

Armstrong

MEMORANDUM

To: University Curriculum Committee
From: Phyllis Panhorst
Catalog Editor and Committee Secretary
Date: September 25, 2013
Re: Agenda – October 2, 2013

The University Curriculum Committee will meet at 3:00 p.m. on Wednesday, October 2, 2013 in University Hall 282.

A G E N D A

CALL TO ORDER

Rick McGrath

APPROVAL OF MINUTES – September 4, 2013

ITEMS

I. College of Education

A. Adolescent and Adult Education (no items)

B. Childhood and Exceptional Student Education

1. Modify the following course

ECUG 3040 Childhood Development from Prenatal Period to Adolescence
Prerequisite: ~~Admission to Candidacy in the Department of Childhood and Exceptional Student Education~~

Rationale: The prerequisite is no longer required.

Effective Term: Fall 2014

2. Modify the following course

ECUG 3072 Teaching of Reading
Prerequisite: Admission to the Department of Childhood and Exceptional Student Education, ~~and ECUG 3071.~~

Rationale: The prerequisite is no longer required.

Effective Term: Fall 2014

II. College of Health Professions

A. Diagnostic and Therapeutic Sciences

Medical Laboratory Sciences

1. Create the following program of study track:

General information

Online Fast Track

The Medical Laboratory Science Online Fast track program is available for students who have completed a Bachelor of Science degree in biology, chemistry, or a related field. The program consists of an online didactic component and a training experience in a clinical laboratory. It provides students with a high quality academic and professional environment. The program graduate will be able to satisfy eligibility requirements for a professional certification exam at the MLS level. Graduates of the Medical Laboratory Science program will qualify for employment in a variety of settings, and can progress within the clinical laboratory science field to education, supervision or management positions. Students in this track must maintain training support at an approved clinical facility while enrolled in the program

PROGRAM FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE

Track III: Online Fast Track

B. Major Field Courses 54 hours

MEDT 3100 – Urinalysis and Body Fluids

MEDT 3200 – Clinical Bacteriology

MEDT 3300 – Clinical Hematology and Hemostasis

MEDT 3400 – Clinical Immunohematology

MEDT 3500 – Clinical Chemistry

MEDT 3600 – Clinical Laboratory Methodologies and Molecular Diagnostics

MEDT 3700 – Clinical Immunology

MEDT 3800 – Clinical Microbiology

MEDT 4115 – Clinical Practicum I

MEDT 4600 – Clinical Pathways & Critical Decision Making

MEDT 4900 – Laboratory Management and Education

C. Related Field Courses 6 hours

BIOL 2010 – Microbiology

HLPR 2000 – Introduction to Research in the Health Professions

Rationale: Offers the MLS Traditional Track program in an online format.

Effective term: Spring 2014

B. Health Sciences

1. Modify the following course:

HSCA 4630 Health Information Systems 3-0-3

Description: ~~Role and development of information systems in health programs. Emphasis on information based planning models, sources of health related data, and utilization of data for decision making.~~ **A survey of commonly utilized health information systems and technologies including electronic health records, computerized provider order entry/electronic prescribing systems, clinical decision support, telehealth and telemedicine, consumer informatics, and administrative support applications. Other topics of coverage include privacy and security of health information, legal/regulatory environment, and issues regarding procurement, implementation and evaluation of health information systems.**

Rationale: The course description is changed to reflect new protocols in health informatics.

Effective Term: Fall 2014

2. Create the following program of study track:

The following program of study was approved by the College of Health Professions on Aug. 13 and then approved by the College of Science and Technology on Sept. 9. It reflects joint programming by Health Sciences and Information Technology. It is an undergraduate track in the Department of Health Sciences focused on Health Informatics.

Program of Study for Bachelor of Health Science

Track 5: Health Informatics

- | | |
|---|-----------------|
| A. General Requirements (core Areas A, B, C, D.1, and E.....) | 42 hours |
| Core Area F | 18 hours |
| HSCC 2500 – Health Issues and Resources | |
| RESP 2110 – Medical Terminology | |
| ITEC 1301 – Fundamentals of Information Technology | |
| ITEC 1310 – Programming in Visual Basic | |
| MATH 2200 – Elementary Statistics | |
| CSCI 2070 – Introduction to Computer Ethics and Cyber Security | |
| Physical Education..... | 3 hours |
| First Year Seminar | 1 hour |
| B. Major Field Courses | 15 hours |
| HSCC 3110 – Legal Issues in the Environment of Health Care Environment | |
| HSCC 3140 – Epidemiology | |
| ITEC 2000 – Introduction to App Development | |
| ITEC 2530 – Operating Systems | |
| ITEC 3500 – Database Administration | |

- C. Related Field Courses.....39 hours**
HSCP 2000 – Ethical Theories and Moral Issues in Health
HSCC 3130 – Health Policy Issues
HSCA 4620 – Principles of Management for Health Services Organizations
HSCA 4630 – Health Information Systems
HSCA 4655 – Principles of Health Insurance and Reimbursement
HSCA 4660 – Survey of Health Outcomes
CSCI 3301 – Unix and Secure Web Development
ITEC 3600 – Systems Analysis and Design
ITEC 3710 – E-Commerce
ITEC 3800 – Data Communications and Networks
ITEC 4391 – Senior Capstone Project I
ITEC 4392 – Senior Capstone Project II
ITEC 5001U – Cyber-Security I
- D. Electives6 hours**
Choose 6 hours from the following:
ECON 2105 – Macroeconomics (if not taken in Area E)
ECON 2106 - Microeconomics (if not taken in Area E)
ITEC 5002U – Cyber Security II
MHSA 5500U – Managing Health Professionals
MHSA 5800U – Comparative Health Care Systems

Effective Term: Fall 2014

C. Nursing

1. Modify the following course:

NURS 4002 Leadership and Management for Professional Nurses
~~(4-0-4)~~ **(3-0-3)**

Rationale: Rapidly changing demands in the health care environment necessitate additional content in other courses.

Effective Term: Fall 2014

2. Modify the following course:

NURS 4004 Health Assessment
~~(2-3-3)~~ **(3-3-4)**

Rationale: The American Association of Colleges of Nurses has mandated inclusion of gerontology in all nursing courses. Changing the credit distribution will allow for more class time to address issues related to assessment of individuals across the life span.

Effective Term: Fall 2014

3. Modify the following course:

NURS 4005 Population Focused Community Nursing in a Global Society
(~~4-3-5~~) **(3-3-4)**

Rationale: Some content from this course has been integrated in other courses.

Effective Term: Fall 2014

4. Modify the following course:

NURS 4008 Pathophysiology/Pharmacology ~~(3-0-3)~~ **(4-0-4)**

Rationale: Rapidly changing issues related to pharmacology necessitate additional content in this area.

Effective Term: Fall 2014

D. Rehabilitation Sciences**1. Modify the following course:**

RHAB 4111 Pathophysiology for the rehabilitation Professions I
Prerequisite: ~~BIOL 2082~~ **BIOL 2081** or permission of instructor

Rationale: The faculty have reviewed the syllabi for both BIOL 2081 and BIOL 2082, and the course content in BIOL 2081 is sufficient for RHAB 4111.

Effective Term: Fall 2014

III. College of Liberal Arts (no items)

IV. College of Science and Technology**A. Biology****1. Modify the following course:**

BIOL 4910 RESEARCH 0-(3-9)-(1-3)

Prerequisite: permission of instructor or department head

Assigned research activity directed by a faculty member in the department, or at an appropriate outside facility. Project to be approved by the faculty member or external supervisor. May be taken for 1, 2 or 3 credit hours. Upon approval, 3 credit hours of research can substitute for a Biology elective in any track within the major. If repeated for additional credit, up to ~~3~~ **6** hours may be used as free electives.

Rationale: There is demand by both faculty and students to increase the number of opportunities for undergraduate research. Allowing additional credits in their programs will facilitate extended undergraduate research experience.

Effective Term: Fall 2014

CURCAT:

Major Department: Biology

Can course be repeated for additional credit? Yes

Maximum number of credits: 6 9

Grading Mode: Satisfactory/Unsatisfactory

Course Equivalent: None

2. Modify the following course:

BIOL 4950 INTERNSHIP

~~0-6-3 0-(3-9)-(1-3)~~

Prerequisite: permission of department head

Experiential learning opportunity sponsored by the Biology Department or an outside agency. Project selected, supervised, evaluated by faculty advisor and department head in consultation with outside agency. May be used to count only toward free electives. May be repeated ~~one~~ for **up to 6 total hours of additional** credit.

Rationale: Creating variable number of credit hours for the internship experience will give flexible options for students who seek internship opportunities.

Effective Term: Fall 2014

B. Chemistry and Physics

1. Create the following course:

BCHM 3301 BIOANALYTICAL CHEMISTRY

3-0-3

Prerequisite: CHEM 2300 (minimum grade of C)

Prerequisite or Corequisite: PHYS 1112K or PHYS 2212K

Description: Modern methods of instrumental analysis with emphasis on solving biological problems.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics

Can Course be repeated for additional credit? No

Maximum Number of Credit Hours: 3

Grading Mode: Normal

Instruction Type: Lecture

Course Equivalent: None

2. Create the following course:

BCHM 3403 BIOPHYSICAL CHEMISTRY

3-0-3

Prerequisite: CHEM 2300 (minimum grade of C) and MATH 1161

Prerequisite or Corequisite: PHYS 1112K or PHYS 2212K

Description: The fundamentals of physical chemistry from a biochemical perspective. Topics including gas laws, heat and work, and the laws of thermodynamics, material and reaction equilibrium, standard thermodynamic functions, and reaction kinetics.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics
Can Course be repeated for additional credit? No
Maximum Number of Credit Hours: 3
Grading Mode: Normal
Instruction Type: Lecture
Course Equivalent: None

3. Create the following course: 0-4-1
BCHM 3811 INTRODUCTION TO BIOCHEMICAL TECHNIQUES
Prerequisite: CHEM 2102 (minimum grade of C) & CHEM 2102L (minimum grade of C), CHEM 2300 (minimum grade of C)
Prerequisite or corequisite: CHEM 3801
Description: Experiments designed to introduce and teach standard biochemical techniques. Topics include protein purification (size exclusion, ion-exchange, and affinity chromatography), SDS-PAGE analysis, Michaelis-Menton kinetics, investigating protein-protein interactions. This course will be cross-listed with CHEM 3803 for Biochemistry majors.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics
Can Course be repeated for additional credit? No
Maximum Number of Credit Hours: 1
Grading Mode: Normal
Instruction Type: Laboratory
Course Equivalent: None

4. Create the following course: 0-4-1
BCHM 3812 ADVANCED BIOCHEMISTRY LABORATORY
Prerequisite: BCHM 3811 (minimum grade of C)
Prerequisite or corequisite: CHEM 3802
Description: Experiments that utilize and teach advanced biochemical techniques to support the instruction of CHEM 3801 and 3802. Experiments further emphasize the techniques used in BCHM 3811 and introduce recombinant DNA technologies.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics
Can Course be repeated for additional credit? No
Maximum Number of Credit Hours: 1
Grading Mode: Normal
Instruction Type: Laboratory
Course Equivalent: None

5. **Create the following course:** **2-0-2**
BCHM 4501 BIOCHEMISTRY SEMINAR
Prerequisite or corequisite: CHEM 3802 (minimum grade of C)
Description: Use of biochemical journals, references, and electronic information sources. Includes a variety of oral and written assignments. Department faculty involved in assessments.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics
Can Course be repeated for additional credit? No
Maximum Number of Credit Hours: 2
Grading Mode: Normal
Instruction Type: Lecture
Course Equivalent: None

6. **Create the following course:** **0-4-1**
BCHM 4811 BIOINSTRUMENTAL LABORATORY
Prerequisite or corequisite: BCHM 3301 and BCHM 3403
Description: An advanced laboratory course for biochemistry majors. The course applies spectrochemical techniques to biological problems to determine structure, function, thermodynamic and kinetic properties of biomolecules.

Rationale: This course emphasizes biochemistry and is needed to support a degree in biochemistry.

Effective Term: Fall 2014, pending BOR approval of degree program

CURCAT:

Major Department: Chemistry and Physics
Can Course be repeated for additional credit? No
Maximum Number of Credit Hours: 1
Grading Mode: Normal
Instruction Type: Laboratory
Course Equivalent: None

7. **Modify the following course:**
 CHEM 3801 BIOCHEMISTRY I 3-0-3
 Prerequisite: CHEM 2102 (**minimum grade of C**) & CHEM 2102L (**minimum grade of C**)

Rationale: The minimum grade requirement aligns with the other 3000 level courses in the Department.

Effective Term: Fall 2014

8. **Modify the following course:**
 CHEM 3802 BIOCHEMISTRY II ~~2-0-2~~ 3-0-3
 Prerequisite: CHEM 3801 (**minimum grade of C**)

Rationale: The minimum grade of C aligns with the other 3000 level courses in this program of study. The change from 2-0-2 to 3-0-3 will now align the Biochemistry II course with those at other universities, and provide time to cover the material in more depth.

Effective Term: Fall 2014

9. **Modify the following course:**
 CHEM 3803 Biochemistry Laboratory 0-4-1
 Pre-requisite: CHEM 2300 (**minimum grade of C**), CHEM 2102 (**minimum grade of C**)
and CHEM 2102L(minimum grade of C)
 Pre or Co-requisite: CHEM ~~3802~~ 3801

Rationale: The minimum grade of C aligns with the other 3000 level courses in this program of study. The course pre-reqs are aligned with BCHM 3811 to allow chemistry or biochemistry majors to take the courses with the same pre-requisites.

Effective Term: Fall 2014

9. **Create the following Degree Program**

PROGRAM FOR THE DEGREE BACHELOR OF SCIENCE IN BIOCHEMISTRY

A. General Requirements

Core Areas A, B, C, D and E.....42 hours

Biochemistry Majors are required to take a minimum of MATH 1113 in Core Area A and MATH 1161 in Core Area D. Students may choose to take MATH 1161 in Core Area A and MATH 2072 in Core Area D.

Area F.....18 hours

CHEM 1211/1211L and CHEM 1212/1212L (unless taken to satisfy Core Area D, in which case, substitute CHEM 2101/2101L and CHEM 2102/2102L)

Choose one sequence from:

PHYS 1111K- Introductory Physics I and

PHYS 1112K- Introductory Physics II or

PHYS 2211K- Principles of Physics I and

PHYS 2212K- Principles of Physics II or

One hour excess for MATH 1161

One hour lower division approved elective

Physical Education.....3 hours

- First Year Seminar.....1 hour**
- B. Major Field Courses.....36 hours**
- CHEM 2101/2101L Organic Chemistry I with Laboratory (4)
 CHEM 2102/2102L Organic Chemistry II with Laboratory (4)
 CHEM 2300 Principles of Chemical Analysis (4)
 BCHM 3301 Bioanalytical Chemistry (3)
 BCHM 3403 Biophysical Chemistry (3)
 CHEM 3801 Biochemistry I (3)
 BCHM 3811 Biochemistry Laboratory (1)
 CHEM 3802 Biochemistry II (3)
 BCHM 3812 Biochemistry Laboratory (1) or CHEM 3900 - Biochemistry approved
 CHEM 4500 Chemistry Seminar or BCHM 4501 Biochemistry Seminar (2)
 BCHM 4811 Bioinstrumental Laboratory (1)
 7 hours of approved upper division chemistry courses (examples below)
 CHEM 4100 Advanced Topics in Organic Chemistry (2) - Biochemistry Approved
 CHEM 4200 Advanced Topics in Inorganic Chemistry (2) - Biochemistry Approved
 CHEM 4300 Advanced Topics in Analytical Chemistry (2) - Biochemistry Approved
 CHEM 4400 Advanced Topics in Physical Chemistry (2) - Biochemistry Approved
 CHEM 4600 Advanced Topics in Interdisciplinary Chemistry (2) - Biochemistry
 Approved
 CHEM 3900 Chemical Research - Biochemistry Approved
 CHEM 4991 Advanced Chemical Research - Biochemistry Approved
- C. Related Field Courses.....16 hours**
- BIOL 1107 (and lab) – Principles of Biology I (4)
 BIOL 2400 Introduction to Cell and Molecular Biology (3)
 BIOL 3000 Cellular Biology (3)
 Minimum 6 hours from:
 BIOL 3700 Genetics (4)
 BIOL 4650 Immunology (4)
 BIOL 4400 Virology (3)
 BIOL 4000 Cancer Biology (3)
 BIOL 4220 Endocrinology (3)
 BIOL 4500 Bioinformatics and Biotechnology (3)
 Or other department approved upper division biology courses
- D. Electives.....8 hours**
- 5 upper division electives
 3 free electives

Total Semester Hours

124 hours

E. Exit Exam

Effective Term: Fall 2014 pending BOR approval

4 Year Plan

Fall	Year 1		Spring	Year 1	
MATH	1113	3	MATH	1161	4
ENGL 1101		3	Area B		3
CHEM	1211	4	CHEM	1212	4
BIOL	1107	4	elect.		3
PE		1	PE		1
FYSX		1			
	Total	16		Total	15

Fall	Year 2		Spring	Year 2	
CHEM	2101	3	CHEM	2102	3
CHEM	2101L	1	CHEM	2102L	1
PHYS	1111K	4	PHYS	1112K	4
ENGL	1102	3	CHEM	2300	4
BIOL	2400	3	Area	C	3
Area	B	2	PE		1
	Total	16		Total	16

Fall	Year 3		Spring	Year 3	
Area	E	3	RF BIOL		3
CHEM	3801	3	CHEM	3802	3
BCHM	3811	1	BCHM	3812	1
HIST	1100	3	Area	E	3
Area	C	3	Area	E	3
BIOL	3000	3	Upper Elect		3
	Total	16		Total	16

Fall	Year 4		Spring	Year 4	
RF BIOL		3	BCHM	4501	2
BCHM	3301	3	BCHM	3403	3
Upper CHEM		4	BCHM	4811	1
Elective		2	Upper CHEM		3
Upper Elective		2	elective		3
			Area	E	3
	Total	14		Total	15

Rationale: BS in Biochemistry

Rationale: The biochemistry degree presented is a specific program for students to earn a BS degree in biochemistry. The classes chosen are similar to those at other universities that have an undergraduate biochemistry degree. Currently, Armstrong offers a B.A. degree program in chemistry with a biochemistry track; following approval of this new program this track will be removed. Most of the new classes have been strategically cross listed with existing classes so the implementation of this degree can be achieved without the hiring of a new faculty member. There will be no need for additional classroom space since all of the lecture based classes initially will be cross listed with existing CHEM courses (Table 1).

Table 1: Courses which will be concurrently taught with existing CHEM courses.

Biochemistry Course (BCHM)	Title	Chemistry Course (CHEM)
BCHM 3301	Bioanalytical Chemistry	CHEM 3300
BCHM 3403	Biophysical Chemistry	CHEM 3401
BCHM 3811	Intro. to Biochemical Tech.	CHEM 3803

Only BCHM 3812 and BCHM 4811 will be taught as new, non-cross listed courses. BCHEM 4501 is a seminar course and can be cross listed with CHEM 4500, however, the pre-requisites have to be different to assure enough Biochemistry content prior to senior seminar.

BCHM 3811 and BCHM 3812 will be housed in the biochemistry teaching laboratory (Science Center 2301). BCHM 4811, Bioinstrumental Laboratory will be taught out of our instrumental analysis laboratory (Science Center 2202). Thus no new space will be required for instruction. These laboratories are currently equipped with all of the necessary instruments that will be needed to support those classes.

The program will initially be required to add the equivalent of two laboratory sections that are not presently being taught (BCHM 3812 and BCHM 4811). We anticipate this to be reallocation of faculty resources from our present upper division course load. Presently, we have to split upper division laboratories because of enrollment pressures in those courses (CHEM 3200, 3300, 3401, 3402). We anticipate the biochemistry program will assist with alleviating those pressures and allow for reallocation of those faculty assignments to fill the additional 8 hours of instruction (down from 16 presently allocated to the second section of those courses). Thus, we anticipate initially no additional faculty will be needed to support the program of study and also, no impact on our lower level chemistry offerings should be observed (such as Survey of Chemistry I and II, Principles of General Chemistry I and II and Organic Chemistry I and II – all with laboratory).

The program of study has been shared in the past with members of the Biology Department with no concerns raised. There are no hidden pre-requisites and the program is flexible enough to minimize course load impacts on Biology (BIOL 2400 and 3000 will be most impacted as program grows).

The need for a biochemistry degree at Armstrong addresses the three key criteria set by the Board of Regents.

Need for the program - The field of biochemistry is one of the fastest growing areas of science. The city of Savannah is also growing in the field of biomedical sciences as a pharmacy school (opened fall 2003), a cancer research center (opened fall 2006), and a medical school (opened fall 2008) have made their home here. We believe it is important for Armstrong to provide students formal training in biochemistry to address this local need. This is of particular importance since many pharmacy schools are now requiring students to take upper level biochemistry courses prior to enrollment and it is predicted other pharmacy schools will follow this trend. In addition, the Medical College Admissions Test (MCAT) has announced that, starting the fall of 2015, they will be including a Biological and Biochemical Foundations of Living Systems section, which will pertain to specific topics covered in biochemistry. This section significantly increases the biochemistry component on their test. Furthermore, Georgia Regents University's School of Dental Medicine will require biochemistry to enter their program starting the fall of 2015. As a result, the importance of having a solid academic biochemistry background is becoming a necessity for pre-professional students in Georgia and throughout the United States.

Clearly there has been a shift in these professional schools' requirements, and developing a biochemistry degree program at Armstrong would allow us to capture students looking for this degree in Southeast Georgia. In addition, the Georgia department of economic development currently has a Georgia Research Alliance along with several bioresearch centers. A biochemistry degree will produce graduates with the

educational and research background needed to work at these centers. According to the Georgia Department of Labor statistics the 5th highest projected annual growth rate of all jobs in the state is “Medical Scientists, Except Epidemiologists” and biochemistry majors could support this projected need, which is a key component of the USG’s 2013-2018 strategic plan. There has been additional pressure from the state and national legislators to increase the number of STEM (Science, Technology, Engineering, and Math) graduates. Consequently, the formula for state funding is proposed to change starting fall 2015 to include a specific accounting of STEM graduates in funding decisions. Enhancing our STEM degree options with an additional Biochemistry degree could offer a small financial incentive for our university and would support the need to increase STEM professionals.

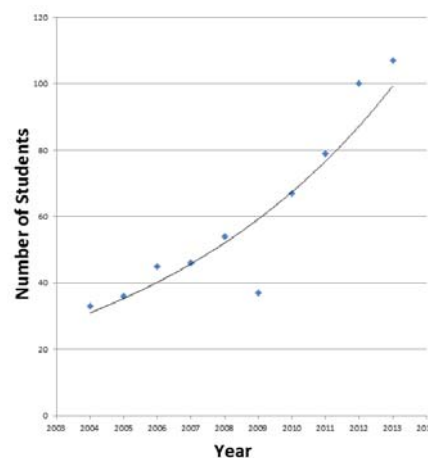
Demand for the program – Currently, Kennesaw State University (KSU) is the only USG primarily undergraduate institution that has developed a biochemistry degree program. In 2003, the Department of Chemistry at KSU started their biochemistry program and became the Department of Chemistry and Biochemistry. According to the KSU fact book their biochemistry declared majors have increased from 56

Degree	Fall 2003	Fall 2012	10 year % change
Biochemistry	56	216	286%
Chemistry	298	316	6%
Department of Chemistry & Biochemistry	354	532	50%
Biology	642	1176	83%
College of Science and Mathematics	2266	3431	51%

Table 2. Ten year statistics from KSU fact book.

in 2003 to 216 in 2012 (increase of 286%), the fastest growth rate of any major (Table 2). The chemistry major had modest growth, at 6%, due to the fact that majors interested in chemistry now had a choice of major. However, as a whole, the Department of Chemistry and Biochemistry grew at a 50% rate, the same as the rate of growth of the college. There may be some concern that installation of the biochemistry degree would move students from their declared biology major into a biochemistry program. However, at KSU the number of biology majors grew at a rate of 83%, which is higher than the College of Science and Mathematics and the Department of Chemistry and Biochemistry overall. Along the same timeframe here at Armstrong, the number of students enrolled in upper level biochemistry courses has more than tripled (Figure 1). Perhaps this popularity is attributed to the fact that science is rapidly moving toward the interdisciplinary boundaries and that there has been an increase demand nationally and particularly in southeast Georgia for this field of chemistry. According to a recent American Chemical Society survey, interdisciplinary employment now dominates the field of chemistry with 43% chemists indicating they worked in “chemistry-related fields”—such as biochemistry and materials science. It is important that we continue to update our curriculum and degree programs so that we can continue to produce competitive students.

In addition, Armstrong has a large percentage of female students (66%). Analysis by the American Chemical Society has shown that the profile of specialty by gender indicates relatively low percentages of women working in physical chemistry (15%); polymer chemistry (18%); organic chemistry (19%); and inorganic chemistry (20%). Women’s highest saturation is in biochemistry and chemical education, each claiming 37%. As a result, this program will better meet the needs and career tendencies of our school population that is predominately female. In addition, if these statistical numbers hold true, this could be a small step in addressing the disciplinary need to recruit more women into the chemistry field.



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Non-duplication of other USG programs – All of the USG offered degrees in biochemistry are located in north Georgia/Atlanta area (GA Tech, Kennesaw, and Univ. of GA). Currently, universities in the southern and southeastern regions of the state do not have a program for students wanting to pursue a degree in biochemistry. A BS in biochemistry at Armstrong could meet this regional need.

C. Computer Science and Information Technology

1. Modify the following program of study:

PROGRAM FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE

C. Related Field Courses..... 14 hours

ENGL 3720 - Business and Technical Communication

STAT 3211 - Statistics Applications I

One of the following:

MATH 2160 – Linear Algebra

CSCI 3625 – Advanced Discrete Structures

STAT 3222 - Statistics Applications II

MATH 3411 - Differential Equations

MATH 3460 - Introduction to Operations Research

~~MATH 3480 – Optimization and Graph Theory~~

CSCI 5610U - Numerical Analysis (If used here, may not also be counted as major field course.)

Six additional semester hours of laboratory science courses from Core D Option IIA for science majors or science or engineering courses having a Core D Option II A laboratory science course as a prerequisite (unless already taken to meet core area D requirements)

Rationale: For compliance to standards of the Accreditation Board for Engineering and Technology (ABET). MATH 2160 was a hidden pre-requisite for another course and MATH 3480 has changed in content (Optimization only, not Optimization and Graph Theory) such that it is not the course needed in the program.

Effective Term: Fall 2014

2. Modify the following course:

ITEC 1310 PROGRAMMING IN VISUAL BASIC FOR IT

3-0-3

Prerequisite: MATH 1111

~~Introduction to the Visual Basic programming language and the concepts and techniques of microcomputer windows and GUI programming. Syntax of Visual Basic, forms, properties, controls, variables, decision structures, functions, and subroutines. Development of modular programs for event-driven applications.~~ **Introduction to basic concepts and techniques of a contemporary programming language. Topics include language syntax, variables, decision structures, loop structures, functions, and IDE. Development of modular programs for event-driven applications.**

Rationale: The rapid development of IT in recent years has significantly diminished the importance of the Visual Basic programming language.

Effective Term: Fall 2014

3. Create the following course:

ITEC 2000 INTRODUCTION TO APP DEVELOPMENT

3-0-3

Prerequisite: CSCI 1301 or ITEC 1310

Introduction to mobile computing and mobile application software development. Topics include mobile computing devices, mobile operating systems, app programming languages and APIs, app development environments, app programming and development cycles.

Rationale: An introductory course on app programming, primarily to serve the computing requirements of Health Informatics and Economics programs.

Effective Term: Fall 2014

CURCAT

Major Department: Computer Science and Information Technology

Cross-listed: No

Repeatable: No

Grading Mode: Normal

Instruction Type: Lecture

Equivalent Courses: None

4. Modify the following course:

CSCI 3301 UNIX AND SECURE WEB DEVELOPMENT

3-0-3

Prerequisite: CSCI 1301 or ITEC 1310

Rationale: For the new Health Informatics and Economics programs to include this course without hidden prerequisite.

Effective Term: Fall 2014

5. The program of study approved at the COHP curriculum committee was also approved in the approved by CST. It represents a joint program between CS/IT and Health Science, a track in the BHS degree focused on Health Informatics at the Undergraduate Level and will be submitted by COHP

D. Engineering Studies (no items)

E. Mathematics (no items)

F. Psychology (no items)

OTHER BUSINESS

A. Charge from the Faculty Senate: The Faculty Senate is considering realigning and reducing the number of senate committees. One such committee is Interdisciplinary Programs. You are asked to consider how Interdisciplinary Programs may be better represented through UCC. One such suggestion is to have one ex-officio member of UCC chosen from among the directors of Interdisciplinary programs.

ADJOURNMENT