

**To: Faculty Senate****From: Don Adams, Chair of the Curriculum Committee****Date: 5/4/2012**

On May 2, 2012, the Curriculum Committee met and approved the following items. On behalf of the Curriculum Committee, I submit these items for the approval of the Faculty Senate at its meeting on Monday, May 7, 2012.

**A. The 2012-14 Chair of the Curriculum Committee will be Mark Jackson (Biology)****B. Academic Standards' [Guidelines for Program Requirements](#).****C. List of Courses Scheduled for Deletion**

| Subj Code   | Crse Numb  | Term Last Offered | Term Desc          |
|-------------|------------|-------------------|--------------------|
| BE          | 410        | 200940            | Spring 2009        |
| BE          | 501        | 200950            | Summer 2009        |
| BE          | 571        | 200950            | Summer 2009        |
| BUS         | 590        | 200950            | Summer 2009        |
| CECW        | 510        | 200740            | Spring 2007        |
| CIE         | 100        | 200920            | Winter 2008-2009   |
| <b>COMM</b> | <b>512</b> | <b>200640</b>     | <b>Spring 2006</b> |
| <b>ED</b>   | <b>545</b> | <b>200950</b>     | <b>Summer 2009</b> |
| <b>EDL</b>  | <b>634</b> | <b>200950</b>     | <b>Summer 2009</b> |
| <b>ENG</b>  | <b>386</b> | <b>200910</b>     | <b>Fall 2008</b>   |
| <b>ESCI</b> | <b>462</b> | <b>200940</b>     | <b>Spring 2009</b> |
| <b>ESL</b>  | <b>201</b> | <b>200540</b>     | <b>Spring 2005</b> |
| <b>ETC</b>  | <b>457</b> | <b>200840</b>     | <b>Spring 2008</b> |
| <b>HIST</b> | <b>251</b> | <b>200810</b>     | <b>Fall 2007</b>   |
| <b>HIST</b> | <b>474</b> | <b>200840</b>     | <b>Spring 2008</b> |
| <b>HIST</b> | <b>590</b> | <b>200850</b>     | <b>Summer 2008</b> |
| ITBD        | 220        | 200840            | Spring 2008        |
| ITBD        | 221        | 200840            | Spring 2008        |
| ITBD        | 222        | 200740            | Spring 2007        |
| ITBD        | 223        | 200840            | Spring 2008        |
| MATH        | 449        | 200950            | Summer 2009        |
| <b>MATH</b> | <b>470</b> | <b>200950</b>     | <b>Summer 2009</b> |
| MKT         | 480        | 200820            | Winter 2007-2008   |
| MKT         | 495        | 200850            | Summer 2008        |
| <b>PS</b>   | <b>432</b> | <b>200910</b>     | <b>Fall 2008</b>   |
| SCI         | 452        | 200910            | Fall 2008          |
| SCI         | 456        | 200640            | Spring 2006        |
| <b>SPED</b> | <b>577</b> | <b>200310</b>     | <b>Fall 2002</b>   |
| <b>SPED</b> | <b>578</b> | <b>200940</b>     | <b>Spring 2009</b> |
| TE          | 513        | 200650            | Summer 2006        |
| VTE         | 328        | 200510            | Fall 2004          |
| <b>WGSS</b> | <b>241</b> | <b>200810</b>     | <b>Fall 2007</b>   |

**D. Items Approved****1. Biology**

**1.1. Graduate Course Revision: [ACP 500](#)****1.1.1. Revise ACP 500 to the following:**

ANES 500 Basic Principles of Nurse Anesthesia Practice 3

Prereq.: Completion of 24 credits in DNAP program or 21 credits in M.S. Biological Sciences: Anesthesia Program. Overview of current anesthetic practice (45 hours). Topics include pre-anesthesia evaluation, fluid and blood therapy, monitoring the anesthesia machine, acid-base balance, pain management, post anesthesia care unit, and regional anesthesia. Conducted at affiliated hospital school of nurse anesthesia. Spring, Summer.

**1.2. Graduate Course Addition: [ANES 501 Advanced Principles of Nurse Anesthesia Practice I](#)****1.2.1. Create course as follows:**

ANES 501 Advanced Principles of Nurse Anesthesia Practice I 3

Prereq.: ANES 500. Coreq.: ACP 730 or ACP 731. Advanced principles and techniques for anesthesia in cardiac, pulmonary, pediatric, obstetrical, neurological, vascular, gynecologic, urological, ophthalmic, emergency, and other case management; also includes regional anesthesia theories and techniques and principles of advanced fluid and electrolyte therapy; principles of advanced fluid and electrolyte therapy; anesthesia management of patients with altered endocrine function, obesity and specific pathophysiology in relation to anesthesia administration and management. Summer, Fall.

**1.3. Graduate Course Addition: [ANES 502 Advanced Principles of Nurse Anesthesia Practice II](#)****1.3.1. Create course as follows:**

ANES 502 Advanced Principles of Nurse Anesthesia Practice II 1

Prereq.: ANES 501 and cumulative GPA of 3.00. Coreq.: ACP 731 or ACP 732. Continuation of ANES 501.

**1.4. Graduate Course Addition: [ANES 510 Physics in Anesthesia](#)****1.4.1. Create course as follows:**

ANES 510 Physics in Anesthesia 1

Coreq.: ACP 730. Physics with respect to anesthesia theory, practice, equipment, and safety. Includes a review of organic molecules from which anesthetics and accessory drugs are derived, diffusion and factors affecting diffusion; properties of flow characteristics; gas laws; electricity; lasers; and physics of the anesthesia machine, vaporizers, and cylinders. Summer.

**1.5. Graduate Course Addition: [ANES 515 Professional Aspects of Nurse Anesthesia Practice](#)****1.5.1. Create course as follows:**

ANES 515 Professional Aspects of Nurse Anesthesia Practice 3

Prereq.: ANES 500 and cumulative GPA of 3.00. Coreq.: ACP 731 or ACP 733. Practice of anesthesia including professional behavior; biomedical ethics and ethical responsibility; social, political, legal, and economic aspects of anesthesia practice; substance abuse; quality assurance, risk management and insurance; government regulation of practice; historical background and development of nurse anesthesia.

**1.6. Graduate Course Addition: [ANES 528 Anesthesia Pharmacology](#)****1.6.1. Create course as follows:**

ANES 528 Anesthesia Pharmacology 2

Prereq.: Cumulative GPA of 3.00. Prereq. or Coreq.: ANES 500. Coreq.: ACP 730. Pharmacology of drugs used in anesthesia with emphasis on pharmacokinetics and dynamics of the volatile and non-volatile inhalation agents, intravenous anesthetic and accessory/adjunct drugs (induction agents, muscle relaxants, opioids, benzodiazepines, butyrophenones, anticholinergics, and anticholinesterases), and local anesthetics. The signs and stages of anesthesia will be covered along with theories of narcosis. Summer.

**1.7. Graduate Course Addition: [ANES 590 Clinical Correlation Conferences](#)****1.7.1. Create course as follows:**

ANES 590 Clinical Correlation Conferences 2

Prereq.: ANES 501. Coreq.: ACP 732 or ACP 733. Lectures, clinical case study presentations, student presentations, and analysis of current anesthesia literature and research. Spring, Summer.

**1.8. Graduate Course Addition: [ACP 730 Anesthesia Clinical Practicum I](#)****1.8.1. Create course as follows:**

**ACP 730 Anesthesia Clinical Practicum I 1**

Prereq.: Completion of 36 credits in DNAP Entry-level Specialization program and cumulative GPA of 3.00. Structured, supervised clinical training and experience to learn how to organize, administer, and manage anesthesia in a wide range of ages of patients (minimum 32 hours per week). Conducted at affiliated hospital school of nurse anesthesia or affiliated sites. Summer.

**1.9. Graduate Course Addition: [ACP 731 Anesthesia Clinical Practicum II](#)****1.9.1. Create course as follows:****ACP 731 Anesthesia Clinical Practicum II 1**

Prereq.: ACP 730 and cumulative GPA of 3.00. Continuation of ACP 730. Additional minimum of 32 hour per week. Conducted at affiliated hospital school of nurse anesthesia or affiliated clinical sites. Fall.

**1.10. Graduate Course Addition: [ACP 732 Anesthesia Clinical Practicum III](#)****1.10.1. Create course as follows:****ACP 732 Anesthesia Clinical Practicum III 1**

Prereq.: ACP 731 and cumulative GPA of 3.00. Continuation of ACP 731. Additional minimum 32 hours per week. Conducted at affiliated hospital school of nurse anesthesia or affiliated clinical sites. Spring.

**1.11. Graduate Program Revision: [Doctor of Nurse Anesthesia Practice](#)****1.11.1. Change program to the following:**

The Doctor of Nurse Anesthesia Practice (DNAP) program is a practice doctorate for bachelor's prepared nurses to become DNAP-prepared certified registered nurse anesthetists (CRNAs) (DNAP: Entry-level Specialization) and an advanced program for master's level practicing CRNAs to become DNAP-prepared practitioners (DNAP: Advanced Specialization), and to expand their background in areas of biology and anesthesia specific to their discipline. The program focuses on use of critical thinking skills and analyses to evaluate clinical practice, health care, and patient safety; and analyze biological research and incorporate knowledge from biological systems into clinical practice. The DNAP prepares CRNAs for positions of leadership and management, patient care, and nurse anesthesia education. The CCSU practice doctorate program courses will use a mixture of hybrid and on-campus classes.

DNAP: Entry-level Specialization 81-87 credits (3 years, including doctoral capstone)

**I. Biological Systems Core (27 credits)**

CHEM 550 Basic Organic and Biological Chemistry 3

BIO 500 Seminar in Biology 2

BIO 517 Human Anatomy, Physiology, and Pathophysiology 6

BIO 518 Pathophysiology and Applied Physiology 3

BIO 519 Advanced Neuroscience 3

BIO 528 Pharmacology 4

BIO 530 Immunology 3

BIO 598 Research in Biology 3

**II. Professional Core (21 credits)**

BIO 525 Advanced Physical Health Assessment for Nurse Anesthetists 3

BIO 725 Bioethics in Nurse Anesthesia 3

BIO 730 Human Factors and Patient Safety for Nurse Anesthetists 3

BIO 736 Evidence-based Practice and Biostatistics 3

BIO 739 Advanced Topics in Pharmacology 3

BIO 742 Advanced Topics in Nurse Anesthesia 3

BIO 740 Leadership in Nurse Anesthesia Education 3

**III. Anesthesia Clinical Core (27 credits)**

ANES 500 Basic Principles of Nurse Anesthesia Practice 3

ANES 501 Advanced Principles of Nurse Anesthesia Practice I 3

ANES 502 Advanced Principles of Nurse Anesthesia Practice II 1

ANES 510 Physics in Anesthesia 1

ANES 515 Professional Aspects of Nurse Anesthesia Practice 3

ANES 528 Anesthesia Pharmacology 2

ANES 590 Clinical Correlation Conference 2

ACP 730 Anesthesia Clinical Practicum I 1

ACP 731 Anesthesia Clinical Practicum II 1

ACP 732 Anesthesia Clinical Practicum III 1

ACP 733 Advanced Anesthesia Clinical Practicum I 3

ACP 734 Advanced Anesthesia Clinical Practicum II 3  
ACP 735 Advanced Anesthesia Clinical Practicum III 3

IV. Capstone 6 credits  
Doctoral Comprehensive Exam  
BIO 745 Doctoral Capstone Project I 3  
BIO 746 Doctoral Capstone Project II 3  
BIO 747 Doctoral Capstone Project III (if needed) 1

DNAP: Advanced Specialization 33-42 credits (Part-time: 2 years, including doctoral capstone)

I. Biological Systems and Professional Core (18-21 credits)

BIO 725 Bioethics in Nurse Anesthesia 3  
BIO 730 Human Factors and Patient Safety for Nurse Anesthetists 3  
BIO 736 Evidence-based Practice and Biostatistics 3  
BIO 739 Advanced Topics in Pharmacology 3  
BIO 742 Advanced Topics in Nurse Anesthesia 3  
BIO 740 Leadership in Nurse Anesthesia Education 3  
BIO 525 Advanced Physical Health Assessment for Nurse Anesthetists (if needed) 3

II. Anesthesia Clinical Core (9 credits)

ACP 733 Advanced Anesthesia Clinical Practicum I 3  
ACP 734 Advanced Anesthesia Clinical Practicum II 3  
ACP 735 Advanced Anesthesia Clinical Practicum III 3

III. Capstone 6 credits  
BIO 745 Doctoral Capstone Project I 3  
BIO 746 Doctoral Capstone Project II 3  
BIO 747 Doctoral Capstone Project III (if needed) 1

## 2. Biomolecular Sciences

### 2.1. Undergraduate Course Addition: [BMS 480 Emergency Medical Services Instructor](#)

#### 2.1.1. Create course as follows:

BMS 480 Emergency Medical Services Instructor 4

Prereq.: BMS 380 or equivalent, and current CT EMT certification. Examination of principles and practices related to teaching and learning in emergency medical services. Emphasizes application of pedagogical and andragogical theory and research applicable to the instruction of pre-hospital emergency medical services professionals who instruct Emergency Medical Responders (EMR), Emergency Medical Technicians (EMT) and others emergency medical professionals. 25 hours of clinical field teaching experience required. Successful completion leads to Connecticut Office of Emergency Medical Services certification as an Emergency Medical Services Instructor. Irregular.

## 3. Chemistry

### 3.1. Undergraduate Course Revision: [CHEM 320 Biophysical Chemistry](#)

3.1.1. Change prerequisite to the following: PHYS 122 or 126 (either may be taken concurrently), CHEM 212, MATH 152

3.1.2. Change cycling from "Spring (E)" to "Fall."

### 3.2. Undergraduate Course Revision: [CHEM 321 Physical Chemistry of Thermodynamics & Kinetics](#)

3.2.1. Change prerequisite to the following: PHYS 126 (may be taken concurrently), CHEM 212, CHEM 301, MATH 221.

### 3.3. Undergraduate Course Revision: [CHEM 322 Physical Chemistry of Quantum & Statistical Mechanics](#)

3.3.1. Change prerequisite only: PHYS 126 (may be taken concurrently), CHEM 212, CHEM 301, MATH 221.

### 3.4. Undergraduate Course Revision: [CHEM 455 Biochemistry Laboratory](#)

#### 3.4.1. Change course to the following:

CHEM 455 Biochemistry Laboratory 1

Prereq.: CHEM 213 and either CHEM 354 or BMS 496. Experimental work in Biochemistry. One three-hour laboratory period per week. Spring.

### 3.5. Undergraduate/Graduate Course Revision: [CHEM 432 Chemistry Seminar](#)

**3.5.1. Revise course as follows:**

- (1) change prerequisite to: "CHEM 320 or 321 or 322"
- (2) delete Graduate credit

**3.6. Undergraduate/Graduate Course Revision: [CHEM 459 Bioinorganic Chemistry](#)****3.6.1. Revise course as follows:** change prerequisite to "CHEM 354 or BMS 496"**3.7. Undergraduate/Graduate Course Revision: [CHEM 460 Inorganic Symmetry & Spectroscopy](#)****3.7.1. Revise course as follows:**

- (1) change prerequisite to: "CHEM 320 or 321 or 322"
- (2) delete Graduate credit

**3.8. Undergraduate/Graduate Course Revision: [CHEM 461 Descriptive Inorganic Chemistry](#)****3.8.1. Revise course as follows:**

- (1) change prerequisite to: "CHEM 320 or 321 or 322"
- (2) delete Graduate credit

**3.9. Undergraduate/Graduate Course Revision: [CHEM 462 Inorganic Chemistry Laboratory](#)****3.9.1. Revise course as follows:**

- (1) change prerequisite to: "CHEM 316"
- (2) delete Graduate credit

**3.10. Undergraduate Program Revision: [Major in Chemistry, B.S.](#)****3.10.1. Revise program to the following:**

Chemistry Core (27 credits)

CHEM 161 General Chemistry I 3  
CHEM 162 General Chemistry I Lab 1  
CHEM 163 General Chemistry II 3  
CHEM 164 General Chemistry II Lab 1  
CHEM 210 Organic Chemistry I 3  
CHEM 211 Organic Chemistry I Lab 1  
CHEM 212 Organic Chemistry II 3  
CHEM 213 Organic Chemistry II Lab 1  
CHEM 238 Introduction to Research 1  
CHEM 301 Analytical Chemistry 4  
CHEM 316 Spectrometric Identification of Organic Compounds 3  
CHEM 432 Chemistry Seminar 2  
CHEM 438 Undergraduate Research 1

BS in Chemistry

Chemistry Core plus 10 credits selected from the following.

Choose 3 credits from:

CHEM 354 Biochemistry

OR

CHEM 406 Environmental Chemistry

OR

CHEM 485 Topics in Chemistry

Choose 3 credits from:

CHEM 320 Biophysical Chemistry

OR

CHEM 321 Physical Chemistry of Thermodynamics & Kinetics

OR

CHEM 322 Physical Chemistry of Quantum & Statistical Mechanics

Choose 4 credits from:

CHEM 402 Instrumental Methods in Analytical Chemistry

OR

Choose 3 credits from:

CHEM 460 Inorganic Symmetry & Spectroscopy

OR

CHEM 461 Descriptive Inorganic Chemistry

WITH

1 additional credit from:

CHEM 323 Physical Chemistry Lab

OR

CHEM 455 Biochemistry Lab

OR

CHEM 462 Inorganic Chemistry Lab

Related Requirements (16 credits):

PHYS 121 OR 125 General OR University Physics I 4

PHYS 122 OR 126 General OR University Physics II 4

MATH 119 Pre-Calculus with Trigonometry 4

MATH 152 Calculus I 4

A minor is not required for this major.

BS in Chemistry (American Chemical Society accredited)

This program is designed for students wishing to go on to graduate-level studies in chemistry.

Chemistry Core plus 22 credits as follows:

CHEM 321 Physical Chemistry of Thermodynamics & Kinetics 3

CHEM 322 Physical Chemistry of Quantum & Statistical Mechanics 3

CHEM 323 Physical Chemistry Lab 1

CHEM 354 Biochemistry 3

CHEM 402 Instrumental Methods in Analytical Chemistry 4

CHEM 455 Biochemistry Lab 1

CHEM 460 Inorganic Symmetry & Spectroscopy 3

CHEM 461 Descriptive Inorganic Chemistry 3

CHEM 462 Inorganic Chemistry Lab 1

Related Requirements (19-20 credits)

PHYS 125 University Physics I 4

PHYS 126 University Physics II 4

MATH 152 Calculus I 4

MATH 221 Calculus II 4

The student must also complete one additional course from the following approved list:

MATH 218 Discrete Mathematics 4

MATH 222 Calculus III 4

MATH 226 Linear Algebra and Probability for Engineers 4

MATH 228 Introduction to Linear Algebra 4

CS 151 Computer Science I 3

A minor is not required for this major.

### 3.11. Undergraduate Program Revision: **Major in Biochemistry, B.S.**

#### 3.11.1. Revise program to the following:

The BS in biochemistry program provides a strong foundation in both molecular biology and chemistry and is based on faculty, facilities, and research resources in both the Department of Biomolecular Sciences and the Department of Chemistry and Biochemistry. In addition to in-class laboratory instruction, this interdepartmental program emphasizes independent student research carried out under the guidance of a faculty member from either department. This program is designed to prepare students for careers or advanced study in molecular biology, biochemistry, or health-related fields.

Program

Major in Biochemistry, BS (Non-teaching, 56-58 credits)

**Biochemistry Core Requirements (37 credits)**

BMS 102 Introduction to Biomolecular Science 3  
BMS 103 Introduction to Biomolecular Science Laboratory 1  
BMS 190 Introduction to Research I 0.5  
BMS 201 Principles of Cell and Molecular Biology 4  
BMS 290 Introduction to Research II 0.5  
CHEM 161 General Chemistry I 3  
CHEM 162 General Chemistry I Laboratory 1  
CHEM 163 General Chemistry II 3  
CHEM 164 General Chemistry II Laboratory 1  
CHEM 301 Analytical Chemistry 4  
CHEM 210 Organic Chemistry I 3  
CHEM 211 Organic Chemistry I Laboratory 1  
CHEM 212 Organic Chemistry II 3  
CHEM 213 Organic Chemistry II Laboratory 1  
CHEM 316 Spectrometric Identification of Organic Compounds 3  
CHEM 320 Biophysical Chemistry 3  
CHEM 432 Chemistry Seminar 2

**Directed Electives (10 -12 credits)**

One course chosen from:

BMS 306 Genetics 4  
BMS 307 Genomics 4  
BMS 311 Cell Biology 4  
BMS 316 Microbiology 4

and 6-8 additional credits chosen from the 300-level BMS courses listed above or from the following:

BMS 415 Advanced Exploration in Cell, Molecular, and Physiological Biology 3  
BMS 490 Topics in Biomolecular Sciences 3  
BMS 495 Capstone in Molecular Biology 4  
CHEM 456 Toxicology 3

**Research Requirements (2 credits)**

Two credits of research chosen from any of BMS 390, 491, CHEM 238, or 438 (although a two-semester sequence of BMS 390 and 491, or CHEM 238 and 438 is strongly encouraged). BMS 391 (Internship in biomolecular sciences, 1-3 credits) may be used as a substitution for part or all of the independent research requirement.

**Capstone Courses (7 credits)**

CHEM 458 Advanced Biochemistry 3  
CHEM 455 Biochemistry/Laboratory 1

and one of the following courses:

BMS 496 Capstone in Biosynthesis, Bioenergetics, and Metabolic Regulation 3  
OR  
CHEM 354 Biochemistry 3

**Related Requirements (12 credits)**

MATH 152 Calculus I 4  
PHYS 121 OR 125 General OR University Physics I 4  
PHYS 122 OR 126 General OR University Physics II 4

Students must also maintain a student portfolio (see below). These related requirement courses may also be counted to fulfill appropriate portions of the student's general education program. No minor is required for this major.

**Portfolio Requirement**

The portfolio requirement will be formally introduced to students during the BMS 190 and 290 introductory courses. Minimally, the student portfolio must include a current resume, a current Student Graduation Evaluation or transcript, a planned program of academic study, a narrative describing the student's goals for undergraduate education and graduate educational or career plans, abstracts of all completed independent study projects, and writing samples from CHEM 432. To fulfill the portfolio requirement, the student portfolio must be reviewed with one or more faculty members:

As a course requirement in BMS 190 and 290;

As a required component of independent student research projects; and

Prior to graduation, as evidenced by submission of a Portfolio Requirement Completed form to the chair of the Department of Biomolecular Sciences.

### 500-Level Course Options

Undergraduate students who use the form, Enrollment in 500 Level Courses by Undergraduates, and who have at least 90 credits and a cumulative GPA of 3.00 or higher may (with the approval of the advisor, instructor, appropriate department chair and dean, School of Graduate Studies, and with appropriate prerequisites) substitute either of the following 500-level BMS courses for BMS courses listed in the directed elective portion of the major program, and the following CHEM course in place of one of the 400-level CHEM courses listed in the directed elective portion of the major program:

BMS 562 Developmental Biology 3

BMS 570 Advanced Genetics 3

CHEM 551 Topics in Biochemistry 3

BS in Biochemistry (American Chemical Society accredited) (58 credits)

Biochemistry Core Requirements (37 credits)

BMS 102 Introduction to Biomolecular Science 3

BMS 103 Introduction to Biomolecular Science Laboratory 1

BMS 190 Introduction to Research I 0.5

BMS 201 Principles of Cell and Molecular Biology 4

BMS 290 Introduction to Research II 0.5

CHEM 161 General Chemistry I 3

CHEM 162 General Chemistry I Laboratory 1

CHEM 163 General Chemistry II 3

CHEM 164 General Chemistry II Laboratory 1

CHEM 301 Analytical Chemistry 4

CHEM 210 Organic Chemistry I 3

CHEM 211 Organic Chemistry I Laboratory 1

CHEM 212 Organic Chemistry II 3

CHEM 213 Organic Chemistry II Laboratory 1

CHEM 316 Spectrometric Identification of Organic Compounds 3

CHEM 320 Biophysical Chemistry 3

CHEM 432 Chemistry Seminar 2

Biochemistry Core plus an additional 8 credits in Chemistry

CHEM 322 Physical Chemistry of Quantum & Statistical Mechanics 3

CHEM 323 Physical Chemistry Lab 1

CHEM 402 Instrumental Methods in Analytical Chemistry 4

Directed Electives (4 credits)

One course chosen from:

BMS 306 Genetics 4

BMS 307 Genomics 4

BMS 311 Cell Biology 4

BMS 316 Microbiology 4

Research Requirements (2 credits)

CHEM 238\* Introduction to Research 1

CHEM 438\*\* Undergraduate Research 1

\*BMS 390 may be substituted

\*\*BMS 491 may be substituted

Capstone Courses (7 credits)

CHEM 354 Biochemistry 3

CHEM 458 Advanced Biochemistry 3

CHEM 455 Biochemistry/Laboratory 1

Related Requirements (16 credits)

MATH 152 Calculus I 4

MATH 221 Calculus II 4

PHYS 125 University Physics I 4

PHYS 126 University Physics II 4

Students must also maintain a student portfolio (see below). These related requirement courses may also be counted to fulfill appropriate portions of the student's general education program. No minor is required for this major.



#### Portfolio Requirement

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As a course requirement in BMS 190 and 290;

As a required component of independent student research projects; and

Prior to graduation, as evidenced by submission of a Portfolio Requirement Completed form to the chair of the Department of Biomolecular Sciences.

#### 500-Level Course Options

Undergraduate students who use the form, Enrollment in 500 Level Courses by Undergraduates, and who have at least 90 credits and a cumulative GPA of 3.00 or higher may (with the approval of the advisor, instructor, appropriate department chair and dean, School of Graduate Studies, and with appropriate prerequisites) substitute either of the following 500-level BMS courses for BMS courses listed in the directed elective portion of the major program, and the following CHEM course in place of one of the 400-level CHEM courses listed in the directed elective portion of the major program:

BMS 562 Developmental Biology 3

BMS 570 Advanced Genetics 3

CHEM 551 Topics in Biochemistry 3

### 4. Computer Electronics and Graphics Technology

#### 4.1. Undergraduate Course Revision: [CET 223 Basic Electrical Circuits](#)

##### 4.1.1. Revise course as follows:

CET 223 Basic Electrical Circuits 3

Prereq.: PHYS 111 and either MATH 115 or MATH 119 (either with C- or higher) or math placement exam.

Operation of DC circuits including voltage, current, resistance, power, electromagnetism, capacitance, inductance, and basic theorems. Laboratory experiments involve building circuits and using instruments to measure quantities. Three hours lecture and two hours laboratory, course meets five hours per week. No credit given to those with credit for CET 236.

#### 4.2. Undergraduate Course Revision: [CET 236 Circuit Analysis](#)

##### 4.2.1. Revise course as follows:

CET 236 Circuit Analysis 3

Prereq.: ENGR 150 or ROBO 110, and either MATH 135 or MATH 152, and either PHYS 122 or PHYS 126.

Basic concepts and laws, methods of analysis and circuit theorems in DC and AC circuits. Topics include voltage, current, power, resistance, capacitance, inductance, node analysis, mesh, analysis, Thevenin's theorem, Norton's theorem, phasors, transfer functions, steady state and transient analysis. Laboratory experiments involve building circuits, using instruments to measure quantities and observe phenomena. Three hours lecture and two hours laboratory, course meets five hours per week.

#### 4.3. Undergraduate Course Revision: [CET 346 Signals & Systems](#)

##### 4.3.1. Revise course as follows:

CET 346 Signals & Systems 3

Prereq.: CET 236, and either MATH 136 or MATH 221, and either PHYS 122 or PHYS 126. Signal representation, applications of Fourier series, Fourier transform, Laplace transform, and Z-transform in the analysis of circuits and systems. Three hours lecture and two hours laboratory, course meets five hours per week. Spring.

#### 4.4. Undergraduate Course Revision: [GRT 352 Graphic Typology](#)

##### 4.4.1. Revise course as follows:

GRT 352 Color Management & Analysis 3

Prereq.: GRT 112 and 242. Scientific study of color, perception and measurement principles, protocol for tolerances and targeting, and quality control practices of graphic color systems. Emphasis on the connection of color science to the graphic industry and state-of the art measurement equipment and software. Students will deploy color profiling, color management, color targeting and tolerance development to industry relevant applications. Two hour lecture and two hour laboratory, course meets four hours per week. Spring.

## 5. Counseling and Family Therapy

### 5.1. Graduate Program Revision: [Master of Science in Counselor Education with Specialization in School Counseling](#)

#### 5.1.1. Revise program as follows:

- (1) add "CNSL 505 Counseling and Human Development Across the Lifespan 3" into the list of core courses
- (2) change number of credits for the program from "48-51" to "51-54"

### 5.2. Graduate Program Revision: [Master of Science in Counselor Education with Specialization in Professional and Rehabilitation Counseling](#)

#### 5.2.1. Revise program as follows:

- (1) add "CNSL 505 Counseling and Human Development Across the Lifespan 3" into the list of core courses
- (2) delete "PSY 530 Psychopathology"

### 5.3. Graduate Course Addition: [MFT 510 Intensive In-home Evidence-Based Models in Family Therapy](#)

#### 5.3.1. Create course as follows:

MFT 510 Intensive In-home Evidence-Based Models in Family Therapy 3  
 Prereq.: MFT 541 or permission of instructor. Introduction to definitions and competencies connected with Evidence-Based Practice (EBP); overview of the history, theoretical foundations, and implementation of several evidence-based in-home family treatment models. Training in the theory and practice of treatment models; and hands-on training exercises with specific treatment tools. Cross-listed with CNSL 510. No credit given to students with credit for CNSL 510. Spring.

CNSL 510 Intensive In-home Evidence-Based Models in Family Therapy 3  
 Prereq.: MFT 541 or permission of instructor. Introduction to definitions and competencies connected with Evidence-Based Practice (EBP); overview of the history, theoretical foundations, and implementation of several evidence-based in-home family treatment models. Training in the theory and practice of treatment models; and hands-on training exercises with specific treatment tools. Cross-listed with MFT 510. No credit given to students with credit for MFT 510. Spring.

### 5.4.1. Graduate Program Addition: [Official Certificate Program in School-Based Marriage and Family Therapy](#)

#### 5.4.1. Create program as follows:

Official Certificate Program in School-Based Marriage and Family Therapy (12 credits)

The OCP in School-based Marriage and Family Therapy provides a course of study for post-graduate students who wish to complete requirements for a Provisional Educator Certificate in Marriage and Family Therapy through the State of CT Department of Education.

Degree Requirements

ED 515 - School Law 3

MFT 592 - School-based Family Counseling 3

MFT 593 - School-Based Marriage and Family Therapy Practicum and Seminar I 3

MFT 594 - School-Based Marriage and Family Therapy Practicum and Seminar II 3

Once courses are completed, students will need to apply for certification with the State Department of Education (SDE). They must provide proof of completing the Praxis I exam or evidence of waiver. They may also be required by the SDE to complete other related courses (e.g. Special Education for the Exceptional Learner and Human Development); these other related courses may be taken at other institutions or as part of their Master's program.

## 6. Economics

### 6.1. Undergraduate Course Addition: [ECON 308 Political Economy](#)

#### 6.1.1. Create course as follows:

ECON 308 Political Economy 3  
 Prereq.: ECON 200 and ECON 201. Critical examination of the history and evolution of U.S. capitalism. Traditional and alternative approaches, with an emphasis on class analysis and current controversies in economic theory and policy making. Fall.

**6.2. Undergraduate/Graduate Course Revision: [ECON 499 Independent Study in Economics](#)**

6.2.1. Revise course as follows: **change number of credits from "3 or 6" to "1 TO 3"**

**6.3. Undergraduate Program Revision: Major in Economics, B.A. (30 credits)****6.3.1. Revise program as follows:**

Core (15 credits)

|          |                            |   |
|----------|----------------------------|---|
| ECON 200 | Principles of Economics I  | 3 |
| ECON 201 | Principles of Economics II | 3 |
| ECON 300 | Macroeconomics             | 3 |
| ECON 305 | Microeconomics             | 3 |
| ECON 308 | Political Economy          | 3 |

And 15 credits of ECON electives.

In addition, students must take the following:

|          |                                    |   |
|----------|------------------------------------|---|
| MATH 125 | Applied Calculus                   | 3 |
| STAT 215 | Statistics for Behavioral Sciences | 3 |

**[For the rest of the agenda, click here](#)**