

Collaborating to Offer a Statewide IT Degree Online

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The University System of Georgia (USG), through the Board of Regents and Advanced Learning Technologies (ALT), a unit of USG, initiated a project to develop an online degree in Information Technology. They invited representatives from the five USG institutions that had developed IT degrees to meet. Representatives of five schools met for the first time in May of 2002 to discuss the possibility of developing an online Bachelor of Information Technology degree. Members of the collaborative are:

- Armstrong Atlantic State University
- Clayton College and State University
- Georgia Southern University
- Macon State College
- Southern Polytechnic State University

We began the curricular design process by first sharing the curriculum from our various institutions. We discovered a good degree of commonality in the types of courses required, though there were considerable differences in curricular structure. We also looked at Board of Regents requirements for degree programs and at standards established by statewide curricular committees in Computer Science, Computer Information Systems, Information Technology and Software Engineering. We investigated Information Technology Skill Standards developed by industry and documented by the National Workforce Center for Emerging Technologies (NWCET). Using these standards as a beginning, we developed an instrument to poll Georgia businesses for their input. We examined other collaborative programs pioneered in the state of Georgia (Web MBA, etc). It seemed clear from these early investigations that we had the expertise, resources and cooperative spirit necessary to craft a joint program.

We quickly determined that the general education core required of all Georgia students was entirely available for distance learning students, mostly as online courses, but some as telecourses, etc. This allowed us to focus our efforts entirely on the Information Technology courses necessary to complete the curriculum. The Online BSIT curriculum committee quickly hammered out an agreement on Area F courses. (Aside: this work proved useful statewide, as later that year, the Curriculum Committee for IT met to develop statewide guidelines for Area F.) In Georgia, Area F represents major-specific courses taken at the lower division.

Later work focused on the IT core curriculum for the upper division. First, the committee re-examined work done at the national level on accreditation standards with the goal of

developing program outcomes. The committee found general agreement fairly quickly on program outcomes and this led directly to the types of courses needed to prepare students for a focused major in IT. So, early on, we had developed a structure for an online degree. These are the basic elements:

Program Outcomes:

Graduates of the Georgia WebBSIT will be able to:

1. Use and apply current IT discipline-related concepts and practices.
2. Identify and analyze organizational and individual problems or opportunities in the IT realm and define requirements for addressing them when an IT solution is appropriate.
3. Design and develop effective, IT-based solutions and integrate them into the user environment.
4. Create and implement effective project plans.
5. Identify and investigate current and emerging technologies and assess their applicability to address individual and organizational needs.
6. Analyze the impact of technology on individuals, organizations, and society.
7. Collaborate in teams to accomplish common goals.
8. Communicate effectively and efficiently.
9. Recognize the qualities necessary to succeed in a professional Environment

General Education Core (60 hours). As prescribed by the State of Georgia. Should the student wish to take this Gen. Ed. Core online, courses are available in acceptable formats through Georgia E-Core. Area F for IT, considered part of the Gen. Ed. Core, consists of the following courses representing 18 semester hours:

WBIT 1100 Introduction to Information Technology
WBIT 1310 Programming and Problem Solving I
WBIT 2311 Programming and Problem Solving II
WBIT 2000 The Enterprise and Information Technology
WBIT 2300 Discrete Mathematics for Information Technology
MATH 1400 Introductory Statistics

Intro to IT, Discrete Math, Programming I and Programming II are required for admission to the online BSIT program. Other individual Area F courses are prerequisite to selected IT Core courses, so that students can progress without undue delay through the curriculum. However, it is assumed that students will complete Area F fairly early on.

IT Core (42 hours). These courses are judged to be essential to the success of an IT professional and are required of all students.

WBIT 3010 Technical Communication
WBIT 4020 Professional Practice and Ethics
WBIT 4030 Senior Project and Portfolio
WBIT 3110 Systems Analysis and Design

WBIT 3111 Information Technology Project Management
WBIT 4112 Systems Acquisition, Integration and Implementation
WBIT 4120 Human Computer Interaction
WBIT 3200 Database Design, Development and Deployment
WBIT 3400 Introduction to Multimedia
WBIT 3410 Web Application Development
WBIT 3500 Architecture and Operating Systems
WBIT 3510 Data Communications and Networking
WBIT 4520 Information Security
WBIT 3600 Introduction to E-Commerce

E-Commerce Concentration (9-12 hours). If this concentration includes experiential learning, it will total 12 hours. We are currently exploring methods of documenting and monitoring experiential learning through an electronic portfolio format.

WBIT 4601 Customer Relationship Management
WBIT 4602 E-Com Design
WBIT 4610 E-Com Policy and Law

Free Electives (6-9 hours)

While this structure seems relatively straight forward, the devil is in the details. We intend to distribute the course offerings equally between the participating institutions. This requires each institution to agree to accept courses taught at a partner's institution. The Curriculum planning bodies at each institution have passed their blessings on this structural detail. In any case, the internal structure should be invisible to the student. The goal is to provide students with a seamless admissions-advising-registration-support structure so they may pursue their educational goals quickly and easily. One additional administrative detail was solved by requiring each of the participating institutions to recognize each others IT faculty as adjuncts.

The broad strokes of this curricular structure were painted without much disagreement. Not so the detailed work of individual course design. It became apparent after much wrangling over the programming course, that we also needed a structure for course development. By this time, we had divided the online BSIT project team into two groups, one that handled administrative details (the Governing Board), and one that handled curricular details (the Operating Board). The Operating Board began work on the Intro to IT course and on the Programming I course with a funding grant from the Board of Regents Advanced Learning Technologies (ALT) group. After some trial and error, we worked out the following formula.

The Operating Board meets to discuss program outcomes to be supported by a given course. Through a process of formal brainstorming, a list of course objectives is developed. This list is further refined by prioritizing the objectives and delineating which are to be covered at a conceptual level only and which are

to be covered in more depth. Also, the curriculum committee determines outcomes to be reinforced with hands-on application work in the class.

A development team is formed consisting of content experts and web development experts from ALT. One or two professors from participating universities become the content experts. ALT assigns a course developer to the team. This team adds to the course design, additional objectives designed to support the program outcomes provided by the Operating Board. These objectives are laced together to form a class structure which is passed back to the Operating Board for approval. Upon approval, the development team proceeds with the final design, development and implementation.

The Governing Board is responsible for appointments to the Operating Board, development of policy and for institutional oversight. Deans or academic Vice Presidents from each institution form the Governing Board. The Governing Board has hired an Executive Director to work closely with both the Governing Board and the Operating Board to develop policies and procedures and to manage the day to day operations of the WebBSIT. An administrative assistant has been hired to assist the Executive Director.

The Governing Board has also formed a Technical Advisory Committee consisting of Registrars and SCT Banner experts from each institution. This committee will assist as needed in setting up procedures for registering students in courses and charging the appropriate tuition. Also, the Governing Board has formed a Student Services/Financial Aid Committee consisting of representatives from these areas on each campus. This committee will play a critical role in developing and maintaining student services for online students.

The Operating Board's members are chosen from the faculty ranks of the participating institutions. The Operating Board's primary responsibility is the development of the curriculum and oversight of individual course development. They also work with the Executive Director to develop policies and procedures related to the curriculum. Each institution also has a WebBSIT Enrollment Counselor to serve as a primary contact for students. Generally, Operating Board members serve in this capacity.

To ensure that the curriculum stays relevant to our constituency, an External Advisory Board has been formed. Two members were nominated by each participating institution to represent community or statewide interests. The Executive Director will arrange yearly virtual meetings of the Advisory Board to keep them abreast of developments in the program and to solicit input for change or new directions.

Finally, it was agreed that one of the partner institutions serve as the fiscal agent and house the Executive Director and Administrative Assistant. The role of the fiscal agent is to track revenue and expenditures. Profits will be used to enhance the program and, should excess funds remain, will be distributed equally among the participating institutions.

The program kicked off this fall with an initial offering of 6 classes. Students enroll at one of the participating schools and register for courses online. The University System's WebCT Vista server houses all the course content. There were a few questions of policy remaining, as you might imagine. For example, each institution has a different calendar. We quickly needed to determine a compromise calendar to support the program. We have also addressed the issues of textbook ordering, student evaluation of instructors, and standardization of syllabi. To date, the administrative and governing structures we put into place have functioned as planned. We have completed an exciting two years of program development and anticipate an equally rewarding future as we build this new program under an unusual paradigm of shared governance in a virtual environment.

References:

Georgia's WebBSIT, a Bachelor of Science in Information Technology
<http://www.webbsit.org/>

National Workforce Center for Emerging Technologies,
<http://smartskills.nwcet.org/publicHome.asp>

Advanced Learning Technologies,
<http://alt.usg.edu/>

Georgia WebMBA,
<http://WebMBA.usg.edu/>

E-Core: Georgia's Core Curriculum Online,
<http://www.gactr.uga.edu/ecore/index.html>

"The electronic portfolio: Mainstreaming on-line course evaluation",
2003 online conference on Teaching Online in Higher Education (TOHE)

ACM/SIGITE, Special Interest Group Information Technology Education
Draft Accreditation and General Program Guidelines
<http://www.sigite.org/>