

***PLEASE NOTE: Members, when addressing Faculty Council, please stand and identify yourselves. Guests wishing to speak please fill out a guest card to be handed to the Chair prior to speaking.***

***PLEASE NOTE: Members planning to introduce amendments are requested to provide copies to the Faculty Council Office, 18A Administration, at least 24 hours before this meeting.***

**AGENDA**  
**Faculty Council Meeting**  
**Tuesday, April 2, 2019 – 4:00 p.m. – Plant Sciences – C101**

**I. FACULTY COUNCIL AGENDA – APRIL 2, 2019**

**A. ANNOUNCEMENTS**

1. Next Faculty Council Meeting – May 7, 2019 – Plant Sciences building – Room C101 – 4:00 p.m.
2. Faculty Council Harry Rosenberg Distinguished Service Award nominations due by: ***Friday, April 5, 2019***
3. Executive Committee Meeting Minutes located on the FC website – February 19 and 26, 2019  
[\(http://facultycouncil.colostate.edu/faculty-council-meeting-dates-agendas-minutes/\)](http://facultycouncil.colostate.edu/faculty-council-meeting-dates-agendas-minutes/)

**B. MINUTES TO BE APPROVED**

1. None

**C. UNFINISHED BUSINESS**

**D. CONSENT AGENDA**

1. UCC meeting minutes – February 22, 2019; March 1, 8, and 15, 2019 (pp. 3-15)

**E. ACTION ITEMS**

1. New Degree: A new Master of Professional Science Master's in Biomanufacturing and Biotechnology, to be established ***effective Fall 2019*** in the Department of Chemical and Biological Engineering, Walter Scott, Jr. College of Engineering – UCC (pp. 16-17)

**F.     REPORTS TO BE RECEIVED**

1.     President – Tony Frank
2.     Provost/Executive Vice President – Rick Miranda
3.     Faculty Council Chair – Tim Gallagher
4.     Board of Governors Faculty Representative – Margarita Lenk

**G.     DISCUSSION**

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**Secretary's Note:** Please detach at this line, print your name, and leave in attendance box at the Faculty Council Meeting. If you must be absent, you are encouraged to send a substitute representative of academic faculty status in order to provide proper representation at the meeting. Substitutes should turn in the attendance slip at the meeting and indicate on the slip whom they are representing. Members will find it helpful to have copies of the Faculty Council, University Curriculum Committee and Executive Committee minutes available for reference at the meeting.

## UNIVERSITY CURRICULUM COMMITTEE MINUTES

A regular meeting of the University Curriculum Committee was held on **February 22, 2019** at 2:00 p.m.  
The meeting adjourned at 3:45 p.m.

### Minutes

The minutes of February 15, 2019 were electronically approved on 2/18/19.

### Consent Agenda

The Consent Agenda was approved.

**Please note:** Approved curriculum changes are summarized below. Additional details may be viewed in the Curriculum Management (CIM) system by clicking on the hyperlinked course number or program title below. Once a course proposal is approved to the “Curriculum Liaison Specialist - hold for FC approval” queue in the CIM workflow, the course should be available to be added to the Class Schedule in ARIES/Banner (contingent on the effective term approved by UCC and Scheduling deadlines).

Miscellaneous Memo Requests – New Subject Code	
Request	Notes
<i>College of Veterinary Medicine and Biomedical Sciences</i>	
<a href="#">Subject Code: VMBS - Veterinary Medicine and Biomedical Sciences</a>	<p>We wish to request a new subject code (VMBS) to facilitate the creation of courses in the pending Major in Biomedical Sciences undergraduate degree with concentrations (Anatomy and Physiology, Environmental Health, Microbiology and Infectious Disease). This proposed degree program will allow students to enter the major prior to declaring a concentration and allow exploration of the different areas of study to identify the best fit with their interests. We are designing new courses that will be presented to all students in the Major and not in individual concentrations. We have one course in preparation that will serve as an introduction to the Biomedical Sciences Major for first year students. These college-wide courses will be administered through the dean’s office with memorandums of understanding with the departments that offer the different concentrations. Other benefits from creating this new subject code include:</p> <ul style="list-style-type: none"> <li>• Making courses in the college readily identifiable to interested students by using a distinct subject code</li> <li>• Increase the visibility of the program to prospective students by demonstrating curriculum specifically for the college (not an individual concentration)</li> <li>• Provide a mechanism for improved and clearer monitoring and advising of students</li> </ul>

Study Abroad Courses – 1 <sup>st</sup> Offering			
Course #	Course Title	Notes/Changes	Effective Term
<a href="#">IE 382E</a>	Study Abroad—Croatia: International Medical Shadowing	<p><b>1<sup>st</sup> offering; 1 credit.</b>  <b>Travel dates:</b> 1/5/20-1/18/20 (<i>14 days</i>)  Offered as Distance/Online, Mixed Face-to-face, and Face-to-face.</p>	Spring 2020

Exception Requests for Third Experimental Course Offerings			
Course #	Course Title	Notes	Effective Term
<a href="#">SOCR 380A2</a>	Seed Quality-Seed Production and Genetics	<p>Permanent course proposal in workflow: <a href="#">SOCR 311</a>  Previous offerings: Spring 2019 (8 students); Summer 2019 (registration hasn’t started yet)</p>	Fall 2019
<a href="#">SOCR 581A3</a>	Internet-Of-Things (LOT) Sensors Lab	<p>No permanent course proposal found in CIM.  Previous offerings: Fall 2017 (23 students); Fall 2018 (21 students)</p>	Fall 2019

New Courses			
Course #	Course Title	Notes	Effective Term
<a href="#">ANTH 420</a>	Digital Digging - Geophysics in Archaeology	Proposed as an elective in ANTH-BA, ANTH-ARCZ-BA, and ANTH-BIOZ-BA.	Fall 2019
<a href="#">SPMT 533</a>	Economics and Data Analytics in Sport	Offered as Distance/Online and Face-to-Face. 2 credits each; permanent partial semester; Graduate only.	Fall 2019
<a href="#">SPMT 545</a>	Sport Governance and Policy		
<a href="#">SPMT 547</a>	Contemporary Sport, Society and Globalization		
<a href="#">SPMT 560</a>	Sport Law		
<a href="#">SPMT 561</a>	Sport Facility and Event Management		
<a href="#">SPMT 562</a>	Sport and Ethics		
<a href="#">SPMT 568</a>	Sport Marketing		
<a href="#">SPMT 575</a>	Risk Management in Sport		
<a href="#">SPMT 641</a>	Sport Management Capstone		

Major Changes to Courses			
Course #	Course Title	GTP Category/Notes	Effective Term
<a href="#">STAT 201</a>	General Statistics	Addition of Distance/Online offering.	Fall 2019

New Degree		
Program Title	Notes	Effective Term
<a href="#">Professional Science Master's in Biomanufacturing and Biotechnology</a>	A Special Action memo will be sent from UCC to Faculty Council after notification from Council of Deans and Provost that they have approved the Comprehensive Program Proposal (CPP).	Fall 2019

New PSM Specializations		
Program Title	Notes	Effective Term
<a href="#">Professional Science Master's in Natural Science, Biological Data Analytics Specialization</a>	New PSM Specializations under 'umbrella' degrees require approval from Council of Deans.	Fall 2019
<a href="#">Professional Science Master's in Natural Science, Microscopic Imaging Technology Specialization</a>	New PSM Specializations under 'umbrella' degrees require approval from Council of Deans.	Fall 2019

Title Change – ‘New’ Minor			
Program Title	Notes	Effective Term	
<a href="#">Minor in Geospatial Information Science for Natural Resources</a>	<p>1. Program name change reflects the need to identify geospatial approaches rather than spatial information management. The minor will be more recognizable by both students and potential employers. The academic and industry standard name for this type of program is typically GIS (i.e., Geographic Information Systems or Geospatial Information Science).</p> <p>2. Moving the administration and management of the minor from the Department of Forest and Rangeland Stewardship to the Warner College of Natural Resources to enhance visibility and applicability of the minor to majors within all departments in the Warner College.</p> <p>3. Updating course requirements and electives to reflect current and updated course offerings on campus that are relevant to the minor.</p>	Fall 2019	
Title Change – Program Deactivation for the Above Minor			
Program Title	Notes	Last term students may be admitted to program	Last term students can complete the program
<a href="#">SIMQ: Minor in Spatial Information Management</a>		Summer 2019	Summer 2022

Major Changes to Existing Programs		
Program Title	Notes	Effective Term
<a href="#">ENGL-LITZ-M: Master of Arts in English, Plan B, Literature Specialization</a>	<ol style="list-style-type: none"> <li>1. Inclusion of E 610 as a requirement</li> <li>2. Increase credits for E 698 from 2 to 3 credits.</li> <li>3. Removing one 3-cr. elective course normally taken in the fall of the 2nd year, reducing the number of hours required for graduation from 35 to 34.</li> </ol>	Fall 2019
<a href="#">CPEG-BS: Major in Computer Engineering</a>	Removing MATH 345 from Sophomore year; updating footnotes.	Fall 2019
<a href="#">ECON-BA: Major in Economics</a>	<ol style="list-style-type: none"> <li>1. Edits to Program-Level Learning Objectives;</li> <li>2. Elimination of requirement that majors must take 9 credits of social science other than ECON and other than credits used to meet AUCC requirements (besides AUCC 3E);</li> <li>3. Replacement of 3 ECON elective credits numbered 301-599 with 3 ECON credits numbered 400-599 (excluding ECON 484 and ECON 487);</li> <li>4. Addition of footnote in Program of Study indicating students cannot use ECON 484 and ECON 487 to meet ECON general elective credits.</li> </ol>	Fall 2019
<a href="#">ELEG-BMEE-BS: Dual Degree Program: Biomedical Engineering, B.S. Combined with Electrical Engineering, B.S., Electrical Engineering Concentration</a>	Removing MATH 345 from Sophomore year.	Fall 2019

<a href="#"><u>ELEG-BMEL-BS: Dual Degree Program: Biomedical Engineering, B.S. Combined with Electrical Engineering, B.S., Lasers and Optical Engineering Concentration</u></a>	Removing MATH 345 from Sophomore year.	Fall 2019
<a href="#"><u>ELEG-ELEZ-BS: Major in Electrical Engineering, Electrical Engineering Concentration</u></a>	Removing MATH 345 from Sophomore year; edits to Science/Math/Engineering Electives	Fall 2019
<a href="#"><u>ELEG-LOEZ-BS: Major in Electrical Engineering, Lasers and Optical Engineering Concentration</u></a>	Removing MATH 345 from Sophomore year; edits to Science/Math/Engineering Electives	Fall 2019
<a href="#"><u>NAFS-DNMZ-BS: Major in Nutrition and Food Science, Dietetics and Nutrition Management Concentration, Gerontology Nutrition Option</u></a>	Replacing HES 444 with HES 434 as a required course in the senior year. Total credits hours remain the same.	Fall 2019
<a href="#"><u>ISWQ: Interdisciplinary Minor in Sustainable Water</u></a>	Addition of GES 120 as a required course; moving AREC 342 to an elective list.	Fall 2019

## CONSENT AGENDA

Experimental Courses – 1 <sup>st</sup> Offering			
Course #	Course Title	Notes	Effective Term
<a href="#"><u>CS 480A4</u></a>	Automata, Logic, and Computation	4 cr.; offered as Distance/Online and Face-to-face. No permanent course proposal found in CIM.	Fall 2019
<a href="#"><u>LB 181A1</u></a>	College of Liberal Arts Leadership Seminar	1 cr.; S/U only; written consent of instructor required. No permanent course proposal found in CIM.	Fall 2019
<a href="#"><u>MECH 481A3</u></a>	Materials Selection for Mechanical Design	No permanent course proposal found in CIM.	Fall 2019
<a href="#"><u>SPCM 381A1</u></a>	Interfaith and Inclusive Communication	No permanent course proposal found in CIM.	Spring 2020
<a href="#"><u>SPCM 480A2</u></a>	Communicating Urban Identities	No permanent course proposal found in CIM.	Fall 2019

Minutes approved by the University Curriculum Committee on 3/1/19.

Brad Goetz, Chair  
Shelly Ellerby and Susan Horan, Curriculum & Catalog

## UNIVERSITY CURRICULUM COMMITTEE MINUTES

A regular meeting of the University Curriculum Committee was held on **March 1, 2019** at 2:00 p.m.

The meeting adjourned at 3:55 p.m.

### Minutes

The minutes of February 22, 2019 were approved.

### Consent Agenda

The Consent Agenda was approved.

**Please note:** Approved curriculum changes are summarized below. Additional details may be viewed in the Curriculum Management (CIM) system by clicking on the hyperlinked course number or program title below. Once a course proposal is approved to the “Curriculum Liaison Specialist - hold for FC approval” queue in the CIM workflow, the course should be available to be added to the Class Schedule in ARIES/Banner (contingent on the effective term approved by UCC and Scheduling deadlines).

Discussion Items	
Topic	Notes
Study Abroad Policy	UCC reviewed the proposed new Study Abroad policy and made several clarifications and changes. UCC will likely vote on the new Study Abroad policy at the March 8, 2019 meeting. Documents uploaded to: FileShare > UCC Agenda > <b>03-01-19 Discussion Meeting</b> > Study Abroad
Curriculum review process	UCC discussed possible ways to increase efficiency with the curriculum review process. Discussed pros and cons of possibly splitting the graduate and undergraduate curriculum into separate committees. No action was taken, but the Curriculum Liaison Specialist will provide more information in the coming weeks on where and why the worst bottlenecks and pressures occur.
BA vs. BS degrees	UCC discussed BA vs. BS degrees and whether it is appropriate to formally distinguish between these degrees (given a lack of federal and/or state guidelines). No action was taken, but UCC will continue to discuss in the coming months. See documents uploaded to: FileShare > UCC Agenda > <b>09-28-18 Discussion Meeting</b> > BA vs. BS

Miscellaneous Memo Requests – New Subject Code	
Request	Notes
<a href="#">SYSE: Systems Engineering</a>	<p>Systems Engineering is a growing program with goals to become a department by July 2019. We seek our own subject code for many of our existing and new courses for the following reasons:</p> <ul style="list-style-type: none"> <li>• Differentiate Systems Engineering courses</li> <li>• Avoid monopolizing the general and interdisciplinary subject code of ENGR</li> <li>• Make courses in systems engineering readily identifiable to interested students</li> <li>• Increase the visibility of the courses to prospective students by demonstrating curriculum specifically for systems engineering</li> <li>• Provide students with transcripts that clearly demonstrate systems engineering-specific coursework</li> <li>• Facilitate advising by explicit identification of courses that meet program requirements</li> </ul> <p>Our goal is to be able to make appropriate curriculum changes for Fall 2019. Attached to the proposal we have included a list of our current curriculum courses and which we plan to change to SYSE. Many of our future courses will also be housed under SYSE.</p>

## CONSENT AGENDA

Minor Changes to Courses			
Course #	Course Title	Notes	Effective Term
<a href="#">ECE 527A/BIOM 527A</a>	Biosensing: Cells as Circuits	Edit to offering term: <del>Odd Every.</del>	Spring 2020
<a href="#">ECE 527B/BIOM 527B</a>	Biosensing: Signal and Noise in Biosensors	Edit to offering term: <del>Even Odd.</del>	Spring 2020
<a href="#">ECE 752</a>	Topics in Signal Processing	Edit to offering term: <del>As Needed Fall.</del>	Spring 2020
<a href="#">FSHN 455</a>	Food Systems: Impact on Health/Food Security	Edit to prerequisites: <del>ANEQ 447 or</del> FSHN 350 or FTEC 447.	Fall 2020
<a href="#">FTEC 570</a>	Food Product Development	Edit to prerequisite: <del>ANEQ 477 or</del> FTEC 447.	Fall 2020
<a href="#">FTEC 576</a>	Cereal Science	Edit to prerequisites: <del>ANEQ 477 or</del> FTEC 447.	Fall 2020
<a href="#">LIFE 103</a>	Biology of Organisms-Animals and Plants	Edit to prerequisites: <del>None. LIFE 102</del>	Spring 2020
<a href="#">SOWK 286B</a>	Practicum II	Edit to prerequisites: SOWK 286A <u>with a C grade or better.</u>	Spring 2020

Course Deactivations			
Course #	Course Title	Notes	Effective Term
<a href="#">NR 520</a>	Applied Optimization in Resource Management	Not referenced in any programs or courses.	Summer 2019
<a href="#">NR 526</a>	Techniques for Ecosystem Management	Not referenced in any programs or courses.	Summer 2019

Minor Changes to Existing Programs		
Program Title	Notes	Effective Term
<a href="#">CBEG-BMEC-BS: Dual Degree Program: Biomedical Engineering, B.S. combined with Chemical and Biological Engineering, B.S.</a>	Updates to Technical Electives lists.	Fall 2019

Minutes approved by the University Curriculum Committee on 3/8/19.

Brad Goetz, Chair  
Shelly Ellerby and Susan Horan, Curriculum & Catalog



## UNIVERSITY CURRICULUM COMMITTEE MINUTES

A regular meeting of the University Curriculum Committee was held on **March 8, 2019** at 2:00 p.m.

The meeting adjourned at 3:25 p.m.

### Minutes

The minutes of March 1, 2019 were approved.

### Consent Agenda

The Consent Agenda was approved.

**Please note:** Approved curriculum changes are summarized below. Additional details may be viewed in the Curriculum Management (CIM) system by clicking on the hyperlinked course number or program title below. Once a course proposal is approved to the “Curriculum Liaison Specialist - hold for FC approval” queue in the CIM workflow, the course should be available to be added to the Class Schedule in ARIES/Banner (contingent on the effective term approved by UCC and Scheduling deadlines).

New Graduate Certificate		
Program Title	Notes	Requested Effective Term
<a href="#">Graduate Certificate in Carbon Management</a>	Offered as Distance/Online and Main Campus Face-to-Face.	Fall 2019

New Specializations/Title Changes		
Program Title	Notes	Effective Term
<a href="#">PhD in Environmental Health, Occupational Ergonomics and Safety Specialization</a>	Replacing EVHL-ERZ-PHD.	Fall 2019
<a href="#">Master of Science in Environmental Health, Occupational Ergonomics and Safety Specialization, Plan A</a>	Replacing EVHL-ERGZ-MS.	Fall 2019

Program Deactivations for the Above Title Changes			
Program Title	Notes	Last term students may be admitted	Last term students can complete
<a href="#">EVHL-ERZ-PHD: PhD in Environmental Health, Ergonomics Specialization</a>	Title change.	Summer 2019	Summer 2022
<a href="#">EVHL-ERGZ-MS: Master of Science in Environmental Health, Ergonomics Specialization</a>	Title change.	Summer 2019	Summer 2022

Major Changes to Existing Programs		
Program Title	Notes	Effective Term
<a href="#">BUSA-MDZ-MBA: Master of Business Administration, Marketing Data Analytics Specialization</a>	Replacing Required Specialization course MKT 611 with MKT 610.	Fall 2019
<a href="#">HDFS-MAFZ-MS: Master of Science in Human Development and Family Studies, Marriage and Family Therapy Specialization, Plan A</a>	Replacing required course EDCO 693 with EDCO 670.	Fall 2019

<a href="#">APAM-ADAZ-BS: Major in Apparel and Merchandising, Apparel Design and Production Concentration</a>	Addition of DM 192 as a required course; rearranging various courses in the Program of Study to help lighten student load during the first year.	Fall 2019
<a href="#">APAM-MDSZ-BS: Major in Apparel and Merchandising, Merchandising Concentration</a>	Addition of DM 192 as a required course; rearranging various courses in the Program of Study to help lighten student load during the first year.	Fall 2019
<a href="#">APAM-PDVZ-BS : Major in Apparel and Merchandising, Product Development Concentration</a>	Addition of DM 192 and AM 143 as required courses; replacing MGT 305 with AM 373; rearranging various courses in the Program of Study to help lighten student load during the first year.	Fall 2019
<a href="#">BCHM-HMSZ-BS: Major in Biochemistry, Health and Medical Sciences Concentration</a>	Text added to both Programs of Study and Program Description fields:	Fall 2019
<a href="#">BCHM-PPHZ-BS: Major in Biochemistry, Pre-Pharmacy Concentration</a>	“If students opt to take both BC463 and BC465, an additional 1-credit course, Responsible Conduct in Biochemical Research (BC360), they can state on their resume that they graduated from an "American Society for Biochemistry and Molecular Biology (ASBMB) accredited program.” Further, students also have the option of taking a 1-hour ASBMB exam during the spring semester of their senior year. Student who pass the exam will additionally receive degree certification from ASBMB.”	
<a href="#">IARD-BS: Major in Interior Architecture and Design</a>	Clarification that students need to complete 9 credits which could be part of a certificate, minor, etc. without having all 9 credits from the same subject code; addition of IDEA 210 to the elective list in the freshman year; addition of Business Administration to the Focus Areas list.	Fall 2019
<a href="#">ECOQ: Minor in Economics</a>	Edits to catalog copy: 1. Addition of Program-Level Learning Objectives; 2. Addition of Program Description; 3. Addition of Online Degree Completion option (already approved but not indicated in catalog).	Fall 2019

New Courses – Fall 2020			
Course #	Course Title	Notes	Effective Term
<a href="#">PPA 540</a>	International Policy Toolkit	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 541</a>	Principles & Processes of International Mgmt	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 542</a>	Policy Accountability—Non-Democratic Regimes	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 543</a>	Evidence-Based Decision Making	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 544</a>	Ethics and Efficacy—Global Policymaking	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 555</a>	Environmental Law and Policy	Offered as Distance/Online and Face-to-face.	Fall 2020
<a href="#">PPA 558/ POLS 558</a>	Administrative Law	Offered as Distance/Online and Face-to-face. Previously offered as experimental course <a href="#">POLS 580A2</a> (Fall 2017: 15 students; Fall 2019: registration not open yet).	Fall 2020
<a href="#">PPA 670</a>	Capstone in Public Policy and Administration	Offered as Distance/Online and Face-to-face.	Fall 2020

<b>CONSENT AGENDA</b>
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<b>Experimental Courses – 2<sup>nd</sup> Offering (<i>for informational purposes only</i>)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Notes</b>	<b>Effective Term</b>
<a href="#"><u>SOCR 481A4</u></a>	Soil Survey Field Practicum	No permanent course proposal found in CIM. 1 <sup>st</sup> offering: Fall 2018: 8 students).	Fall 2019

Minutes approved by the University Curriculum Committee on 3/15/19.

Brad Goetz, Chair  
Shelly Ellerby and Susan Horan, Curriculum & Catalog

## UNIVERSITY CURRICULUM COMMITTEE MINUTES

A regular meeting of the University Curriculum Committee was held on **March 15, 2019** at 2:00 p.m.

The meeting adjourned at 2:45 p.m.

### Minutes

The minutes of March 8, 2019 were approved.

### Consent Agenda

The Consent Agenda was approved.

**Please note:** Approved curriculum changes are summarized below. Additional details may be viewed in the Curriculum Management (CIM) system by clicking on the hyperlinked course number or program title below. Once a course proposal is approved to the “Curriculum Liaison Specialist - hold for FC approval” queue in the CIM workflow, the course should be available to be added to the Class Schedule in ARIES/Banner (contingent on the effective term approved by UCC and Scheduling deadlines).

Miscellaneous Memo Requests – New Department	
Request	Notes
<a href="#">New Department: Systems Engineering</a>	The Systems Engineering Program is administratively housed within the College of Engineering and offers graduate degrees and certificates in Systems Engineering through both online and residential delivery. Since its creation in 2008, the Systems Engineering Program has granted 141 certificates, 102 Master’s degrees and 10 Ph.D. degrees. The number of students in the Systems Engineering program has grown as the program has developed and matured, with more than 200 students currently enrolled. For 2019, the CSU Ph.D. in Systems Engineering was ranked #1 for Engineering Ph.D. programs available online. We anticipate the strong growth to continue. Over the past 5 years, the University and College have made considerable investments in Systems Engineering, adding 4 tenure-track faculty and with plans to hire 2 additional tenure-track faculty to start this fall. Offer letters for these new faculty included that their tenure home would be transferred to the Department of Systems Engineering upon its creation. Memos on this transfer of tenure home have been agreed to and signed by the faculty, Ron Sega representing Systems Engineering, and the heads of the current departments in which the faculty currently reside. These memos are on file in the personnel folders for the faculty. Staff and non-tenure track faculty with assignments to support Systems Engineering will also transfer to the new Department. These moves will provide the Department with the personnel needed to meet its immediate needs. It is not anticipated that additional resources, beyond the normal sharing of tuition from online enrollments, will be needed going forward.

Study Abroad Courses – 1 <sup>st</sup> Offering			
Course #	Course Title	Notes/Changes	Effective Term
<a href="#">FW 182A</a>	Study Abroad--Mexico: Outdoor Skills	<b>1<sup>st</sup> offering; 1 credit.</b> <b>Travel dates:</b> 3/15/20-3/21/20 (7 days)	Spring 2020
<a href="#">NR 482A</a>	Study Abroad—Chile: Energy Transition	<b>1<sup>st</sup> offering; 3 credits.</b> <b>Travel dates:</b> 1/5/20-1/18/20 (14 days)	Spring 2020

Study Abroad Courses – 2 <sup>nd</sup> Offering			
Course #	Course Title	Notes/Changes	Effective Term
<a href="#">WS 382B</a>	Study Abroad--Ghana: Youth Development, Transnational Perspectives	<b>2<sup>nd</sup> offering; 3 credits.</b> <b>1<sup>st</sup> offering: Spring 2019 (17 students)</b> <b>Travel dates:</b> 12/30/19-1/18/20 (20 days)	Spring 2020

New Courses			
Course #	Course Title	Notes	Effective Term
<a href="#">CHEM 241</a>	Foundations of Organic Chemistry	4 credits; Chemistry majors only.	Fall 2019
<a href="#">CHEM 242</a>	Foundations of Organic Chemistry Laboratory	1 credit; Chemistry majors only.	Fall 2019
<a href="#">CHEM 445</a>	Synthetic Organic Chemistry	Approved for <a href="#">AUCC Cat 4B</a> .	Fall 2019
<a href="#">PPA 500</a>	Research Methods for Public Policy and Admin	Offered as Distance/Online and Face-to-face; Graduate only.	Fall 2020
<a href="#">PPA 501</a>	Program Evaluation and Quantitative Methods		
<a href="#">PPA 530</a>	Civic Engagement		
<a href="#">PPA 587</a>	Internship		

New Specializations		
Program Title	Notes	Effective Term
<a href="#">Master of Arts in English, Plan A, English Education Specialization</a>		Fall 2019
<a href="#">Master of Arts in English, Plan B, English Education Specialization</a>		Fall 2019

New Concentration/Title Change		
Program Title	Notes	Effective Term
<a href="#">Major in Biochemistry, ASBMB Concentration</a>	Deactivating the Biochemistry General Concentration and activating a very slightly modified version called the 'ASBMB Concentration'. ASBMB stands for American Society for Biochemistry and Molecular Biology. The only difference between the two concentrations is the addition of BC 360, a 1-credit course required for accreditation. The name change reflects the importance of this accreditation. Completing the new concentration will allow students to designate on their resume that they have completed an ASBMB program. Students can opt to take an ASBMB exam in March of their senior year and potentially receive ASBMB certification.	Fall 2019

Program Deactivation for the Above Concentration			
Program Title	Notes	Last term students may be admitted to program	Last term students can complete the program
<a href="#">BCHM-GBCZ-BS: Major in Biochemistry, General Biochemistry Concentration</a>	Concentration title change.	Summer 2019	Spring 2023

<b>CONSENT AGENDA</b>
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Minor Changes to Courses			
Course #	Course Title	Notes/Changes	Effective Term
<a href="#">ECE 658/CS 658</a>	Internet Engineering	Edit to offering year: <del>Even</del> <u>Every</u> Edit to offering term: <del>Fall</del> <u>Spring</u>	Spring 2020
<a href="#">ECE 670B/CS 670B</a>	Topics in Architecture/Systems: Performance Evaluation and Modeling	Edit to offering term: <u>As Needed</u> <del>Fall, Spring</del>	Spring 2020
<a href="#">ECE 670C/CS 670C</a>	Topics in Architecture/Systems: Distributed Systems	Edit to offering term: <u>As Needed</u> <del>Fall, Spring</del>	Spring 2020
<a href="#">ECE 670D/CS 670D</a>	Topics in Architecture/Systems: Architecture of Advanced Systems	Edit to offering term: <u>As Needed</u> <del>Fall, Spring</del>	Spring 2020
<a href="#">CHEM 231</a>	Foundations of Analytical Chemistry	Edit to prerequisites: ( <u>CHEM 111 and CHEM 112</u> ) or ( <u>CHEM 120 and CHEM 121</u> ). Removing 'Must have concurrent registration in CHEM 232.'	Fall 2019
<a href="#">CHEM 232</a>	Foundations of Analytical Chemistry Lab	Edit to prerequisites: <u>CHEM 114 or CHEM 231, may be taken concurrently</u> <del>CHEM 111 and CHEM 112</del>	Fall 2019
<a href="#">CHEM 263</a>	Foundations of Inorganic Chemistry	Edit to prerequisites: ( <u>CHEM <del>CHEM</del> 111 and CHEM 112</u> ) or ( <u>CHEM 120 and CHEM 121</u> ) <del>112</del>	Fall 2019
<a href="#">CHEM 264</a>	Foundations of Inorganic Chemistry Laboratory	Edit to prerequisites: ( <u>CHEM 111 and CHEM 112</u> ) or ( <u>CHEM 120 and CHEM 121</u> )	Fall 2019
<a href="#">SOWK 286A</a>	Practicum I	Edit to prerequisites: SOWK 150 <u>with a C or better</u> , may be taken concurrently.	Spring 2020
<a href="#">SOWK 330</a>	Dismantling Privilege and Oppression	Edit to prerequisites: SOWK 286A <u>with a C or better</u> , may be taken concurrently	Spring 2020
<a href="#">SOWK 333</a>	Human Behavior in the Social Environment	Edit to prerequisites: HDFS 101 may be taken concurrently; SOWK 286A, <u>with a C or better</u> , may be taken concurrently; SOWK 330, <u>with a C or better</u> , may be taken concurrently;	Spring 2020
<a href="#">SOWK 340</a>	Generalist Practice-Individuals and Families	Edit to prerequisites: SOWK 286B <u>with a C or better</u> , may be taken concurrently.	Spring 2020
<a href="#">SOWK 341</a>	Generalist Practice-Small Groups	Edit to prerequisites: SOWK 340 <u>with a C or better</u> , may be taken concurrently.	Spring 2020
<a href="#">SOWK 343</a>	Generalist Practice-Organizations	Edit to prerequisites: SOWK 340 <u>with a C or better</u> , may be taken concurrently.	Spring 2020
<a href="#">SOWK 410</a>	Social Welfare – Policy, Issues, and Advocacy	Edit to prerequisites: POLS 101 or POLS 103; SOWK 400 <u>with a C or better</u> , may be taken concurrently.	Spring 2020

Course Deactivations			
Course #	Course Title	Notes/Changes	Effective Term
<a href="#">NR 521</a>	Natural Resource Administration	Not referenced in any programs or courses.	Summer 2019
<a href="#">NRRT 100</a>	Foundations of Recreation and Tourism	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 360</a>	Group Decision Making in Natural Resources	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 361</a>	Natural Resources and the Media	Not referenced in any programs or courses.	Fall 2019

<a href="#">NRRT 363</a>	Outdoor Recreation Programming	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 370</a>	Managing Tourism in the E-Commerce Era	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 375</a>	Budgeting and Revenue Resources	Listed in an Elective List ( <i>will be administratively removed from</i> ) PSNS-ZZ-MPSN: Professional Science Master's in Natural Sciences – Zoo, Aquarium, and Animal Shelter Management Specialization.	Fall 2019
<a href="#">NRRT 432</a>	Foundations of Forest Recreation	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 433</a>	Meeting Needs of Recreation Users	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 434</a>	Recreation Special Uses and Needs	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 435</a>	Trails, Facility Design, Operation, Maintenance	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 436</a>	Recreation, Visual, Cultural Resource Management	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 437</a>	Off-Road Vehicle, River, and Winter Recreation	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 438</a>	Management of Wilderness	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 457</a>	Off-Highway Vehicle Recreation in America	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 458</a>	Planning for Off-Highway Vehicle Recreation	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 459</a>	Managing Off-Highway Vehicle Recreation	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 504</a>	Water-Based Recreation	Not referenced in any programs or courses.	Fall 2019
<a href="#">NRRT 509</a>	Science Education in Informal Settings	Listed in an Elective List ( <i>will be administratively removed from</i> ) PSNS-ZZ-MPSN: Professional Science Master's in Natural Sciences – Zoo, Aquarium, and Animal Shelter Management Specialization.	Fall 2019

Minutes electronically approved by the University Curriculum Committee on 3/18/19.

Brad Goetz, Chair  
Shelly Ellerby and Susan Horan, Curriculum & Catalog

March 15, 2019

TO: Timothy Gallagher, Chair  
Executive Committee and Faculty Council

FROM: Brad Goetz, Chair  
University Curriculum Committee

SUBJECT: New Degree: Professional Science Master's in Biomanufacturing and  
Biotechnology

The University Curriculum Committee moves Faculty Council adopt the following:

**A new Master of Professional Science Master's in Biomanufacturing and Biotechnology, to be established effective Fall 2019** in the Department of Chemical and Biological Engineering, Walter Scott, Jr. College of Engineering.

According to the request submitted:

Description:

The Professional Science Master's in Biomanufacturing and Biotechnology is ideal for students who want to prepare for careers in a variety of industries that use bioprocesses, biomanufacturing, and biotechnology. The program is also designed to provide opportunities for professionals working in these industries to get the training they may need to advance in their careers. The program includes a balanced combination of bioscience courses, engineering courses, and business courses, appropriate for students with either a science or engineering background. The program culminates with an internship experience at a partnering organization, company, government entity, or non-profit, where the student puts into practice their bioscience, engineering, and business training.

Program Catalog Copy:

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Rationale:

The justification for this request is to (1) address an unmet student demand, and (2) to leverage existing expertise to contribute to the growing industries that apply bioscience and biotechnology, particularly in Colorado.

The Department of Chemical and Biological Engineering frequently has inquiries from early career professionals working in biotechnology companies. These include, for example, those working in biofuels and biopharmaceutical companies. These individuals are often seeking admission to our Master's degree programs in Chemical Engineering, so that they can achieve some career advancement goals. However, because they do not have undergraduate degrees in Chemical Engineering, (often they have degrees in chemistry, microbiology, or some other science background) the prerequisite burden requires that they take at least two years of engineering coursework at the undergraduate level to prepare for our graduate-level courses. Many of these applicants would benefit much more from a degree that combines science, with accessible engineering courses, and business courses.

The PSM degree in Biomanufacturing and Biotechnology will enhance CSU's engagement with the growing bioscience industry in Colorado. We have engineering students who perform internships at local bioscience companies, or who come back to school from these companies. Combining business training and an internship with advanced science and engineering in this new degree program is an opportunity for CSU to have an impact on workforce development for this growing and important sector of the Colorado economy, and the economy of our nation.

The request was reviewed and approved by the Committee on Scholarship, Research and Graduate Education on 2/7/19 and by the University Curriculum Committee on 2/22/19.

Attachment