, etc. In recent years, strategic steps have been taken to open up international channels for academic activities such as teaching, researches, cross-continental conferences and jointly conducted programs. ZUMC has established firm and constructive relations with a number of overseas universities in the area of student degree programs, teacher training and degree programs and joint research projects. ZUMC will make constant endeavor to provide the best learning and teaching environment for both domestic and international students and scholars [18].

In April 2010, one of the authors of this paper visited Huaqiao University and Zhejiang University of Media and Communications. One of the many objectives of the visit is to explore the possibility of expanding the JSU-TU dual degree CS program to the two universities. A memorandum of understanding was exchanged with Huaqiao University and an exploratory talk was made with the Department of Information Technology at ZUMC. Also, in Summer 2010, a number of English

teachers from TU visited JSU for an intensive English proficiency workshop.

A graduate degree program in English, specifically for ZUMC students, is initiated at JSU during the 2010-2011 academic year. Furthermore, in August 2011, ZUMC visited JSU to explore JSU's graduate program in information technology. As a result, two graduate students from ZUMC will commence their studies at JSU in the Fall 2011 semester.

3. DESIGN CONSTRAINTS AND ACCREDITATION FACTORS

The design of the dual-degree computer science program is first described in our previous work [15] and we would like to reiterate it here for the sake of clarity. It is guided by Jacksonville State University's (JSU) accreditation constraints and the current University mission and department objectives. The two accreditations affected by this program are those from the Southern Association of Colleges and Schools (SACS) and the Accreditation Board for Engineering and Technology (ABET).

JSU's commitment to these two accreditation agencies requires that the following guidelines be satisfied:

- 1) A student in the program must pass the English Competency Exam (ECE) before the completion of his/her one-year residency at JSU. (SACS)
- 2) The Major Field Test (MFT) and the senior survey must be completed by each student in the program before graduation. (ABET)
- 3) Every course in the joint program must be taught by a qualified instructor who possess by a graduate degree in the field of study and stays current and active in the discipline. (SACS and ABET)
- 4) Students must be provided with access to adequately equipped computing laboratories and to the Internet. (ABET)
- 5) Faculty members and students must be provided with access to published reference materials in print and digital format to keep them abreast of current trends in the discipline. (SACS and ABET)
- 6) Students must be provided with a capstone experience that will give them a chance to apply their acquired skills and knowledge to solve a challenging problem. (ABET)
- 7) Students can complete the program in a reasonable amount of time by offering courses with sufficient frequency. (SACS and ABET)
- 8) The curriculum must adhere to the objective of preparing students for a professional career in modern society by combining technical requirements with general education requirements. (SACS and ABET)

- At least 40 semester hours of CS
- At least 15 semester hours of Math (discrete,

differential and integral calculus, probability and statistics)

- At least 12 semester hours of science
- At least 30 semester hours of humanities, social sciences, arts, and other disciplines.
- Oral and written communication skills must be developed and applied.

4. THE ACADEMIC JOINT PROGRAMS

We investigated two forms of academic joint programs: a 1-2-1 joint program and a 2+2 joint program. The 1-2-1 joint program entails the completion of the first and last years of study at the home institution of the student. With the 2+2 program, the student starts his/her first two years of the program at the home institution and completes the degree program at JSU.

Concerns and issues pertaining to the 1-2-1 joint program include:

- the ease of getting a US visa due to the fact that the student needs to return home to complete the degree;
- the internship and senior thesis requirements by the home institution are addressed; and
- the language and cultural transitions may be difficult for the Chinese students.

Concerns and issues pertaining to the 2+2 joint program include:

- the availability of practical training period for foreign students becomes a great recruiting tool; and
- The internship and senior thesis requirements by the home institution may have to be waived.

We perused the curriculum of each partner institution and mapped their courses with the courses in our curriculum. The mapping of computer science courses is very straightforward. The greatest difficulty is the mapping of their support courses to our core courses.

5. EXPERIENCES LEARNED and STIMULATING COLLABORATION

Higher education institutions operate in changing academic workplaces shaped by the demands of knowledge-driven marketplaces [5]. Universities have responded to these challenges by updating their curricula, formulating projects of practical relevance, partnering with businesses, government and individuals to fund research [4]. The influence of American corporations in Asian countries drives the presence of American higher education institutions in that region [7]. There is a correlation between the economic power of a country and the absorption of international students. The growing

presence of transnational educational institutions in Asia and Mid East stimulates the international exchange of faculty, administrators and students.

Due to the usage of the Internet and international travel students and academics can now participate in international projects. Although universities can be somewhat competitive in attracting students and faculty, the members of the academic community increasingly work on projects and co-author papers with colleagues on other campuses. As professor Umpleby stated: "In terms of communication there is now one global university" ([17]).

The inflow of international students to U.S. universities imply changes in infrastructure, programs, financial allocation, and culture [10]. Diversity must be integrated in classroom management and curriculum design to provide each discipline with a multicultural and global view.

The first group of students from Taizhou University started their junior year as computer science majors at Jacksonville State University in Fall 2010, after completing a session of study at the English Language Institute. During their first two years spent at TU, they learned the fundamental computing concepts and became proficient in at least three commonly used programming languages. The computer science faculty members expect them to be ready to work on complex projects.

Teaching methods can be very different in different countries. For example, most of the Chinese universities place more emphasis on the theoretical aspects of the computing discipline. At JSU, most of the upper-level courses in Computer Science are project-based. It took the Chinese students a considerable time to adjust. Even when they are told several times what is expected, sometimes it seems they do not believe what the instructor has said. We believe that the communication gap and culture shock are predominantly the causes of the problem. Although they are technically proficient, the students have a major difficulty in grasping some of the instructional materials.

We strongly encourage the new Chinese students to collaborate with their American colleagues, to engage in conversations, to exchange ideas and to be active participants in the class discussions. In order to benefit from the opportunity to study at JSU, they need to fully immerse in various activities that take place on JSU's campus.

We will impart this critical information to our counterparts at TU so they can better prepare the students whose intent is to join the dual degree program in the future.

The 2+2 dual degree program, rather than the 1-2-1 program, appears more attractive to the Chinese students. This is due, in most part, to the great opportunity to do practical training in the USA before going back home to China. In addition, it would be more beneficial to the Chinese students to take more English language courses before embarking on a study-abroad program such as what JSU has to offer.

Our efforts have been very well supported by the JSU administration. Despite the economic downturn, the faculty exchange program with Wuhan University remains active and fully funded. Plans for a similar faculty exchange program are currently being drawn with ZUMC.

6. CONCLUSION AND FUTURE PLANS

The College of Arts and Sciences at JSU continues to expand its outreach for college students worldwide. As the new era of education turns to globalization, we will continue to explore new initiatives and collaborations with other institutions of higher learning around the globe.

Jacksonville State University continues to develop and expand its academic partnerships with several Chinese universities. Emerging academic collaborations with Wuhan University, ZUMC, HU, and TU will be actively explored and nurtured. The possibility of expanding research partnership opportunities are also in our future plans.

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