

UNIVERSITY CURRICULUM COMMITTEE AGENDA  
2:00 p.m., Friday, February 24, 2017  
106 Administration, Provost Conference Room

**Note:** If you are unable to attend or will be sending a substitute, please notify [Carole Makela](mailto:Carole.Makela@colostate.edu) (1-5141) or [Curriculum Catalog@colostate.edu](mailto:Curriculum_Catalog@colostate.edu) (1-2429) prior to the meeting.

**MINUTES** – Minutes of February 17, 2017.

**ANNOUNCEMENTS**

1. When 'As Needed' is selected for the 'Offering Term' on the course form in CIM, no term is displayed in the General Catalog at all. Example:

**CHEM 651E**

**CHEM 651E Special Topics in Chemistry: Materials Chemistry Credits: Var[1-4] (0-0-0)**

**Course Description:** Discussion of current topics in materials chemistry.

**Prerequisite:** None.

**Restriction:** Must be a: Graduate, Professional.

**Registration Information:** Written consent of instructor.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**CONSENT AGENDA**

See listing after New Business.

**CIM Considerations**

CIM Forms  
CIM Processes  
CIM Help Bubble

**PENDING CoSRGE**

**New Program Proposals:**

- [Graduate Certificate in Nutrition for Health Promotion](#)
- [Master of Music, Music Education, Composition Emphasis](#)

**OTHER BUSINESS**

1. **Discussion Item: UCC Committee Responsibilities and Operating Procedures**

[UCC Committee Responsibilities – Faculty Manual Section C:](#)

k. University Curriculum Committee (last revised June 22, 2006)

The University Curriculum Committee shall consist of one (1) faculty representative from each college and the Libraries, one (1) undergraduate student, one (1) graduate student, and the Provost or his or her designee (ex officio). The duties of this standing committee shall be:

1. To receive or initiate recommendations pertaining to each and every course and program offered for academic credit by any unit of the University.
2. To evaluate all proposals for new undergraduate courses and programs as well as changes in existing courses and programs for correlation with other departments before consideration and approval by the Faculty Council.
3. To evaluate all proposals for new graduate courses and programs as well as changes in existing courses and programs for correlation with other departments. Review of graduate programs is conducted after the Committee on Scholarship, Research, and Graduate Education has recommended approval prior to their submission to the Faculty Council for approval.

4. To develop necessary administrative procedures for informing interested colleges concerning courses under consideration.
5. To evaluate proposals for the establishment of new departments, and the change of academic name, change in college affiliation, dissolution, division, or merger of existing departments.
6. To recommend policies to the Faculty Council related to the operations of the Division of Continuing Education which impact curricula.  
[UCC Operating Procedures](#)

<b>OLD BUSINESS</b>
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<i>New Courses</i>	<i>Effective Term</i>	<i>Notations</i>
<b>COLLEGE OF LIBERAL ARTS</b>		
<p><a href="#">ART 320</a>     <b>ART 320 Global Encounters in Art 3(3-0-0) As Needed</b></p> <p><b>Prerequisite:</b> None.  <b>Registration Information:</b> Sophomore standing.  <b>Description:</b> Comparative topics in global art.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> The course fulfills a curricular need within the Department of Art and Art History for comparative study of art across geographic regions, while meeting a need for a CSU course that can be offered for credit on Semester at Sea voyages. It also suits the global scope of the art collection at the Gregory Allicar Museum of Art, which will be a major resource for student research and course activities.</p>	Fall 2017	<i>General Elective</i>
<b>COLLEGE OF NATURAL SCIENCES</b>		
<p><a href="#">BZ 565/</a> <a href="#">MIP 565</a>     <b>BZ 565/MIP 565 Next Generation Sequencing Platform/Libraries 1(0-2-0) F</b></p> <p><b>Prerequisite:</b> CM 505.  <b>Registration Information:</b> This is a partial semester course. Credit not allowed for both BZ 565/MIP565 and CM 581A2.  <b>Description:</b> Theoretical and experimental aspects of next generation sequencing experiments with a focus on the Illumina platform. Students will create and sequence metagenomic and 16S rDNA libraries from soil samples and unknown bacterial cultures.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> Over the last decade, next generation sequencing (NGS) has become a widely used approach to understand and characterize biological processes. However, due to the rapid rise of this technology most faculty, even within the life sciences, have little hands-on experience. This makes it challenging for them to provide adequate training for graduate students. This course addresses this gap by providing training in both the experimental design and practical aspects of creating a library for NGS. The course will be of value to both life scientists and biomedical engineers engaged in research involving NGS approaches. Furthermore the course will also be open to Statistics, Mathematics and Computer Science graduate students who routinely analyze and model data generated through NGS.</p>	Fall 2017	<i>General Elective</i>
<b>COLLEGE OF NATURAL SCIENCES</b>		
<p><a href="#">DSCI 100</a>     <b>DSCI 100 First Year Seminar in Data Science 1(0-0-1) F</b></p> <p><b>Prerequisite:</b> None.  <b>Registration Information:</b> Freshman or sophomore only.  <b>Description:</b> Introduction to problems and techniques in data science.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> A new BS degree program in Data Science enables Colorado State University to respond to a burgeoning societal need for expertise in this rapidly emerging discipline. This course provides an introduction to problems, techniques and challenges in data science, (SLO #1) introduces students to faculty members associated with the program and helps to build a sense of a cohort among students in this major to support future professional interactions (SLO #3).</p>	Spring 2018	<i>Required</i>
		<i>Major in Data Science 4 concentrations</i>

<a href="#">DSCI 335</a>	<b>DSCI 335 Quantitative Reasoning and Ethics 3(3-0-0) S</b> <b>Prerequisite:</b> JTC 300; STAT 342. <b>Registration Information:</b> Written consent of instructor. <b>Description:</b> Sources of data collection errors and uncertainties, type of studies, interaction versus confounding, fair use of data, confidentiality and disclosure. <b>Grade Mode:</b> Traditional	Spring 2018	<b>Required</b>  <i>Major in Data Science 4 concentrations</i>
<b>Reason for Request:</b>	This course will provide core content to the Data Science program and will be a required course for all concentrations.		

**COLLEGE OF VETERINARY MEDICINE AND BIOMEDICAL SCIENCES**

<a href="#">VS 665B</a>	<b>VS 665B Advanced Topics in Veterinary Cardiology: Heart Failure and Cardiac Biomarkers 2(2-0-0) F</b> <b>Offering Year:</b> Every Third Year <b>Prerequisite:</b> BMS 420. <b>Restriction:</b> Must be a: Graduate, Professional. <b>Registration Information:</b> DVM degree or equivalent professional medicine degree required, or by instructor permission <b>Description:</b> This course will start with a review of the pathophysiology of heart failure. We will then discuss the diagnostic and therapeutic approach to heart failure. Clinical trial design will be reviewed prior to summarizing recent clinical trial results in man and dog. <b>Grade Mode:</b> Traditional	Fall 2017	<b>General Elective</b>  <i>(Course description has been updated)</i>
<b>Reason for Request:</b>	Current graduate courses in the department provide a cursory overview of cardiovascular medicine targeted toward general medicine/surgery residents and graduate students. Residents and graduate students with a focus in cardiology require more in-depth and targeted syllabi on unique aspects of comparative cardiovascular medicine. This course series will provide a high level analysis and advanced training in basic and clinically relevant aspects of cardiovascular medicine, an area which is lacking in the current graduate curriculum.		

<i>Major Changes to Courses</i>	<i>Effective Term</i>	<i>Notations</i>
<b>COLLEGE OF LIBERAL ARTS</b>		

<a href="#">ART 425</a>	<b>ART 425 Integrated Visual Studies 4(4-0-0) S</b> <b>Prerequisite:</b> None. <b>Registration Information:</b> Written consent of advisor. Senior standing. 21 credits of upper-division coursework in the Major in Integrated Visual Studies. <b>Description:</b> Interdisciplinary and guided study linking systems of knowledge. Students are afforded the space to draw on their breadth of information and artistic mediums to create a capstone project that demonstrates an ability to communicate effectively across verbal, visual, and written forms. Develop skills as makers and thinkers, fostering critical awareness of how society reflects and produces visual meaning. <b>Grade Mode:</b> Traditional. [Proposed new <a href="#">AUCC 4C: Capstone Experience</a> for the: <a href="#">Bachelor of Arts, Integrated Visual Studies Concentration</a> (proposal pending in CIM)]	Fall 2017	<b>Required in:</b> <a href="#">BA Integrated Visual Studies</a> (new proposal)  (UCC approved as a new course 2/10/17, but the request for AUCC 4C designation was not approved at that time)
<b>Reason for Request:</b>	Currently, the BA Capstone is a "shared" capstone with the BFA degree. The proposed course will provide a distinct capstone experience for the newly designed BA in Integrated Visual Studies. Through the completion of this class, students will learn how to articulate the interdisciplinary link between studio arts and their secondary field of study. Students will also make connections between visual art, contemporary culture, and community. Completion of course projects will necessitate that students advance their skills in research, writing, and public speaking.		

<a href="#">ART 492A</a>	<b>ART 492A Seminar: Art History 3(3-0-0) <u>As Needed F,S,SS</u></b>	Fall 2017	<b><i>Proposed new:</i></b> <a href="#">AUCC 4A &amp; 4B</a>
<b>Reason for Request:</b>	<p><b>Prerequisite:</b> ART 212.  <b>Registration Information:</b> None.  <b>Description:</b> <a href="#">Topical studies in Art History.</a>  <b>Grade Mode:</b> <a href="#">Traditional</a> <del>Instructor Option</del>                  [proposed new <a href="#">AUCC 4A: Using Competencies &amp; AUCC 4B: Building Upon Foundations and Perspectives</a> for the following:  <a href="#">Bachelor of Arts, Art Education Concentration</a>  <a href="#">Bachelor of Arts, Art History Concentration</a>  <a href="#">Bachelor of Arts, Studio Concentration</a>  <a href="#">Bachelor of Arts, Integrated Visual Studies Concentration</a> (proposal pending in CIM)]</p> <p>The seminar in Art History is not currently listed as fulfilling AUCC 4A, 4B criteria although the way the course is taught already fulfills the stipulations. Adding this designation to the course will help attract more students to the special topics courses we offer as seminars.</p>		
<a href="#">ART 496H</a>	<b>ART 496H Group Study: Art History <del>31-4</del>(30-0-0) <u>As Needed F,S,SS</u></b>	Fall 2017	<b><i>Proposed new:</i></b> <a href="#">AUCC 4A &amp; 4B</a>
<b>Reason for Request:</b>	<p><b>Prerequisite:</b> ART 212.  <b>Registration Information:</b> Maximum of <del>9-8</del> credits allowed in course.  <b>Description:</b> <a href="#">Topical studies in Art History.</a>  <b>Grade Mode:</b> <a href="#">Traditional</a> <del>Instructor Option</del>                  [proposed new <a href="#">AUCC 4A: Using Competencies &amp; AUCC 4B: Building Upon Foundations and Perspectives</a> for the following:  <a href="#">Bachelor of Arts, Art Education Concentration</a>  <a href="#">Bachelor of Arts, Art History Concentration</a>  <a href="#">Bachelor of Arts, Studio Concentration</a>  <a href="#">Bachelor of Arts, Integrated Visual Studies Concentration</a> (proposal pending in CIM)]</p> <p>The Group Study in Art History is not currently listed as fulfilling AUCC 4A, 4B criteria although the way the course is taught already fulfills the stipulations. Adding this designation to the course will help attract more students to the special topics courses we offer as group studies.</p>		
<a href="#">LSPA 500</a>	<b>LSPA 500 Language Analysis/Stylistics-Spanish 3(3-0-0) F</b>	Fall 2017	<b><i>Elective in:</i></b> <a href="#">Grad Cert in Spanish</a> <a href="#">Linguistics and Literary Studies</a>
<b>Reason for Request:</b>	<p><b>Prerequisite:</b> LSPA 400.  <b>Registration Information:</b> <a href="#">May be taken 3 times for credit.</a>  <b>Description:</b> Analysis of Spanish structure through the examination of style in literary and non-literary texts.  <b>Grade Mode:</b> Student Option</p> <p>This course will rotate topics (Syntax, Phonetics/Phonology, Morphology, Other).</p>		



***New Concentration***

College of Liberal Arts  
 Department of Art and Art History  
 Bachelor of Arts, Integrated Visual Studies Concentration

Effective Fall 2017  
[Link to CIM](#)

**Reason for Request:** We are redesigning the BA-Studio major to orient it towards an integrated humanities and visual culture approach to differentiate it more clearly from the BFA-Studio major. This revised BA-Integrated Visual Studies major will serve a broader population of students interested in the visual arts, especially those desiring a double major in art and a cognate discipline. This change is motivated by feedback we received from NASAD as we are preparing for departmental accreditation in Fall 2017.

<b>FRESHMAN</b>			
		<b>AUCC</b>	<b>CREDITS</b>
<u>ART 105</u>	Issues and Practices in Art		1
<u>ART 110</u>	Art History I		3
<u>ART 111</u>	Art History II		3
<u>ART 135</u>	Introduction to Drawing		3
<u>ART 136</u>	Introduction to Figure Drawing		3
<u>ART 160</u>	Two-Dimensional Visual Fundamentals		3
<u>ART 170</u>	Three-Dimensional Visual Fundamentals		3
<u>CO 150</u>	College Composition (GT-CO2)	1A	3
<u>Arts and Humanities</u>		3B	6
<u>Mathematics</u>		1B	3
<b>Total Credits</b>			<b>31</b>
<b>SOPHOMORE</b>			
<u>ART 212</u>	Art History III		3
<u>SPCM 200</u>	Public Speaking		3
Studio Introduction courses (see list below)			6
Upper-Division Art History course (see list below)			4A,4B 3
<u>Biological and Physical Sciences</u>			3A 7
<u>Global and Cultural Awareness</u>			3E 3
<u>Historical Perspectives</u>			3D 3
<u>Social and Behavioral Sciences</u>			3C 3
<b>Total Credits</b>			<b>31</b>
<b>JUNIOR</b>			
<u>Choose one of the following courses:</u>		-	<b>3</b>
<u>ART 492A</u>	Seminar: Art History	4A,4B	-
<u>ART 496H</u>	Group Study: Art History	4A,4B	-
Studio Introduction course not previously taken above (see list below)			3
Upper-Division Art History course (see list below)			4A,4B 3
Upper-Division Studio courses (see list below)			8
Second Field courses <sup>1</sup>			6
Upper-Division Second Field courses <sup>1</sup>			6
<u>Advanced Writing</u>			2 3
<b>Total Credits</b>			<b>32</b>
<b>SENIOR</b>			
<u>ART 425</u>	Integrated Visual Studies (course pending UCC approval)	4C	4
ART 3XX or ART 4XX			4

ART XXX	3
Second Field courses <sup>1</sup>	3
Upper-Division Second Field courses <sup>1</sup>	6
Upper-Division Electives	3
Electives	3
<b>Total Credits</b>	<b>26</b>
<b>Program Total Credits:</b>	<b>120</b>

## Studio Introduction Courses

Code	Title	Credits
<a href="#"><u>ART 230</u></a>	Photo Image Making I	3
<a href="#"><u>ART 235</u></a>	Intermediate Drawing I	3
<a href="#"><u>ART 240</u></a>	Pottery I	3
<a href="#"><u>ART 245</u></a>	Metalsmithing and Jewelry I	3
<a href="#"><u>ART 250</u></a>	Fibers I	3
<a href="#"><u>ART 255</u></a>	Introduction to Graphic Design	3
<a href="#"><u>ART 256</u></a>	Introduction to Electronic Art	3
<a href="#"><u>ART 260</u></a>	Painting I	3
<a href="#"><u>ART 265</u></a>	Printmaking I-Intaglio and Relief	3
<a href="#"><u>ART 270</u></a>	Sculpture I	3

## Upper-Division Art History Courses

Code	Title	AUCC	Credits
<a href="#"><u>ART 310</u></a>	History of American Art to 1945	4A,4B	3
<a href="#"><u>ART 311</u></a>	Art of Africa	4A,4B	3
<a href="#"><u>ART 312</u></a>	History of Pre-Columbian Art	4A,4B	3
<a href="#"><u>ART 314</u></a>	Women in Art History	4A,4B	3
<a href="#"><u>ART 315</u></a>	United States Art 1945-1980	4A,4B	3
<a href="#"><u>ART 316</u></a>	Art of the Pacific	4A,4B	3
<a href="#"><u>ART 317</u></a>	Native North American Art	4A,4B	3
<a href="#"><u>ART 410</u></a>	Greek Art	4A,4B	3
<a href="#"><u>ART 411</u></a>	History of Medieval Art	4A,4B	3
<a href="#"><u>ART 412</u></a>	History of Renaissance Art	4A,4B	3
<a href="#"><u>ART 414</u></a>	History of Baroque and Rococo Art	4A,4B	3
<a href="#"><u>ART 415</u></a>	History of 19th Century European Art	4A,4B	3
<a href="#"><u>ART 416</u></a>	History of European Art, 1900 to 1945	4A,4B	3
<a href="#"><u>ART 417</u></a>	Roman Art	4A,4B	3

Code	Title	AUCC	Credits
<a href="#"><u>ART 418</u></a>	Contemporary Artists and Art Critics	4A,4B	3
<a href="#"><u>ART 492A</u></a>	Seminar: Art History	4A,4B	3
<a href="#"><u>ART 496H</u></a>	Group Study: Art History	4A,4B	1-4

## Upper-Division Studio Courses

Code	Title	Credits
<a href="#"><u>ART 330</u></a>	Photo Image Making II	4
<a href="#"><u>ART 331</u></a>	Photo Image Making III	4
<a href="#"><u>ART 335</u></a>	Intermediate Drawing II	4
<a href="#"><u>ART 336</u></a>	Intermediate Drawing III	4
<a href="#"><u>ART 340</u></a>	Pottery II	4
<a href="#"><u>ART 341</u></a>	Pottery III	4
<a href="#"><u>ART 345</u></a>	Metalsmithing and Jewelry II	4
<a href="#"><u>ART 346</u></a>	Metalsmithing and Jewelry III	4
<a href="#"><u>ART 350</u></a>	Fibers II	4
<a href="#"><u>ART 351</u></a>	Fibers III	4
<a href="#"><u>ART 355</u></a>	Typography and Design Systems	4
<a href="#"><u>ART 356</u></a>	Illustration	4
<a href="#"><u>ART 357</u></a>	Interactive Media	4
<a href="#"><u>ART 358</u></a>	Experimental Video	4
<a href="#"><u>ART 360</u></a>	Painting Methods and Materials	4
<a href="#"><u>ART 361</u></a>	Figure Painting	4
<a href="#"><u>ART 365</u></a>	Printmaking II-Lithography	4
<a href="#"><u>ART 366</u></a>	Printmaking III-Studio Workshop	4
<a href="#"><u>ART 370</u></a>	Sculpture II	4
<a href="#"><u>ART 371</u></a>	Sculpture III	4
<a href="#"><u>ART 384</u></a>	Supervised College Teaching	1-4
<a href="#"><u>ART 421</u></a>	Art and Environment ( <i>UCC approved 2/3/17</i> )	3
<a href="#"><u>ART 430</u></a>	Advanced Photo Image Making I	4
<a href="#"><u>ART 431</u></a>	Advanced Photo Image Making II	4
<a href="#"><u>ART 435</u></a>	Advanced Drawing I	4
<a href="#"><u>ART 436</u></a>	Advanced Drawing II	4
<a href="#"><u>ART 440</u></a>	Pottery IV	4
<a href="#"><u>ART 441</u></a>	Pottery V	4
<a href="#"><u>ART 445</u></a>	Metalsmithing and Jewelry IV	4
<a href="#"><u>ART 446</u></a>	Metalsmithing and Jewelry V	4

<b>Code</b>	<b>Title</b>	<b>Credits</b>
<a href="#"><u>ART 450</u></a>	Fibers IV	4
<a href="#"><u>ART 451</u></a>	Fibers V	4
<a href="#"><u>ART 455</u></a>	Advanced Typography and Design Systems	4
<a href="#"><u>ART 456</u></a>	Advanced Illustration	4
<a href="#"><u>ART 457</u></a>	Advanced Interactive Media	4
<a href="#"><u>ART 458</u></a>	Advanced Experimental Video	4
<a href="#"><u>ART 460</u></a>	Advanced Painting I	4
<a href="#"><u>ART 461</u></a>	Advanced Painting II	4
<a href="#"><u>ART 465</u></a>	Printmaking IV-Studio Workshop	4
<a href="#"><u>ART 466</u></a>	Printmaking V-Studio Workshop	4
<a href="#"><u>ART 470</u></a>	Sculpture IV	4
<a href="#"><u>ART 471</u></a>	Sculpture V	4
<a href="#"><u>ART 495A</u></a>	Independent Study: Painting	1-4
<a href="#"><u>ART 495B</u></a>	Independent Study: Printmaking	1-4
<a href="#"><u>ART 495C</u></a>	Independent Study: Sculpture	1-4
<a href="#"><u>ART 495D</u></a>	Independent Study: Fibers	1-4
<a href="#"><u>ART 495E</u></a>	Independent Study: Metalsmithing and Jewelry	1-4
<a href="#"><u>ART 495F</u></a>	Independent Study: Drawing	1-4
<a href="#"><u>ART 495G</u></a>	Independent Study: Graphic Design	1-4
<a href="#"><u>ART 495H</u></a>	Independent Study: Art History	1-4
<a href="#"><u>ART 495I</u></a>	Independent Study: Art Education	1-4
<a href="#"><u>ART 495J</u></a>	Independent Study: Pottery	1-4
<a href="#"><u>ART 495K</u></a>	Independent Study: Photo Image Making	1-4
<a href="#"><u>ART 496A</u></a>	Group Study: Painting	1-4
<a href="#"><u>ART 496B</u></a>	Group Study: Printmaking	1-4
<a href="#"><u>ART 496C</u></a>	Group Study: Sculpture	1-4
<a href="#"><u>ART 496D</u></a>	Group Study: Fibers	1-4
<a href="#"><u>ART 496E</u></a>	Group Study: Metalsmithing and Jewelry	1-4
<a href="#"><u>ART 496F</u></a>	Group Study: Drawing	1-4
<a href="#"><u>ART 496G</u></a>	Group Study: Graphic Design	1-4
<a href="#"><u>ART 496H</u></a>	Group Study: Art History	1-4
<a href="#"><u>ART 496I</u></a>	Group Study: Art Education	1-4
<a href="#"><u>ART 496J</u></a>	Group Study: Pottery	1-4
<a href="#"><u>ART 496K</u></a>	Group Study: Photo Image Making	1-4

<sup>1</sup> Choose in consultation with advisor.





**NEW BUSINESS**

<i>New Courses</i>	<i>Effective Term</i>	<i>Notations</i>
<b>COLLEGE OF ENGINEERING</b>		
<p><a href="#">MECH 778</a> <b>MECH 778 Advanced Topics in Computational Modeling 3(3-0-0) S</b></p> <p><b>Prerequisite:</b> MECH 568.  <b>Registration Information:</b> None.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Description:</b> Advanced topics in computational fluid dynamics, finite element methods, and linear/nonlinear engineering optimization techniques.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> There is an increasing reliance on computational support within STEM.</p>	Spring 2018	<i>General Elective</i>
<b>COLLEGE OF HEALTH AND HUMAN SCIENCES</b>		
<p><a href="#">EDHE 655</a> <b>EDHE 655 Foundations of College Opportunity Programs 3(2-0-1) F</b></p> <p><b>Prerequisite:</b> None.  <b>Registration Information:</b> Credit not allowed for EDHE 655 and EDHE 680A1. Offered as an online course only.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Description:</b> Exploration of college opportunity programs for expanding access to American higher education. Understanding the implications of financial aid, opportunity support programs, achievement gaps, policies, and advocacy.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> This course was provides content not currently available related to understanding opportunities and programs to enhance access to higher education for underrepresented groups. The course has been offered as an experimental course in May 2015 and fall 2015. The online format will be available to campus students.</p>	Fall 2017	<i>Elective</i>  <i>MS Student Affairs in Higher Education</i>
<p><a href="#">EDHE 656</a> <b>EDHE 656 Postsecondary Opportunity Programs Practice 3(2-0-1) F</b></p> <p><b>Prerequisite:</b> None.  <b>Registration Information:</b>  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Description:</b> Examines effective college opportunity program practices in context of institutional and student demographics, which support students' transition, persistence, achievement, engagement, and completion. Reviews retention literature and practices focused on low income, first generation, and other underrepresented students.  <b>Grade Mode:</b> Traditional</p> <p><b>Reason for Request:</b> Course, in partnership with Council for Opportunity in Education, provides current and future student affairs professionals knowledge of college opportunity--success program practice not included in existing courses. Online format only; available to RI students. Class discussion threads are evaluated and graded each week or as assigned on class schedule. Course faculty and TA grade class discussions on quality of responses, insight, and application to practice.</p>	Fall 2017	<i>Elective</i>  <i>MS Student Affairs in Higher Education</i>

**COLLEGE OF LIBERAL ARTS**

<a href="#">ART 200</a>	<b>ART 200 Media Arts in Context 3(3-0-0) As Needed</b>	Fall 2017	<i>General Elective</i>
	<p><b>Prerequisite:</b> None.  <b>Registration Information:</b> Offered as an online course only.  <b>Description:</b> History and contemporary practice of media-based arts. Addresses Printmaking, Graphic Design, Photography, Film, Video, Computer-Generated Imagery, Digital Fabrication, and other cognate disciplines.  <b>Grade Mode:</b> Traditional                  [proposed new <a href="#">AUCC 3B: Arts &amp; Humanities</a>]</p>		
<b>Reason for Request:</b>	ART200 expands the current Department of Art & Art History curriculum to cover subject matter not currently addressed. The subject matter of this course touches on practices related to multiple disciplines within the Art & Art History Department, College of Liberal Arts and beyond. It will serve the students of this department as well as students across the university looking for AUCC 200-level credit. Lastly, it will be offered as an online course only to address student demand for online courses.		
<a href="#">GR 333</a>	<b>GR 333 Glaciers and Climate Change 3(3-0-0) F</b>	Fall 2018	<i>Elective</i>
	<p><b>Prerequisite:</b> GR 100 or GR 210 or GEOL 120 or GEOL 122 or GEOL 124 or GEOL 150.  <b>Registration Information:</b> Credit allowed for only one of the following: GEOL 381A2, GR 333 and GR381A2.  <b>Description:</b> Glacier mass balance, dynamics, past fluctuations, and glaciers' relation to climate change.  <b>Grade Mode:</b> Traditional</p>		<i>Geography</i>
<b>Reason for Request:</b>	The geography professors at CSU are developing a Geography Major based on student requests and student enthusiasm for the current Geography minor. This course will help to round out the geography class offerings.		



<i>Major Changes to Courses</i>		<i>Effective Term</i>	<i>Notations</i>
<b>COLLEGE OF HEALTH AND HUMAN SCIENCES</b>			
<a href="#">CON 101</a>	<b>CON 101 Introduction to Construction Management 3(3-0-0) F, S</b>	Spring 2018	<i>Required</i>
	<p><b>Prerequisite:</b> None.  <b>Registration Information:</b> <a href="#">Pre-Construction Management Majors and Construction Management Majors and Minors Only.</a>  <b>Description:</b> <del>Introduction to Identify and understand relationships among participants in the construction industry; including methods, practices, trends, careers, and constituencies involved in the design process and construction process. its history.</del>  <b>Grade Mode:</b> Traditional</p>		<i>Construction Management Major &amp; Minor</i>
<b>Reason for Request:</b>	This course is being modified to better align the description, objectives, and content with current construction management practices. In addition, the program's accrediting body, the American Council for Construction Education (ACCE), has adopted a Student Learning Outcomes (SLO) based accreditation standard. Course objective and content changes are being implemented to better/more directly align course materials with ACCE SLO requirements.		
<a href="#">CON 151</a>	<b>CON 151 Construction Materials and Methods 3(3-0-0) F, S</b>	Spring 2018	<i>Required</i>
	<p><b>Prerequisite:</b> None.  <b>Registration Information:</b> <a href="#">Agriculture Education, Interior Design, Pre-Interior Design Majors and Construction Management Majors and Minors Only.</a>  <b>Description:</b> Materials and methods utilized in the design and construction of <a href="#">the built environment.</a> <del>buildings.</del>  <b>Grade Mode:</b> Traditional</p>		<i>Construction Management Major &amp; Minor</i>

<b>Reason for Request:</b>	<p>This course is being modified to better align the description, objectives, and content with current construction management practices. The program's accrediting body, the American Council for Construction Education (ACCE) has adopted a Student Learning Outcomes (SLO) based accreditation standard. Course objective and content changes are being implemented to better/more directly align course materials with ACCE SLO requirements.</p>	<p><u><a href="#">Interior Design Major</a></u></p>
<u>CON 251</u>	<p><b>CON 251 Materials Testing and Processing 2(1-2-0) F, S</b> Spring 2018 <b>Required</b></p> <p><b>Prerequisite:</b> CON 151 <u>with a minimum grade of C.</u>  <b>Registration Information:</b> <u>Construction Management Majors only.</u> Must register for lecture and laboratory.  <b>Description:</b> Testing of construction materials for standards and quality. Conduct <u>material tests, common quality tests</u> and document <u>and interpret the</u> results  <b>Grade Mode:</b> Traditional</p>	<p><i>Construction Management Major</i></p>
<b>Reason for Request:</b>	<p>This course is being modified to better align the description, objectives, and content with current construction management practices. The program's accrediting body, the American Council for Construction Education (ACCE), has adopted a Student Learning Outcomes (SLO) based accreditation standard. Course objective and content changes are being implemented to better/more directly align course materials with ACCE SLO requirements.</p>	
<u>CON 261</u>	<p><b>CON 261 Construction Surveying 3(2-3-0) F, S, SS</b> Spring 2018 <b>Required</b></p> <p><b>Prerequisite:</b> (CON 131 <u>with a minimum grade of C</u> or INTD 166) and (MATH 125 or MATH 160)  <b>Registration Information:</b> Must register for lecture and laboratory. <u>Construction Management, Environmental Horticulture, Landscape Architecture, Pre-Landscape Horticulture Majors and Landscape Horticulture Majors and Minors Only.</u>  <b>Description:</b> <u>Surveying fundamentals related to construction:</u> <del>Surveying fundamentals to field of construction,</del> building layout, measurement procedures, vertical controls, line and grade, surveying instrument operation.  <b>Grade Mode:</b> Traditional</p>	<p><i>Construction Management Major</i></p>
<b>Reason for Request:</b>	<p>This course is being modified to better align the description, objectives, and content with current construction management practices. The program's accrediting body, the American Council for Construction Education (ACCE), has adopted a Student Learning Outcomes (SLO) based accreditation standard. Course objective and content changes are being implemented to better/more directly align course materials with ACCE SLO requirements.</p>	
<u>HES 434</u>	<p><b>HES 434 Physical Activity Throughout the Lifespan 3(3-0-0) F, S, SS</b> Spring 2018 <b>Required in:</b></p> <p><b>Prerequisite:</b> BMS 300 <u>or HDFS 201.</u>  <b>Registration Information:</b> <u>Junior standing.</u> Credit not allowed for both HES 434 and HES 444. <u>Sections may be offered: Online.</u>  <b>Description:</b> Impact of physical activity on biology and physiology of human development and aging processes.  <b>Grade Mode:</b> Traditional</p>	<p><i>Health &amp; Ex.Sci: Health Promotion, Sports Medicine</i></p>
<b>Reason for Request:</b>	<p>We are adding an online version of this course. This course is currently a required course for undergraduates in Health and Exercise Science with a concentration in Health Promotion and is a guided elective for the sports medicine concentration. This course is also a requirement in the Nutrition and Food Science major, Nutrition and Fitness concentration Additionally, this course is now a requirement for the Gerontology Interdisciplinary minor. Adding the online format will serve primarily the students in the Gerontology Interdisciplinary minor.</p>	<p><u><a href="#">Gerontology Minor</a></u>  <u><a href="#">Nutrition &amp; Food Science Major</a></u></p>

**WARNER COLLEGE OF NATURAL RESOURCES**

<a href="#">NRRT 601</a>	<b>NRRT 601 Tourism Quantitative Analysis I 2(20-0-02) S</b>	Fall 2017	<b>Required</b>
<b>Reason for Request:</b>	<p><b>Permanent Partial Semester:</b> Yes  <b>Prerequisite:</b> STAT 312.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Registration Information:</b> This is a partial semester course. <del>Offered as an online course only.</del>  <del>Graduate standing</del>–Sections may be offered <u>as Mixed Face-to-Face or Online.</u>  <b>Description:</b> Statistical techniques used by researchers to inform and support tourism decision-making. <u>Emphasis is placed on understanding data manipulation techniques and what statistics are appropriate for addressing applied decision-making problems.</u>  <b>Grade Mode:</b> Traditional</p> <p>This course is being updated from being only offered online, to being offered as both an online course and in a mixed face-to-face format.</p>		<a href="#"><u>Master of Tourism Management</u></a>
<a href="#">NRRT 602</a>	<b>NRRT 602 Tourism Quantitative Analysis II 2(20-0-02) S</b>	Fall 2017	<b>Required</b>
<b>Reason for Request:</b>	<p><b>Permanent Partial Semester:</b> Yes  <b>Prerequisite:</b> None.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Registration Information:</b> This is a partial semester course. <del>Offered as an online course only.</del>  <del>Graduate standing</del>–Sections may be offered <u>as Mixed Face-to-Face or Online.</u>  <b>Description:</b> <u>Quantitative analysis methods to specific tourism problems. Students explore visitor intercept techniques and identify other local, regional, national and international institutional data sources, including “Big Data” analytic engines. Using these sources, students estimate destination demand, supply and economic impact as well as perform competitive analysis in a variety of settings.</u> <del>Explores the domestic and international sources of data and their applications for decision-making in tourism.</del>  <b>Grade Mode:</b> Traditional</p> <p>This course is being updated from being only offered online, to being offered as both an online course and in a mixed face-to-face format.</p>		<a href="#"><u>Master of Tourism Management</u></a>
<a href="#">NRRT 610</a>	<b>NRRT 610 Natural Resource Management and Tourism 2(20-0-02) F</b>	Fall 2017	<b>Required</b>
<b>Reason for Request:</b>	<p><b>Permanent Partial Semester:</b> Yes  <b>Prerequisite:</b> None.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Registration Information:</b> This is a partial semester course. <del>Offered as an online course only.</del>  <del>Graduate standing</del>–Sections may be offered <u>as Mixed Face-to-Face or Online.</u>  <b>Description:</b> <u>Explores nature-based Connection between the management of tourism resources and the planning and management of experiences and impacts. changing conditions of the natural world. Review the tourism system as it is applied in the natural resource setting, define and describe outdoor recreation motivations, describe the covenants and institutions that govern international development globally, and apply the measurement of supply, demand, and economic impact in the natural-based tourism realm. Apply these techniques in comprehensive planning and compliance activities.</u>  <b>Grade Mode:</b> Traditional</p> <p>This course is being updated from being only offered online, to being offered as both an online course and in a mixed face-to-face format.</p>		<a href="#"><u>Master of Tourism Management</u></a>
<a href="#">NRRT 662</a>	<b>NRRT 662 Global Tourism Policy 2(20-0-02) F</b>	Fall 2017	<b>Required</b>
<b>Reason for Request:</b>	<p><b>Permanent Partial Semester:</b> Yes  <b>Prerequisite:</b> None.  <b>Restriction:</b> Must be a: Graduate, Professional.  <b>Registration Information:</b> This is a partial semester course. <del>Offered as an online course only.</del>  <del>Graduate standing</del>–Sections may be offered <u>as Mixed Face-to-Face or Online.</u>  <b>Description:</b> Major <u>international global</u> policies, trends, and challenges facing <u>tourism.</u> <del>The travel and tourism industry.</del> <u>Provides an understanding of policies, programs, and regulations and how international tourism is affected.</u>  <b>Grade Mode:</b> Traditional</p>		<a href="#"><u>Master of Tourism Management</u></a>

**Reason for Request:** This course is being updated from being only offered online, to being offered as both an online course and in a mixed face-to-face format.



***New Degree Proposals – Initial Review Only***

**College of Natural Science  
 Master of Science in Materials Science and Engineering, Plan A**

**Effective Fall 2017**  
[Link to CIM](#)

**Reason for Request:** See CIM proposal.

Core Courses		
<u>MSE 501</u>	Materials Technology Transfer	1
<u>MSE 502A</u>	Materials Science & Engineering Methods: Materials Structure and Scattering	1
<u>MSE 502B</u>	Materials Science & Engineering Methods: Computational Materials Methods	1
Select at least one course from the following:		1
<u>MSE 502C</u>	Materials Science & Engineering Methods: Materials Microscopy	
<u>MSE 502D</u>	Materials Science & Engineering Methods: Materials Spectroscopy	
<u>MSE 502E</u>	Materials Science & Engineering Methods: Bulk Properties and Performance	
<u>MSE 502F</u>	Materials Science & Engineering Methods: Experimental Methods for Materials Research	
<u>MSE 503</u>	Mechanical Behaviors of Materials	3
<u>MSE 504</u>	Thermodynamics of Materials	3
Select one course from the following:		3
<u>CHEM 511</u>	Solid State Chemistry	
<u>CHEM 517</u>	Chemistry of Electronic Materials	
<u>ECE 574</u>	Optical Properties in Solids	
<u>PH 531</u>	Introductory Solid State Physics	
<u>MSE 793</u>	Professional Development Seminar <sup>1</sup>	<span style="border: 1px solid red; padding: 2px;">2</span>
Specialty Course(s)		3
Select at least 3 credits from the following: <sup>2</sup>		
<u>BIOM 570/MECH 570</u>	Bioengineering	
<u>BIOM 592</u>	Seminar	
<u>CBE 501</u>	Chemical Engineering Thermodynamics	
<u>CBE 514</u>	Polymer Science and Engineering	
<u>CHEM 515</u>	Polymer Chemistry	
<u>CHEM 550A</u>	Materials Chemistry: Hard Materials	
<u>CHEM 550B</u>	Materials Chemistry: Soft Materials	
<u>CHEM 550C</u>	Materials Chemistry: Nanomaterials	
<u>CHEM 567</u>	Crystallographic Computation	

<a href="#"><u>CHEM 569</u></a>	Chemical Crystallography
<a href="#"><u>CHEM 577</u></a>	Surface Chemistry
<a href="#"><u>CIVE 560</u></a>	Advanced Mechanics of Materials
<a href="#"><u>CIVE 565</u></a>	Finite Element Method
<a href="#"><u>CIVE 662</u></a>	Foundations of Solid Mechanics
<a href="#"><u>CIVE 664</u></a>	Mechanics of Fatigue and Fracture
<a href="#"><u>ECE 505</u></a>	Nanostructures: Fundamentals and Applications
<a href="#"><u>ECE 569/MECH 569</u></a>	Micro-Electro-Mechanical Devices
ECE 5*** Special Topics in Nanophotonics <sup>3</sup>	
<a href="#"><u>ECE 673</u></a>	Thin Film Growth
<a href="#"><u>GRAD 544</u></a>	Ethical Conduct of Research
<a href="#"><u>MATH 535</u></a>	Foundations of Applied Mathematics
<a href="#"><u>MATH 550/ENGR 550</u></a>	Numerical Methods in Science and Engineering
<a href="#"><u>MATH 560</u></a>	Linear Algebra
<a href="#"><u>MATH 561</u></a>	Numerical Analysis I
<a href="#"><u>MATH 750</u></a>	Numerical Methods and Models I
<a href="#"><u>MECH 525/BIOM 525</u></a>	Cell and Tissue Engineering
<a href="#"><u>MECH 530</u></a>	Advanced Composite Materials
<a href="#"><u>MECH 531/BIOM 531</u></a>	Materials Engineering
<a href="#"><u>MECH 532/BIOM 532</u></a>	Materials Issues in Mechanical Design
<a href="#"><u>MECH 573</u></a>	Structure and Function of Biomaterials
<a href="#"><u>MECH 628</u></a>	Applied Fracture Mechanics
<a href="#"><u>MSE 505</u></a>	Kinetics of Materials
<a href="#"><u>PH 631</u></a>	Solid State Physics
<a href="#"><u>PH 731</u></a>	Condensed Matter Theory
<b>Research, Teaching and Thesis</b>	<b>12</b>
The M.S. Plan A requires a minimum of 30 credit hours, some of which may be fulfilled with the following	
<a href="#"><u>MSE 651</u></a>	Special Topics in Materials Science
<a href="#"><u>MSE 695</u></a>	Independent Study
<a href="#"><u>MSE 699</u></a>	Thesis
<a href="#"><u>MSE 784</u></a>	Supervised College Teaching

**Program Total Credits:****30**

- <sup>1</sup> Students must register for 1 credit of [MSE 793](#) each of their first 2 semesters in the program.
- <sup>2</sup> [CHEM 511](#), [CHEM 517](#), [PH 531](#), and [ECE 574](#) can be used as specialty courses, if not used to fulfill core requirements.
- <sup>3</sup> See department for list of special topics in nanophotonics.



**College of Natural Sciences**  
**Master of Science in Materials Science and Engineering, Plan B**

**Effective Fall 2017**  
[Link to CIM](#)

**Reason for Request:** *See CIM proposal.*

<b>Core Courses</b>		
<a href="#"><u>MSE 501</u></a>	Materials Technology Transfer	1
<a href="#"><u>MSE 502A</u></a>	Materials Science & Engineering Methods: Materials Structure and Scattering	1
<a href="#"><u>MSE 502B</u></a>	Materials Science & Engineering Methods: Computational Materials Methods	1
Select at least one course from the following:		1
<a href="#"><u>MSE 502C</u></a>	Materials Science & Engineering Methods: Materials Microscopy	
<a href="#"><u>MSE 502D</u></a>	Materials Science & Engineering Methods: Materials Spectroscopy	
<a href="#"><u>MSE 502E</u></a>	Materials Science & Engineering Methods: Bulk Properties and Performance	
<a href="#"><u>MSE 502F</u></a>	Materials Science & Engineering Methods: Experimental Methods for Materials Research	
<a href="#"><u>MSE 503</u></a>	Mechanical Behaviors of Materials	3
<a href="#"><u>MSE 504</u></a>	Thermodynamics of Materials	3
Select one course from the following:		3
<a href="#"><u>CHEM 511</u></a>	Solid State Chemistry	
<a href="#"><u>CHEM 517</u></a>	Chemistry of Electronic Materials	
<a href="#"><u>ECE 574</u></a>	Optical Properties in Solids	
<a href="#"><u>PH 531</u></a>	Introductory Solid State Physics	
<a href="#"><u>MSE 793</u></a>	Professional Development Seminar <sup>1</sup>	<b>2</b>
<b>Specialty Courses</b>		<b>6</b>
Select at least 6 credits from the following: <sup>2</sup>		
<a href="#"><u>BIOM 570/MECH 570</u></a>	Bioengineering	
<a href="#"><u>BIOM 592</u></a>	Seminar	
<a href="#"><u>CBE 501</u></a>	Chemical Engineering Thermodynamics	
<a href="#"><u>CBE 514</u></a>	Polymer Science and Engineering	
<a href="#"><u>CHEM 515</u></a>	Polymer Chemistry	
<a href="#"><u>CHEM 550A</u></a>	Materials Chemistry: Hard Materials	
<a href="#"><u>CHEM 550B</u></a>	Materials Chemistry: Soft Materials	
<a href="#"><u>CHEM 550C</u></a>	Materials Chemistry: Nanomaterials	
<a href="#"><u>CHEM 567</u></a>	Crystallographic Computation	
<a href="#"><u>CHEM 569</u></a>	Chemical Crystallography	
<a href="#"><u>CHEM 577</u></a>	Surface Chemistry	
<a href="#"><u>CIVE 560</u></a>	Advanced Mechanics of Materials	
<a href="#"><u>CIVE 565</u></a>	Finite Element Method	
<a href="#"><u>CIVE 662</u></a>	Foundations of Solid Mechanics	
<a href="#"><u>CIVE 664</u></a>	Mechanics of Fatigue and Fracture	

<u><a href="#">ECE 505</a></u>	Nanostructures: Fundamentals and Applications
<u><a href="#">ECE 569/MECH 569</a></u>	Micro-Electro-Mechanical Devices
ECE 5*** Special Topics in Nanophysics <sup>3</sup>	
<u><a href="#">ECE 673</a></u>	Thin Film Growth
<u><a href="#">GRAD 544</a></u>	Ethical Conduct of Research
<u><a href="#">MATH 535</a></u>	Foundations of Applied Mathematics
<u><a href="#">MATH 550/ENGR 550</a></u>	Numerical Methods in Science and Engineering
<u><a href="#">MATH 560</a></u>	Linear Algebra
<u><a href="#">MATH 561</a></u>	Numerical Analysis I
<u><a href="#">MATH 750</a></u>	Numerical Methods and Models I
<u><a href="#">MECH 525/BIOM 525</a></u>	Cell and Tissue Engineering
<u><a href="#">MECH 530</a></u>	Advanced Composite Materials
<u><a href="#">MECH 531/BIOM 531</a></u>	Materials Engineering
<u><a href="#">MECH 532/BIOM 532</a></u>	Materials Issues in Mechanical Design
<u><a href="#">MECH 573</a></u>	Structure and Function of Biomaterials
<u><a href="#">MECH 628</a></u>	Applied Fracture Mechanics
<u><a href="#">MSE 505</a></u>	Kinetics of Materials
<u><a href="#">PH 631</a></u>	Solid State Physics
<u><a href="#">PH 731</a></u>	Condensed Matter Theory

**Research, Teaching and Thesis****9**

The M.S. Plan B requires a minimum of 30 credit hours, some of which may be fulfilled with the following

<u><a href="#">MSE 651</a></u>	Special Topics in Materials Science
<u><a href="#">MSE 695</a></u>	Independent Study
<u><a href="#">MSE 699</a></u>	Thesis
<u><a href="#">MSE 784</a></u>	Supervised College Teaching

**Program Total Credits:****30**

<sup>1</sup> Students must register for 1 credit of [MSE 793](#) each of their first 2 semesters in the program.

<sup>3</sup> [CHEM 511](#), [CHEM 517](#), [PH 531](#), and [ECE 574](#) can be used as specialty courses, if not used to fulfill core requirements.

<sup>3</sup> See department for list of special topics in nanophotonics.





**College of Natural Sciences  
 Ph.D. in Materials Science and Engineering**

**Effective Fall 2017**  
[Link to CIM](#)

**Reason for Request:** *See CIM proposal.*

<b>Core Courses</b>		
<a href="#"><u>MSE 501</u></a>	Materials Technology Transfer	1
<a href="#"><u>MSE 502A</u></a>	Materials Science & Engineering Methods: Materials Structure and Scattering	1
<a href="#"><u>MSE 502B</u></a>	Materials Science & Engineering Methods: Computational Materials Methods	1
Select at least one course from the following:		1
<a href="#"><u>MSE 502C</u></a>	Materials Science & Engineering Methods: Materials Microscopy	
<a href="#"><u>MSE 502D</u></a>	Materials Science & Engineering Methods: Materials Spectroscopy	
<a href="#"><u>MSE 502E</u></a>	Materials Science & Engineering Methods: Bulk Properties and Performance	
<a href="#"><u>MSE 502F</u></a>	Materials Science & Engineering Methods: Experimental Methods for Materials Research	
<a href="#"><u>MSE 503</u></a>	Mechanical Behaviors of Materials	3
<a href="#"><u>MSE 504</u></a>	Thermodynamics of Materials	3
Select one course from the following:		3
<a href="#"><u>CHEM 511</u></a>	Solid State Chemistry	
<a href="#"><u>CHEM 517</u></a>	Chemistry of Electronic Materials	
<a href="#"><u>ECE 574</u></a>	Optical Properties in Solids (Select 1)	
<a href="#"><u>PH 531</u></a>	Introductory Solid State Physics	
<a href="#"><u>MSE 793</u></a>	Professional Development Seminar <sup>1</sup>	<b>4</b>
<b>Specialty Courses</b>		<b>6</b>
Select at least 6 credits: <sup>2</sup>		
<a href="#"><u>BIOM 570/MECH 570</u></a>	Bioengineering	
<a href="#"><u>BIOM 592</u></a>	Seminar	
<a href="#"><u>CBE 501</u></a>	Chemical Engineering Thermodynamics	
<a href="#"><u>CBE 514</u></a>	Polymer Science and Engineering	
<a href="#"><u>CHEM 515</u></a>	Polymer Chemistry	
<a href="#"><u>CHEM 550A</u></a>	Materials Chemistry: Hard Materials	
<a href="#"><u>CHEM 550B</u></a>	Materials Chemistry: Soft Materials	
<a href="#"><u>CHEM 550C</u></a>	Materials Chemistry: Nanomaterials	
<a href="#"><u>CHEM 567</u></a>	Crystallographic Computation	
<a href="#"><u>CHEM 569</u></a>	Chemical Crystallography	
<a href="#"><u>CHEM 577</u></a>	Surface Chemistry	
<a href="#"><u>CIVE 560</u></a>	Advanced Mechanics of Materials	
<a href="#"><u>CIVE 565</u></a>	Finite Element Method	
<a href="#"><u>CIVE 662</u></a>	Foundations of Solid Mechanics	
<a href="#"><u>CIVE 664</u></a>	Mechanics of Fatigue and Fracture	

<u><a href="#">ECE 505</a></u>	Nanostructures: Fundamentals and Applications
<u><a href="#">ECE 569/MECH 569</a></u>	Micro-Electro-Mechanical Devices
ECE 5*** Select Topics in Nanophotonics <sup>3</sup>	
<u><a href="#">ECE 673</a></u>	Thin Film Growth
<u><a href="#">GRAD 544</a></u>	Ethical Conduct of Research
<u><a href="#">MATH 535</a></u>	Foundations of Applied Mathematics
<u><a href="#">MATH 550/ENGR 550</a></u>	Numerical Methods in Science and Engineering
<u><a href="#">MATH 560</a></u>	Linear Algebra
<u><a href="#">MATH 561</a></u>	Numerical Analysis I
<u><a href="#">MATH 750</a></u>	Numerical Methods and Models I
<u><a href="#">MECH 525/BIOM 525</a></u>	Cell and Tissue Engineering
<u><a href="#">MECH 530</a></u>	Advanced Composite Materials
<u><a href="#">MECH 531/BIOM 531</a></u>	Materials Engineering
<u><a href="#">MECH 532/BIOM 532</a></u>	Materials Issues in Mechanical Design
<u><a href="#">MECH 573/BIOM 573</a></u>	Structure and Function of Biomaterials
<u><a href="#">MECH 628</a></u>	Applied Fracture Mechanics
<u><a href="#">MSE 505</a></u>	Kinetics of Materials
<u><a href="#">PH 631</a></u>	Solid State Physics
<u><a href="#">PH 731</a></u>	Condensed Matter Theory

### Research, Teaching and Dissertation

The Ph.D. requires a minimum of 72 credit hours, some of which may be fulfilled with the following:

<u><a href="#">MSE 651</a></u>	Special Topics in Materials Science
<u><a href="#">MSE 695</a></u>	Independent Study
<u><a href="#">MSE 699</a></u>	Thesis
<u><a href="#">MSE 784</a></u>	Supervised College Teaching
<u><a href="#">MSE 795</a></u>	Independent Study
<u><a href="#">MSE 799</a></u>	Dissertation

### Program Total Credits:

23

<sup>1</sup> Students must register for 1 credit of [MSE 793](#) each of their first 4 semesters in the program.

<sup>2</sup> [CHEM 511](#), [CHEM 517](#), [PH 531](#), and [ECE 574](#) can be used as specialty courses, if not used to fulfill core requirements.

<sup>3</sup> See department for list of special topics in Nanophotonics.

A minimum of 72 credits are required to complete this program.



**Major Changes to Existing Programs**

**College of Business  
 Department of Marketing  
 Graduate Certificate in Marketing Management**

**Effective Fall 2017**  
[Link to CIM](#)

**Reason for Request:** MKT 621 is an established elective in the MBA program and will allow another 1 credit course option within the current marketing certificate.

Graduate coursework in marketing to provide students with a foundation and in-depth understanding of marketing topics.

**Effective Fall 2017 ~~2015~~**

**Additional coursework may be required due to prerequisites.**

Code	Title	Credits
<u>BUS 655</u>	Marketing Management	2
<u>BUS 656</u>	Marketing Strategy and Planning	2
<u>Select five courses from the following:</u>		<u>5</u>
<u>MKT 610</u>	Qualitative Marketing Research Methods	
<u>MKT 611</u>	Quantitative Marketing Research Methods	
<u>MKT 621</u>	<u>Search Engine Marketing and Optimization</u>	
<u>MKT 661</u>	Consumer Behavior	
<u>MKT 662</u>	Strategic Selling for Business Customers	
<u>MKT 667</u>	Services Marketing Management	

**Program Total Credits:** **9**

\*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.



**College of Liberal Arts  
 Department of Communication Studies  
 Master of Arts in Communication Studies, Plan B, Deliberative Practices Specialization**

**Effective Fall 2017**  
[Link to CIM](#)

**Effective Fall 2017 ~~2013~~**

Code	Title	Credits
<b>Core</b>		
<u>SPCM 408</u>	Applied Deliberative Techniques	3
<u>SPCM 508</u>	Deliberative Theory and Practice	3
<u>SPCM 601</u>	History of Rhetorical Theory	3
<u>SPCM 612</u>	Rhetorical Criticism	3
<u>SPCM 638</u>	Communication Research Methods	3
<u>SPCM 639</u>	Communication Theory	3
<del>SPCM 647</del>	<del>Media Industries</del>	

Code	Title	Credits
<del>SPCM 648</del>	<del>Media Texts</del>	
<del>SPCM 649</del>	<del>Media Audiences</del>	
<del>SPCM 650</del>	<del>Contemporary Issues in Media</del>	
<del>Out of department graduate course</del>		
<u>SPCM 646</u>	Media Theory	3
<u>SPCM 686</u>	Practicum	3
<u>SPCM 692</u>	Seminar	3
<u>SPCM 695</u>	Independent Study <sup>1</sup>	3
<del>Select 12 credits from the following:<sup>3</sup></del>		<del>12</del>
<del><u>SPCM 538</u></del>	<del>Communicating in the Health Clinic</del>	
<del><u>SPCM 540</u></del>	<del>Rhetoric, Race, and Identity</del>	
<del><u>SPCM 604</u></del>	<del>Rhetoric of Everyday Life</del>	
<del><u>SPCM 611</u></del>	<del>Topics in Public Address</del>	
<del><u>SPCM 620</u></del>	<del>Rhetoric and Public Affairs</del>	
<del><u>SPCM 623</u></del>	<del>Feminist Theories of Discourse</del>	
<del><u>SPCM 632</u></del>	<del>Theories of Interpersonal Communication</del>	
<del><u>SPCM 633</u></del>	<del>Discourse, Work, and Organization</del>	
<del><u>SPCM 634</u></del>	<del>Communication and Cultural Diversity</del>	
<u>Electives<sup>2</sup></u>		<u>9</u>
<b>Program Total Credits:</b>		<b>39</b>

A minimum of 39 credits are required to complete this program.

<sup>1</sup> Students must complete a deliberative practices project in SPCM 695. Project will be based on Center for Public Deliberation program.

<sup>2</sup> All credits must be taken at the graduate level (500- or 600-level). A minimum of 6 9 credits must be SPCM subject code courses. ~~3 credits may be taken from an outside department.~~



University Curriculum Committee  
February 24, 2017  
**CONSENT AGENDA**

**Minor Changes to Courses**

<b>Course Title</b>	<b>Requested Change</b>	<b>Effective Term</b>
<a href="#">CS 370</a> Operating Systems	<b>Prerequisite Courses:</b> (CS 220 with a minimum grade of C); <del>(CS 253 with a minimum grade of C); and</del> ((CS 270 with a minimum grade of C) or (ECE 251 with a minimum grade of C; <a href="#">CS 155 with a minimum grade of C</a> ; <a href="#">CS 156 each with a minimum grade of C</a> ) or ( <a href="#">CS 253 with a minimum grade of C</a> )).	Fall 2018
<a href="#">ECE 561</a> Hardware/Software Design of Embedded Systems	<b>Offering Term:</b> Fall, <del>Spring</del>	Fall 2017

**Course Drops**

<b>Course Title</b>	<b>Requested Change</b>	<b>Effective Term</b>
<a href="#">ECE 674/CS 674</a> Heterogeneous Computing	Drop	Summer 2017

