



ACADEMIC PROPOSAL

Date Received by Committee Chair 3/17/06

1. Teacher Education Committee on (date submitted) _____
2. Academic Affairs Committee on (date submitted) _____
3. Graduate Affairs on (date submitted) 03/16/2006

From (School/Department) School of Computer and Information Science

Signature of Unit Head _____

Person to be Contacted Dr. Boris Peltserverger/Dr. AC Shah

Type of Action (check one): Addition Deletion Substantive Change
 Submission for File Other (please specify) _____

Action desired for (check one): Program Course Other (specify) _____
Course/Program Name and (for courses) Course Description and Hours Credit: _____

Brief Description of Proposal:
The School of Computer and Information Science would like to add the Online Graduate Program in CS (CIS option). The online program will be attractive to non-traditional and commuting students.

This section to be completed by appropriate Committee Chair (and Secretary of Faculty Senate):

Check Committee taking Action:
(1) Teacher Education Committee (2) Academic Affairs (3) Graduate Affairs

Action taken by Committee: (Check One) Approved Not Approved Tabled

Comments/Reasons for Non Approval or Tabling:

Signature of Chair *Curtis Howell* Date 4/3/06

Requires action of the Faculty Senate and Faculty? Yes or No (Check one)

Faculty Senate Action: Forwarded by the Senate to the Faculty (Check one):
 With Endorsement Without Endorsement, or Remanded back to Committee

Signature of Secretary, Faculty Senate _____ Date _____

1. Will this proposal change the requirements for any degree program? If so, explain and attach existing and proposed program sheets with changes clearly marked.

No

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2. Is the proposed course/program recommended or required by an accrediting agency? If so, explain.

No

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3. Is the proposed course/program substantially similar to an existing one in another GSW department or school? If so, explain and justify.

No

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4. Justification and/or objectives for proposal (including relationship to GSW Strategic plan, if appropriate).

1. Allow students who enrolled in the Online Graduate Certificate Program to continue their education.

2. Offer graduate students, who are commuting from Albany, Fort Valley, and Warner Robins, a more flexible educational environment.

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5. What additional resources will be required to implement the proposal? Faculty? Facilities? Equipment? Library holdings? Others?

None.

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6. What impact will this proposal have on other courses, programs, departments, schools, or units?

None.

-
7. Anticipated start date: Spring 2007

8. Estimated number of students enrolled first semester: 10 Enrolled on a continuing basis 10

9. Required attachments for this proposal:

- Course outlines must include the course number, course title, course description for the Bulletin (followed by credit hour designations including lab hours, if appropriate), course content, and learning objectives for the course. A suggested text and a bibliography may be included as well.
- Proposals for new degree must include a curriculum sheet.
- Proposals for changes in degree programs must include existing and proposed curriculum sheets with changes clearly marked.

TO: _____

Proposal for an External Degree

Institution: Georgia Southwestern State University Date: 1/31/06
College/School/Division: Computer and Information Sciences
Department: n/a
Degree (indicate whether this is a stand-alone degree): Master of Science in Computer Science, stand-alone degree
Major: Computer Science (CIS Option)
CIP Code: 11.0701
Proposed Start Date: Spring 2007

1. Assessment

Computer technology is at the heart of today's business organizations – public and private. There is a continuing demand for computer literacy. In southwest Georgia, five universities offer degree programs in computer science: Georgia Southwestern State University, Columbus State University, Albany State University, Fort Valley State University, and Valdosta State. Among them only Georgia Southwestern State University and Columbus State University offer graduate programs in computer science. GSW serves the educational needs of the southwestern part of the state and attracts students from many southwestern counties of Georgia. Among the local and regional employers who recruit graduates from GSW with degrees in Computer Science and Computer Information Systems are: Habitat for Humanities International, Lockheed-Martin, Collins & Aikman, Cooper Lighting, Mulcoa, Computer Business Services, Sumter Regional Hospital.

GSW is within driving distance from many places. Large numbers of students come from Albany, GA., a city of about 100,000 population located thirty-five miles to the south of Americus. Albany is also home to a number of large regional employers: Miller Brewing, Merck Pharmaceuticals, Cooper Tire, Phoebe Putney Hospital, and Palmyra Hospital, and the Marine Corps Logistics Base. There are three two-year colleges in the region with computer information systems and network management programs. Instructors from these colleges are looking for an opportunity to receive an advanced degree in the teaching field. Thus, there is a need for such advanced programs in this region and there are businesses to recruit our students.

The graduate program of the School of Computer and Information Sciences serve students from the Albany area by direct campus enrollments, and through offering on-line courses. The graduate program maintains an enrollment of 25 - 30 students.

There are two reasons for GSW to offer the Graduate Computer Science Program in an online format:

1. Allow students who enrolled in the Online Graduate Certificate Program to continue their education. The Online Graduate Certificate Program was created at GSW in Fall 2004. About 15 students from different parts of Georgia and Florida enrolled and completed the program.

The primary goal of this program is to give instructors from two-year and technical colleges the opportunity to obtain 18 hours of graduate course work in their teaching field. Although the program was created for instructors, it is not limited only to them. This certificate program includes courses which reflect the current industry trend. Because of its online format students can take up to six graduate classes (18 credit hours) and complete their study in one year. Students who are willing to enroll in this program meet regular admission requirements. After taking 18 credit hours, students can continue to take courses toward to the MS in CS degree. More than 60% of the students who enrolled in the online graduate certificate program would like to continue their education in an online format and receive a Master's Degree in Computer Science.

2. Offer graduate students, who are commuting from Albany, Fort Valley, and Warner Robins, a more flexible educational environment.

2. Admission Requirements

All requirements for admission to the Online Graduate Computer Science Program will be the same as those for the approved (on-campus) degree program.

Admission Requirements

Regular Admission (without conditions)

Undergraduate degree from an accredited college or university

A minimum of 2.5 undergraduate cumulative GPA (based on a 4.0 scale)

A minimum of 3.0 GPA on all previous graduate work attempted

A minimum total of 800 on the verbal and quantitative sections (combined) of the GRE.

Three letters of reference

Exemptions: Applicants who have earned a master's degree from an accredited university are exempted from a requirement of a GRE score and can be admitted in the program based on a graduate GPA.

Depending upon test scores and GPA, a student not meeting these requirements for regular admission may first receive Regular Admission with conditions to the M.S. degree program in Computer Science.

Regular Admission (with conditions)

Students seeking a degree through graduate study who does not meet the requirements for regular admission without conditions may be admitted with conditions.

The student who does not have the necessary background course work must complete the appropriate undergraduate pre-requisite courses as determined by school. The grade in each course must be no lower than C. The student will be allowed to take up to nine graduate semester hours (three courses) for which he/she has met prerequisites.

At the time the conditions to admission are met, the student's record will be updated to reflect a change to admission without conditions. If the conditions are not met as required, the student will be expelled from the graduate program.

3. Program Content

The basic curriculum of the program will be equivalent to the approved (on-campus) degree program. The curricula sheets for both the on-line and on-campus degrees are attached.

4. Student Advising

Each student will have access to an advisor. By the Fall 2006 semester, the School will develop an orientation for new graduate students in an online format.

5. Resident Requirements

Residence requirements will be identical to those established for the approved (on-campus) degree program with residence in the on-line format serving to meet that requirement.

6. Program Management

The graduate program is administered by the Director of the CIS graduate program, who reports to the dean of the school. The duties of the Director include (but are not limited to) handling recruiting and admissions, collecting program statistics, serving as academic advisor, monitoring the masters thesis, conducting graduate seminars, and serving as the primary representative for the program within the School, the University, and the community.

The school has a graduate curriculum committee that assists and makes recommendations to the dean with regard to requests for curricular changes, and other matters regarding the graduate programs. The committee consists of following members:

Dr. Arvind Shah, Associate Professor, Director of the Graduate Program

Dr. Xiang Fu, Assistant Professor

Dr. Alexander Yemelyanov, Associate Professor

7. Library and Laboratory Resources

The university library provides outstanding academic support to all programs. The library remains open for 71 hours per week. Currently the library has subscriptions to 9 computer related journals in the area of Computer Information Systems and Computer Science, approximately 830 titles and 920 volumes including audio-visual materials. The library also provides access to electronic resources such as Galileo, and most importantly the access to the GIL (GALILEO Interconnected Libraries).

The School is working with the publisher of online books, SafariX (<http://www.safarix.com>), to create a corporate account for distance learning students in Fall 2006.

With more and more students enrolled in online classes, it has been a major concern for educators that online students should be able to have access to the lab facilities, especially the contemporary software development tools. Many of the software tools required by the CIS curriculum, e.g., Microsoft Visual Studio.Net, Coldfusion, MS SQL Server, and Oracle DBMS, require stronger computing abilities that can not be provided by the regular PCs or laptops owned by students. In addition, having students send their projects directly to instructors could create unnecessary inconvenience in grading. Faculty members need to configure their desktop systems to run the projects sent by each student and such configuration is time-consuming.

From Spring 2006 the School offers a new service for online computer classes – a virtual lab (<http://vlab.gsw.edu>). Students can remotely log onto the system and complete their project assignments. The virtual lab can eliminate all the aforementioned problems for the students and instructors in online classes. It gives equal experiences to both online and regular students.

The School was established a network of Testing Centers for the existing Online Graduate Certificate Program (seven centers- six in Georgia and one in Florida). These centers will be used also for the Online Graduate Computer Science Program.

8. Budget

The School can double graduate enrollment by increasing the number of students in each class (current average number of students in a graduate class is 12). Existing computer servers also allow increasing to 60 students. No changes in budget are required to implement the on-line degree program.

9. Program Costs Assessed to Students

Students will pay a cost of a Terminal Server Client Access License (TS CAL) to access the Virtual Lab. The current price of TS CAL is around \$180 (one-time payment; the Terminal Server Client can be used in all classes).

10. Accreditation

Appropriate accreditation procedures will be carried out by the School of Computer and Information Sciences as part of the GSW SACS accreditation. There is no a professional accreditation agency for a graduate program in computer science.

11. Curriculum and Plan of Study

The curriculum for the online program is the same as for the regular MS in CS program. Under the multi-year schedule, several graduate online courses will be offered each semester.

It is assumed that most online graduate students will take two or three courses each semester. However, it is recommended that a student be registered for at least two courses to complete the degree requirements in two years (including summer semester). Under the existing multi-year schedule, the following plan of study is suggested for online graduate students.

Curriculum

On-line Master of Science - CIS Option

Name _____

ID # _____

Advisor _____

rev.2-06

| Required Core Courses (15 cr) | Hrs | Term | Grade |
|---|-----|------|-------|
| CIS 5310 Decision Support Systems | 3 | | |
| CIS 6410 Client-Server Systems | 3 | | |
| CIS 6720 Distributed Web Applications | 3 | | |
| CSCI 6230 Internetworking Archit. & Protocols | 3 | | |
| CSCI 6410 Advanced Database Design | 3 | | |

| Elective Courses (16 cr w thesis) (21 cr w/o thesis) | Hrs | Term | Grade |
|--|-----|------|-------|
| CIS 5320 Object Oriented Analysis and Design | 3 | | |
| CIS 6420 Data Mining | 3 | | |
| CIS 6800 Human-Comp. Interaction & Interface Dsg | 3 | | |
| CSCI 5120 Topics in Information Security | 3 | | |
| CSCI 6120 Advanced Computer Architecture | 3 | | |
| CSCI 6220 Distributed Operating Systems | 3 | | |
| CSCI 6320 Advanced Software Engineering | 3 | | |
| CSCI 6810 Modeling and Simulation | 3 | | |
| CSCI 6821 Advanced Computer Graphics | 3 | | |
| CSCI 6831 Topics in Advanced AI | 3 | | |
| CSCI 6900 Special Problems in CS and CIS | 3 | | |
| CSCI 6930 Internship | 3 | | |

| Thesis Option (30 cr) | | | |
|--|--|--|--|
| (1) 30 Semester credit hours of Graduate Coursework | | | |
| (a) Required Graduate Core Courses (18 cr) | | | |
| (b) Elective Graduate Courses (12 cr) | | | |
| (2) Master's Thesis (6 cr) and thesis defense (CSCI 7900) | | | |
| (3) Participation in Graduate Seminar | | | |
| (4) A 3.0 Cumulative GPA on a 4.0 scale | | | |
| (5) No courses with a grade of "D" may be used to satisfy degree requirements | | | |
| (6) A maximum of 6 cr with a grade of "C" may be used to satisfy degree requirements | | | |

| Non-Thesis Option (36 cr) | | | |
|--|--|--|--|
| (1) 36 Semester credit hours of Graduate Coursework | | | |
| (a) Required Graduate Core Courses (18 cr) | | | |
| (b) Elective Graduate Courses (18 cr) | | | |
| (2) Participation in Graduate Seminar | | | |
| (3) A 3.0 Cumulative GPA on a 4.0 scale | | | |
| (4) No courses with a grade of "D" may be used to satisfy degree requirements | | | |
| (5) A maximum of 6 cr with a grade of "C" may be used to satisfy degree requirements | | | |

Curriculum (On-Campus Program)

Master of Science - CIS Option

Name _____

ID # _____

Advisor _____

rev.3-05

| Required Core Courses (15 cr) | Hrs | Term | Grade |
|---|-----|------|-------|
| CIS 5310 Decision Support Systems | 3 | | |
| CIS 6410 Client-Server Systems | 3 | | |
| CIS 6720 Distributed Web Applications | 3 | | |
| CSCI 6230 Internetworking Archit. & Protocols | 3 | | |
| CSCI 6410 Advanced Database Design | 3 | | |

| Elective Courses (15 cr w thesis) (21 cr w/o thesis) | Hrs | Term | Grade |
|--|-----|------|-------|
| CIS 5320 Object Oriented Analysis and Design | 3 | | |
| CIS 6420 Data Mining | 3 | | |
| CIS 6800 Human-Comp. Interaction & Interface Dsg | 3 | | |
| CSCI 5120 Topics in Information Security | 3 | | |
| CSCI 6120 Advanced Computer Architecture | 3 | | |
| CSCI 6220 Distributed Operating Systems | 3 | | |
| CSCI 6320 Advanced Software Engineering | 3 | | |
| CSCI 6810 Modeling and Simulation | 3 | | |
| CSCI 6821 Advanced Computer Graphics | 3 | | |
| CSCI 6831 Topics in Advanced AI | 3 | | |
| CSCI 6900 Special Problems in CS and CIS | 3 | | |
| CSCI 6930 Internship | 3 | | |

| Thesis Option (30 cr) | | | |
|--|--|--|--|
| (1) 30 Semester credit hours of Graduate Coursework | | | |
| (a) Required Graduate Core Courses (18 cr) | | | |
| (b) Elective Graduate Courses (12 cr) | | | |
| (2) Master's Thesis (6 cr) and thesis defense (CSCI 7900) | | | |
| (3) Participation in Graduate Seminar | | | |
| (4) A 3.0 Cumulative GPA on a 4.0 scale | | | |
| (5) No courses with a grade of "D" may be used to satisfy degree requirements | | | |
| (6) A maximum of 6 cr with a grade of "C" may be used to satisfy degree requirements | | | |

| Non-Thesis Option (36 cr) | | | |
|--|--|--|--|
| (1) 36 Semester credit hours of Graduate Coursework | | | |
| (a) Required Graduate Core Courses (18 cr) | | | |
| (b) Elective Graduate Courses (18 cr) | | | |
| (2) Participation in Graduate Seminar | | | |
| (3) A 3.0 Cumulative GPA on a 4.0 scale | | | |
| (4) No courses with a grade of "D" may be used to satisfy degree requirements | | | |
| (5) A maximum of 6 cr with a grade of "C" may be used to satisfy degree requirements | | | |

Plan of Study

Fall Semester

CIS 6410 Client/Server Database Systems

Elective Class

Spring Semester

CIS 6720 Distributed Web Applications

Elective Class

Summer Semester

Elective Class

Elective Class

Fall Semester

CIS 6230 Internetworking Arch. & Protocols

Elective Class

Spring Semester

CSCI 6410 Advance Database Design

CSCI 6220 Decision Support Systems

Summer Semester

Elective Class

Elective Class

The above plan of study will not increase any resource requirements and can co-exist with the regular MS in CS program.