

Armstrong

MEMORANDUM

To: Graduate Curriculum Committee

From: Phyllis Panhorst
Catalog Editor

Date: February 11, 2013

Re: Agenda – February 20, 2013

The Graduate Curriculum Committee will meet at 2:00 p.m. on Wednesday, February 20 in University Hall 282.

AGENDA

CALL TO ORDER

Teresa Winterhalter

APPROVAL OF MINUTES – January 16, 2013

ITEMS

I. College of Education

A. Adolescent and Adult Education

Items 1-4 from the Department of Adolescent and Adult Education were discussed and the undergraduate portions approved by the University Curriculum Committee. They are being submitted to the Graduate Curriculum Committee for consideration of the graduate portions.

1. Modify the following course:

MGSE 5300U/G CONTENT METHODS IN SECONDARY ENGLISH AND LANGUAGE ARTS 3-V-3

~~Undergraduate Prerequisites: Admission into candidacy in the College of Education, and EDUC 3200~~

~~Graduate Prerequisites: Admission into candidacy in the College of Education and~~ **Admission to the College of Education at the Graduate level, EDUC 6200**

Rationale: The title change better addresses the concept of the new degree in the new secondary MAT program. Graduate portion replaces SCED 6340, which is being deleted.

Effective Term: Summer 2013

CURCAT

MGSE 5300U (Undergraduate) Course Equivalent: None

MGSE 5300G (Graduate) Course Equivalent: SCED 6340

2. Modify the following course:

MGSE 5400U/G CONTENT METHODS IN SECONDARY HISTORY AND THE SOCIAL STUDIES 3-V-3

Undergraduate Prerequisites: ~~Admission into candidacy in the College of Education, and~~ EDUC 3200

Graduate Prerequisites: ~~Admission into candidacy in the College of Education and~~ **Admission to the College of Education at the Graduate level, EDUC 6200**

Rationale: The title change better addresses the concept of the new degree in the new secondary MAT program. Graduate portion replaces SCED 6360, which is being deleted.

Effective Term: Summer 2013

CURCAT

MGSE 5300U (Undergraduate) Course Equivalent: None

MGSE 5300G (Graduate) Course Equivalent: SCED 6360

3. Modify the following course:

MGSE 5500U/G CONTENT METHODS IN SECONDARY SCIENCE 3-V-3

Undergraduate Prerequisites: ~~Admission into candidacy in the College of Education, and~~ EDUC 3200

Graduate Prerequisites: ~~Admission into candidacy in the College of Education and~~ **Admission to the College of Education at the Graduate level, EDUC 6200**

Rationale: The title change better addresses the concept of the new degree in the new secondary MAT program. Graduate portion replaces SCED 6370, which is being deleted.

Effective Term: Summer 2013

CURCAT

MGSE 5300U (Undergraduate) Course Equivalent: None

MGSE 5300G (Graduate) Course Equivalent: SCED 6370

4. Modify the following course:

MGSE 5600U/G CONTENT METHODS MIDDLE GRADES IN SECONDARY MATHEMATICS 3-V-3

Undergraduate Prerequisites: ~~Admission into candidacy in the College of Education, and~~ EDUC 3200

Graduate Prerequisites: ~~Admission into candidacy in the College of Education, and~~ **Admission to the College of Education at the Graduate level, EDUC 6200**

Rationale: The title change better addresses the concept of the new degree in the new secondary MAT program. Graduate portion replaces SCED 6350, which is being deleted.

Effective Term: Summer 2013

CURCAT

MGSE 5300U (Undergraduate) Course Equivalent: None

MGSE 5300G (Graduate) Course Equivalent: SCED 6350

B. Childhood and Exceptional Student Education

1. Modify the following course

ECEG 7070 Teaching ~~Cross-Cultural~~ **Communication Across Cultures** 3-0-3

Description: This course is designed to address the power of language as it relates to communication between educators and students, **including Youth At-Risk and students in poverty**. ~~Strategies that improve communication between educators and at-risk youths will be addressed.~~

Rationale: The title and description changes better explain course content.

Effective Term: Summer 2013

2. Modify the following course

ECEG 7090 ~~Early Childhood Curriculum & Methods~~ **Methods of Instructional Differentiation in Early Childhood Education** 3-V-3

Description: Content, approaches, methods, and materials appropriate for young children as presented in interdisciplinary or experience approach emphasizing how language arts, science, mathematics, social studies, and the creative arts are adapted to the skills and needs of children. A field experience is required.

Rationale: The title change better explains course content.

Effective Term: Summer 2013

3. Modify the following course:

ECEG 7060 Multimedia Approach to Children's Literature **and Writing** 3-0-3

Description: Designed to expand the knowledge of children's media, both in print and non-print, to provide for more in-depth study of literature **and writing**, and to focus on the development of literacy for the classroom.

Rationale: The title and description changes better explain course content.

Effective Term: Summer 2013

4. Modify the following course

ECEG 7310 Field-Based Research ~~in Writing~~ V-V-(1-6)

~~Prerequisite: Permission of instructor/department~~

Description: Students will identify a particular class issue ~~related to writing~~ and ~~carry out~~ **conduct** a ~~year-long~~ semester long classroom-based ~~ethnographic~~ research project.

Rationale: The prerequisite is no longer required. The title and description changes better explain course content. The description change better suits the Program of Study schedule.

Effective Term: Summer 2013

5. Modify the following program of study:

Program of Study for the Master of Education in Early Childhood Education

A. Professional Education (~~12~~ 9 hours)

~~FOUN 7060 Educational Research~~ 3

ECEG 7070 Teaching ~~Cross-Cultural~~ Communication **Across Cultures** 3

ECEG 7090 ~~Early Childhood Curriculum & Methods~~ **Methods of Instructional Differentiation in Early Childhood Education** 3

~~ECEG 7110 Advanced Child Growth & Development~~ 3

ECEG 7060 Multimedia Approach to Children's Literature **and Writing** 3

B. Support Courses (9 hours)

RDEN 7070 Understanding Readers & the Reading Process (RE I) 3

RDEN 7071 Linking Literacy Assessment to Instruction (RE II) 3

RDEN 7072 Instructional Strategies in the Content Areas (RE III) 3

C. Specialized Content for Teaching (9 credit hours)

~~Courses in Early Childhood Education selected from educating exceptional learners, language arts through technology, research and best practices in mathematics and sciences~~ 9

RDEN 7185 Teaching Writers and Writing 3

ECEG 7050 Advanced Methods in Elementary Mathematics 3

ECEG 7010 Advanced Methods in Early Childhood Science 3

D. Capstone Course (3 hours)

ECEG 7310 Field-Based Research ~~In Writing~~ 3

TOTAL 30 hours

Rationale: The title changes better explain course content. The required Specialized Content for Teaching and Capstone Courses strengthen the program and emphasize writing, a Georgia Common Core Curriculum emphasis.

Effective Term: Summer 2013

6. Modify the following course

EEXE 7510 Assistive Technology for Students With Physical And Sensory Disabilities 3-0-3

Description: This course provides an overview of a wide range of forms of assistive technology including switches, computer use and adaptations, and communication devices. **Provides opportunities for candidates to develop devices for use in meeting the needs of students with physical and sensory disabilities.**

Rationale: The added description better explains course content.

Effective Term: Summer 2013

7. Modify the following program of study:

Program of Study for the Master of Education in Special Education

A. Professional Core for Tracks One and Two (3 hours)

FOUN 7060 Education Research 3

1. Track One: Moderate to Severe Disabilities (12 hours)

EEXE 7507 Characteristics of Students with Multiple and Severe Disabilities 3

~~*PSYC 5060G Basic Behavior Principles and Behavior Modification 3~~

~~*PSYC 5061G Advanced Behavioral Assessment 3~~

EEXE 7020 Methods and Strategies for Teaching Students with Autism 3

EEXE 7512 Augmentative and Alternative Communication with Severe and Multiple Disabilities 3

EEXE 7508 Strategies for Teaching Children with Multiple/Severe Disabilities 3

2. Track Two: Mild to Moderate Disabilities (18 hours)

EEXE 7000 Characteristics of Behavior Disorders 3

EEXE 7001 Technologies for Special Educators (or equivalent technology course) 3

EEXE 7030 Characteristics of the Learning Disabled 3

EEXE 7035 Advanced Methods of Instruction for Individuals with Learning Disabilities 3

EEXE 7040 Social Development and Anger Management 3

EEXE 7403 Brain Research and Educational Practice 3

~~**B. Transition Core for Tracks One and Two (6 hours)**~~

~~EEXE 7319 Career Development and Transition 3~~

~~EEXE 7320 Vocational Assessment of Special Education Students~~ 3

B. Transition Core

1. Track One: Moderate to Severe Disabilities (12 hours)

EEXE 7319 Career Development and Transition 3

EEXE 7320 Vocational Assessment of Special Education Students 3

EEXE 7321 Interagency Planning and Service for Transition to Adulthood 3

EEXE 7322 Community Based Instruction 3

2. Track Two: Mild to Moderate Disabilities (6 hours)

EEXE 7319 Career Development and Transition 3

EEXE 7320 Vocational Assessment of Special Education Students 3

C. Capstone Courses for Tracks One and Two (6 hours)

1. Track One (6 hours)

~~*PSYC 5062G Advanced Behavior Techniques~~ 3

EEXE 7510 Assistive Technology for Students With Physical and Sensory Disabilities 3

EEXE 7071 Research Project 3

2. Track Two (6 hours)

EEXE 7070 Advanced Research Methods 3

EEXE 7071 Research Project 3

TOTAL: Track One 33 hours

TOTAL: Track Two 33 hours

~~*PSYCH 5060, 5061, and 5062 allow students to sit for the Behavior Analyst Board Training for Board Certified Assistant Behavior Analyst (BCABA) Examination~~

Rationale: Adding EEXE 7321 and EEXE 7322 will strengthen the program, include the Transition Specialist Endorsement to the degree, and meet an identified need for improving Georgia school Special Education transition programs. Adding EEXE 7510 will strengthen the program by providing an opportunity for candidates to develop devices for use in meeting the needs of students with physical and sensory disabilities. Removing PSYC 5060G, 5061G, and PSYC 5062G will create space for EEXE 7321, EEXE 7322, and EEXE 7510.

Effective Term: Summer 2013

II. College of Health Professions

A. Health Sciences

1. Create the following course:

SMED 6605 Physical Activity and Aging Across the Lifespan 3-0-3

Prerequisites: none

Description: The contribution of human movement to the well-being and quality of life of aging populations. Principles, practices, and programs for seniors related to the concept of wellness. The myths, needs and movement potential of aging persons will be evaluated.

Rationale - Recent trends in sports medicine include increased opportunities promoting exercise and wellness programs for seniors. This class will address a wide variety of topics unique to senior citizen populations regarding exercise, physical activity, fitness, health, and wellness. Specific emphasis will be placed on analyzing the effects of physical activity on the elderly as well as understanding the aging process and the resulting decline in physiological properties. This course will be offered as an elective in the MSSM and MPH Programs.

Effective Term: Fall 2013

CURCAT:

Major Department: Health Sciences

Can course be repeated for additional credit? No

Maximum number of Credits: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: N/A

B. Nursing (no items)

C. Rehabilitation Sciences (no items)

III. College of Liberal Arts

A. Art, Music, & Theatre (no items)

B. Criminal Justice, Social and Political Science

Item 1 from the Department of Criminal Justice, Social and Political Science was discussed and the undergraduate portion approved by the University Curriculum Committee. It is being submitted to the Graduate Curriculum Committee for consideration of the graduate portion.

1. Create the following course:

SOCI 5130U/G Political Terrorism

3-0-3

Undergraduate Prerequisite: CRJU 1100 or HIST 1100 or POLS 1100

Graduate Prerequisite: none

Description: International and domestic terrorism undertaken for political purposes in liberal states. Primary focus on state-sponsored international terrorism, American domestic revolutionary terrorism, and the dilemmas of counter-terrorism in a democracy. Cross-listed with CRJU 5130U/G and POLS 5130U/G.

Rationale: This course has been cross-listed with SOCI 4010, which raised potential SACS issues regarding both the level of the course and the field of the instructor. To solve this, SOCI 5130U/G will be cross-listed with CRJU

5130U/G and POLS 5130U/G. Graduate students will be required to work on a project and deliver a final report or paper.

Effective Term: Summer 2013

CURCAT:

Major Department: Criminal Justice, Social and Political Science

Can Course be repeated for additional credit? No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: POLS 5130U/G, CRJU 5130U/G

Cross-listed Courses: POLS 5130U/G, CRJU 5130U/G

C. Economics (no items)

D. Gender and Women's Studies (no items)

E. History

Item 1 from the Department of History was discussed and the undergraduate portion approved by the University Curriculum Committee. It is being submitted to the Graduate Curriculum Committee for consideration of the graduate portion.

1. Create the following course:

HIST 5580U/G Topics in Environmental History

3-0-3

Undergraduate Prerequisite: HIST/POLS 1100 and HIST 1111 or 1112

Graduate Prerequisite: admission to the graduate program in History

Description: A historical study of the interactions between people and their environments. Course may focus on local environments, the Southeast, the entire United States, or survey the environmental history of the world.

Rationale: Environmental history is one of the fastest growing sub-disciplines in the historical profession. A course in this field will offer Armstrong history majors additional breadth in their major field courses, and also allow students minoring in environmental studies to learn the historical issues that remain significant today. Topics may include the biological consequences of the European encounter with the Americas, the environmental impact of technology and war, the interrelationship and mutual impact of humans with the land and its plant and animal life, cultural attitudes and ideas about nature and the environment, and the roots of the current environmental crisis. Graduate students will need to complete substantial papers based upon original research and/or historiographical analysis.

Effective Term: Fall 2013

CURCAT:**Major Department: History****Can course be repeated for additional credit? Yes****Maximum number of Credit Hours: 6****Grading Mode: Normal****Instruction Type: Lecture****Equivalent Course: None****F. Languages, Literature, and Philosophy**

Item 1 from the Department of Languages, Literature, and Philosophy was discussed and the undergraduate portion approved by the University Curriculum Committee. It is being submitted to the Graduate Curriculum Committee for consideration of the graduate portion.

1. Modify the following course:**FILM 5510U/G FILM AND LITERATURE****3-0-3****Undergraduate Prerequisite: ENGL 2100 or PHIL 2010 or PHIL 2030****Graduate Prerequisite: None****Relationship between film and literature with special emphasis on the adaptation of literature into film. ~~Crosslisted as THEA 5510.~~**

Rationale: THEA 5510U/G was not properly created; the G portion never appeared on the GCC agenda for approval. Theater students may still take this equivalent course, FILM 5510U/G. Also, the course description of FILM 5510G was never updated to match FILM 5510U and should read as above.

Effective Term: Fall 2013

Item 2 from the Department of Languages, Literature, and Philosophy was discussed and the undergraduate portion approved by the University Curriculum Committee in February 2009. It was submitted to the Graduate Curriculum Committee at that time but never appeared on the agenda. It is being submitted now for approval of the graduate portion.

FILM 5030U/G Television Theory and Criticism**3-0-3****Undergraduate Prerequisite: ENGL 2100****Graduate Prerequisite: None****Description: Critical examination of various aspects of television, such as genres, social implications, historical significance, and modes of production.**

Rationale: The course expands our film offerings into the growing field of Television Studies and provides an additional option for film minors and students in the newly

revised Professional Communications track of the English Major. Graduate students will be expected to supplement undergraduate course work with additional assignments such as oral presentation, leadership of class discussions, advanced investigation of primary texts and supplemental research projects.

Effective Term: Fall 2009

CURCAT:

Major Department: Languages, Literature, and Philosophy

Can course be repeated for additional credit? No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Item 3 from the Department of Languages, Literature, and Philosophy was discussed and the undergraduate portion approved by the University Curriculum Committee in March 2009. It was submitted to the Graduate Curriculum Committee at that time but never appeared on the agenda. It is being submitted now for approval of the graduate portion.

3. Create the following course:

FREN 5030 U/G SPECIAL TOPICS IN FRANCOPHONE LITERATURE 3-0-3

Undergraduate Prerequisite: ENGL 2100 or Permission of Instructor

Graduate Prerequisite: None

Description: Analysis of post-colonial, French-language literatures from Asia, Africa, the Caribbean, Canada and Cajun areas, in English translation.

Rationale: This course is meant to open French literature to the AASU student community. There are no courses on French literature offered in English (in translation) on our campus, while that literature is one of the richest and most influential of the modern European world, featuring authors such as Pisan, Montaigne and Descartes, Hugo and Dumas, Sartre, Foucault and De Beauvoir. There is also a current interest in literature of the Francophone (French speaking) World, with the study of works by Bâ, Senghor, and Césaire, to cite only a few. This course would offer the richness of Francophone Literature to students who are not able to read it in its original language. Also, it would allow professors of English literature, gender and women's studies as well as African American literature to teach a special topics course on specific themes in their own courses, but with a focus on Francophone authors. Graduate students will be required to lead discussion on one author/work and will do more substantial research.

Effective Term: Fall 2009

CURCAT:

College: Liberal Arts

Major Department: Languages, Literature, and Philosophy

Can the course be repeated for additional credit: Yes

Maximum number of credit hours: 6

Grading Mode: Normal

Instructional Type: Lecture

G. Professional Communication and Leadership (no items)

IV. College of Science and Technology

A. Biology (no items)

B. Chemistry & Physics (no items)

C. Computer Science and Information Technology

1. Modify the departmental information (page 101 of current catalog):

~~The overall mission of the computer science program is to have students be prepared for employment in business or industry in the wide variety of positions in which computer science is required, have students be prepared to pursue a PhD in computer science or a cognate field, have students develop fundamental skills in computer science in order to be in a position to adapt to rapid technological changes, and have students develop an understanding of the algorithmic approach to problem solving including the development, representation, communication, and analysis of algorithms. Master of Science in Computer Science (MSCS).~~

The main mission of the computer science program is to provide students with the necessary knowledge and skills for the current and near future job markets in industry as well as academia. The computer science program is student-focused, transformative, experiential and rigorous, leading to student success.

Students graduating from the program will be ready to take a wide variety of positions in the industries in which computer science is required, and also pursue an academic career in computer science or a cognate field.

Besides developing fundamental skills in computer science in order to adapt to rapid technological changes students must also develop an understanding of the algorithmic approach to problem solving including the development, representation, communication, and analysis of information systems and algorithms.

Rationale: See Item 2.

Effective Term: Fall 2013

2. Modify Program of Study name, Admission Standards, and Standards of Progression and Graduation (pages 101-102 of current catalog):

MASTER OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE

The main objectives of the computer **and information science** program are to provide a solid foundation in ~~theoretical computer science so~~ **and information science** so that graduates will have the fundamentals necessary to evolve with the discipline and to provide ~~cutting-edge~~ **innovative** graduate course work in core computer science **and information science** areas.

*~~*The MSCS program is currently not accepting new students.~~*

Admission Standards

~~For admission to the MSCS program, the applicant must have completed an application for admission to Graduate Studies at Armstrong. Three recommendation letters, a Letter of Intent, two official undergraduate transcripts, general test GRE scores, and a certificate of immunization are also required prior to admission to the program. There are two classes of admission: regular admission and provisional admission.~~

For admission to the MSCIS program, the applicant must hold a Bachelor's of Science degree in a science, mathematics, engineering, or related field of study, and must complete an application for admission to The Office of Graduate Studies at Armstrong. A complete application comprises a Letter of Intent, two official undergraduate transcripts, official GRE scores, and three recommendation letters. The University also requires a certificate of immunization for admission. There are two categories of admission to the MSCIS program: regular admission and provisional admission.

A. Regular Admission

Regular admission requires all of the following conditions to be met:

1. ~~Bachelor of Science in computer science or a bachelor degree in a related field. Applicant must have completed the undergraduate course work equivalent to the following:~~ **in a science, mathematics, or engineering discipline or a Bachelor's degree in a related field. In addition, the applicant must have completed undergraduate course work equivalent to the following:**
 - CSCI 1301 (Introduction to Programming Principles).
 - ~~CSCI 1302 (Advanced Programming Principles).~~
 - ~~CSCI 2410 (Data Structures and Algorithms).~~
 - ~~CSCI 2625 (Discrete Structures for Computer Science).~~
 - ~~CSCI 3201 (Computer Organization and Architecture I).~~
 - ~~CSCI 3321 (Software Engineering).~~
 - ~~CSCI 3720 (Database Systems).~~
2. An undergraduate cumulative GPA of at least 2.7.
3. GRE verbal of ~~160~~ **156** or higher, GRE quantitative of 144 or higher, and GRE analytical writing of 4.0 or higher. See note under Admissions Examinations on page 13 about using revised GRE scores after August 1, 2011.

B. Provisional Admission

Provisional admission requires that all of the following conditions be met:

1. ~~Bachelor of Science in computer science or a bachelor degree in a related field.~~ **Bachelor of Science degree in a science, mathematics, or engineering discipline or a Bachelor's degree in a related field.**
2. An undergraduate cumulative GPA of at least 2.4.
3. GRE verbal greater than 146, GRE quantitative greater than 141, and GRE analytical writing of 3.0 or higher. See note under Admissions Examinations on page 13 about using revised GRE scores after August 1, 2011.

Students who are admitted provisionally are required to meet with the graduate coordinator to determine the appropriate course of study. ~~Depending on their background a student will complete with a GPA of at least 2.7 all or a subset of the courses listed in item 1 for regular admission.~~ **Students are expected to pass CSCI 1301: Introduction to Programming Principles, or an equivalent course, with a grade of B or better to obtain regular admission.**

Standards of Progression and Graduation

- A. A program of study must be maintained for each student. The program of study (signed by the student, advisor, and ~~program~~ **graduate** coordinator) must be forwarded to Graduate Studies accompanying the student's application for graduation. Students are required to complete thirty hours of study. At least fifteen of these hours are from advanced graduate courses. ~~The program has a required technical writing component.~~ The Master's Project CSCI 8200, or Thesis CSCI 8210, required of all students, serves as a capstone course. Students must complete at least eighteen hours of graduate study before enrolling in CSCI 8200 or CSCI 8210. Students must achieve a grade of C or higher to receive credit for a class and must maintain a grade point average of 3.0 or higher in the program.
- B. If any change in the approved program of study is required, an amended program of study, signed by the student and the advisor, must be submitted to Graduate Studies.
- C. Students are encouraged to apply for graduation two semesters before the anticipated date of graduation. Note: A copy of the official program of study must accompany the candidate's application.

RATIONALE: The Department would like to re-activate the program in a new form. The scope of the program is expanded to accommodate the needs of a wider range of STEM majors interested in computing and information science related fields. The closest program is an online program in Information Systems at GSU, thus nothing similar is offered in the area.

Effective Term: Fall 2013

3. Create the following Course: **CSCI 6001 Foundations of computing** ?-?-?

Prerequisite: CSCI 1301 [Editor's note: Can an undergrad class be a prereq for a graduate class?]

Description: The course is intended to give prospective master's students a solid foundation in computer programming and computational thinking that are requisite for success in subsequent courses in the master's program. Topics include fundamental concepts of discrete mathematics, data structures, algorithms, and programming.

Rationale: This course provides a condensed introduction to the most fundamental concepts in computer science for non-CS undergraduate majors and is designed to fill in gaps of knowledge for non-CS undergraduate majors.

Effective Term: Fall 2013

CURCAT

Major Department: Computer Science and Information Technology

Can course be repeated for additional credit: No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: None

4. **CSCI 6371 Advanced Human Computer Interaction** ?-?-?

Prerequisite: CSCI 1301 [Editor's note: Can an undergrad class be a prereq for a graduate class?]

Description: Paradigms in modern user interface design and related human factors. Topics include: user-system compatibility analysis, techniques for user interface design, methods for interface analysis, multimodal interaction and interaction analysis.

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

CURCAT

Major Department: Computer Science and Information Technology

Can course be repeated for additional credit: No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: None

5. **CSCI 7010 Decision Support Systems** ?-?-?
Prerequisite: CSCI 6001

Description: Methods to model, represent, validate, integrate and enact decision support algorithms, which is aimed at the medical knowledge as conceived by humans, either in the form of expert knowledge of clinicians, or in textual form such as scientific articles or clinical guidelines.

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

CURCAT

Major Department: Computer Science and Information Technology

Can course be repeated for additional credit: No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: None

6. CSCI 7700 Advanced Computer Security

???

Prerequisite: CSCI 5700 or CSCI 5410

Description: Theory and practice of computer security. Topics include cryptography, cryptanalysis, digital certificates, coding theory, computer forensics, and system security.

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

CURCAT

Major Department: Computer Science and Information Technology

Can course be repeated for additional credit: No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: None

7. CSCI 7800 Computational Intelligence

???

Prerequisite: CSCI 6001

Description: Advanced algorithms including Bayesian learning, neural networks, fuzzy logic, genetic algorithms, support vector machines, clustering techniques and hybrid algorithms.

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

CURCAT

Major Department: Computer Science and Information Technology
Can course be repeated for additional credit: No
Maximum Number of Credit Hours: 3
Grading Mode: Normal
Instruction Type: Lecture
Course Equivalent: None

8. Modify the following Course:
CSCI 6040 System Analysis and Design Life Cycle Applications

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

9. Modify the following course:
CSCI 7600 COLLABORATIVE COMPUTING 3-0-3
 Prerequisite: ~~CSCI 3321 (Software Engineering) or equivalent CSCI 6001~~
Description: Study of computer based systems that support group work. Investigation of the World Wide Web, work flow systems, video conferencing, and virtual reality plus related languages and protocols. **The foundations for establishing collaborative systems that enables geographically distributed centers to share (a) the expertise in emergency cases (b) their research findings, and/or (c) the solutions to components of a partitioned health problem.**

Rationale: For alignment with the revised programs of study

Effective Term: Fall 2013

10. Delete the Following Courses:

[Editor's note: 5000-level classes must be deleted at the undergraduate level first]

~~**CSCI 5343G SYSTEMS PROGRAMMING UNDER UNIX**~~

~~**CSCI 5835G GRAPHICS RENDERING PRINCIPLES**~~

~~**CSCI 7400 TRANSACTION PROCESSING**~~

~~**CSCI 7830 CURRENT TRENDS IN COMPUTER GRAPHICS**~~

Rationale: For alignment with the revised programs of study Courses have not been taught in a number of semesters and are outdated.

Effective Term: Fall 2013

11. Modify the following program of study:

MASTER OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE

A. Core Required Course (3 hours)

CSCI 6100 Technical Writing * CSCI 6001 Foundations of Computing	3
*Waived for students with a BS in CS from an ABET accredited program	

Track 1: Computer Science

B. Foundation Courses (maximum ~~12~~ **15** hours)

CSCI 5100G Object-oriented Programming	3
CSCI 5210G High Performance Computing	3
CSCI 5220G Data Communications and Networks	3
CSCI 5322G Advanced Software Engineering	3
CSCI 5342G Advanced Operating Systems	3
CSCI 5343G Systems Programming Under Unix	3
CSCI 5350G Compiler Theory	3
CSCI 5370G Handheld And Ubiquitous Computing	3
CSCI 5410G Analysis Of Algorithms	3
CSCI 5360G Embedded Systems Programming	3
CSCI 5520G Rapid Java Development	3
CSCI 5610G Numerical Analysis	3
CSCI 5700G Computer Security	3
CSCI 5720G Advanced Database Systems	3
CSCI 5735G Data Mining	3
CSCI 5820G Machine Learning	3
CSCI 5825G Artificial Intelligence	3
CSCI 5830G Computer Graphics	3
CSCI 5835G Graphics Rendering Principles	3
CSCI 6100 Technical Writing	3

C. Fundamental Courses (minimum 9 hours)

CSCI 6040 System Lifecycle Applications	3
CSCI 7200 Real-time System Concepts and Implementation	3
CSCI 7300 Computer Networks	3
CSCI 7320 Software Development Process	3
CSCI 7400 Transaction Processing	3
CSCI 7500 Mobile Computing	3
CSCI 7600 Collaborative Computing	3
CSCI 7830 Current Trends in Computer Graphics	3
CSCI 7800 Computational Intelligence	3
CSCI 7835 Image Processing	3
CSCI 8100 Special Topics	3

Track 2: Cyber Security

The Cyber Security Track is built on the Post-Baccalaureate Certificate in Cyber Security program. Students in the certificate program have the option to continue working towards the MS degree.

***B. Content Courses (9 hours)**

***These Courses also required by the Post-Baccalaureate Certificate in Cyber Security program.**

ITEC/CRJU 5001G Cyber Security I	3
ITEC/CRJU 5002G Cyber Security II	3
CRJU 7862 Special Topics in Cyber Security & Criminal Investigations	3
CRJU 7864 Rules of Evidence/Legal Aspects of Cyber Security	3
CRJU 7865 First Responder Tools and Application	3
C. Fundamental Courses (12-15 hours)	
CSCI 5700G Computer Security	3
CSCI 5220G Data Communications and Networks	3
CSCI 6371 Advanced Human Computer Interaction	3
CSCI 7300 Computer Networks	3
CSCI 7500 Mobile Computing	3
CSCI 7010 Decision Support Systems	3
CSCI 7600 Collaborative Systems	3
CSCI 7700 Advanced Computer Security	3
CSCI 7800 Computational Intelligence	3
CSCI 8100 Special Topics	3

Track 3: Health Informatics [Editor's note: Should this be Clinical Informatics?]

The Health Informatics (?) Track is built on the Post-Baccalaureate Certificate in Health Informatics (?) program. Students in the certificate program have the option to continue working towards the MS degree.

B. Fundamental Courses (12 hours)

Select one of the following groups of courses

***Group I**

***These Courses also required by the Post-Baccalaureate Certificate in Health Informatics (?) program.**

MHSA/NURS 6010 Foundations of Clinical Informatics	3
MHSA/NURS 6020 Knowledge/Information Management	3
MHSA/NURS 6030 Project Management	3
MHSA/NURS/CSCI 6040 System Lifecycle Applications	3

Group II

MHSA 6000 Health Care Financing and Delivery Systems	3
MHSA 6100 Organization Theory/Organization Behavior in Health Care	3
MHSA 6800 Legal Environment of Health Care	3
PUBH 6100 Epidemiology	3

C. Fundamental Courses (9-12 hours)

CSCI 6371 Advanced Human Computer Interaction	3
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CSCI 5735G Data Mining	3
CSCI 7010 Decision Support Systems	3
CSCI 7600 Collaborative Systems	3
CSCI 7800 Computational Intelligence	3
CSCI 8100 Special Topics	3

D. Comprehensive Project, **All Tracks** (6 semester hours)

CSCI 8200 Master's Project	6
CSCI 8210 Master's Thesis	6

TOTAL **30 hours**

Rationale: The new tracks in Cyber Security and Health Informatics are designed to allow students in the *existing* Post-Baccalaureate Certificate programs to continue on to a MSCIS degree in a stackable fashion.

Effective: Fall 2013

12. Create the following certificate program:

POST-BACCALAUREATE CERTIFICATE IN SCIENTIFIC COMPUTING

A. Core Required Course (3 hours)

*CSCI 6001 Foundations of Computing	3
* Waived for students with a BS in CS degree from an ABET accredited program	

B. Content Courses (3 hours)

Choose one:

MATH 6900 Special Topics in Mathematics	3
MATH 6930 Special Topics in Applied Mathematics	3
MATH 7210 Quantitative Methods for Decision Making	3

C. Fundamental Courses (6-9 hours)

CSCI 5410G Analysis of Algorithms	3
CSCI 5610G Numerical Analysis	3
CSCI 5720G Advanced Database Systems	3
CSCI 5735G Data Mining	3
CSCI 5820G Machine Learning	3
CSCI 5825G Artificial Intelligence	3
CSCI 7800 Computational Intelligence	3
CSCI 7835 Image Processing	3
CSCI 8100 Special Topics	3

TOTAL **12 hours**

Rationale: The new Post-Baccalaureate Certificate program is designed to address the increasing demands for computing solutions to the "big data" problem. This certificate is targeted at STEM majors wishing to pursue a post-baccalaureate

certificate. This certificate is also stackable. Students obtaining this certificate could continue on to a MSCIS degree.

Effective: Fall 2013

- D. Mathematics (no items)
- E. Psychology (no items)

OTHER BUSINESS

ADJOURNMENT