UNIVERSITY CURRICULUM COMMITTEE AGENDA
2:00 p.m., Friday, January 15, 2016
106 Administration, Provost Conference Room

Note: If you are unable to attend or will be sending a substitute, please notify Carole Makela (1-5141) prior to the meeting.

MINUTES – Minutes of December 11, 2015

CONSENT AGENDA
See listing after New Business.

EXPERIMENTAL COURSE REPORT
None.

CIM Considerations

CIM Forms
CIM Processes
CIM Help Bubbles

CHAIR'S AGENDA

Information Items
Discussion Items
Action Items

PENDING CoSRGE

Master of Engineering, Electrical Engineering Specialization
MA in Ethnic Studies, Plan A
MA in Ethnic Studies, Plan B
Master of Fish, Wildlife, & Conservation Biology, Plan C
Certificate in Women's and Gender Studies
Certificate in Conflict Resolution and Mediation
Certificate in Languages, Literatures and Cultures
MS in Ecology, Plan A
MS in Ecology, Plan B
PhD in Ecology
Master of Greenhouse Gas Management and Accounting, Plan C
Master of Cell Molecular Biology, Plan A
Master of Cell Molecular Biology, Plan B
Ph.D. in Cell Molecular Biology

OLD BUSINESS

	Course Code/Title	Credit	Format
CS 163	CS 163: CS1: Java-No Prior Programming	4	FACE-TO-FACE

Reason for Request: The CS program currently uses three courses to teach Java Programming techniques (and programming techniques generally) plus discrete mathematics. We are unique in that we spread the discrete math topics throughout the first three courses (CS160, CS161, CS200). This has caused certain problems: students are unable to make context switches within their classes, and often lack the math preparation to understand the discrete math that early in the program. Since our courses are unique, transfer students are difficult to place. We intend to replace those three classes with three new ones, CS163 (for non-programmers), or CS164 (same material for students with some programming background), followed by CS165 (Data Structures), and then by CS220 (a stand alone discrete structures course). This is in keeping with the practices of most CS programs, and more in line with the recommendations of the Association of Computing Machinery (ACM) which recommends curricula for computer science programs. It will allow us to have a direct equivalent for AP Computer Science, and for many transfer intro programming courses taught in Java.

CS 164	CS 164: CS1: Java-Prior Programming	4	FACE-TO-FACE	
Reason for Request:	The CS program currently uses three courses to teach Java Programming techniques (and programming techniques generally) plus discrete mathematics. We are unique in that we spread the discrete math topics throughout the first three courses (CS160, CS161, CS200). This has caused certain problems: students are unable to make context switches within their classes, and often lack the math preparation to understand the discrete math that early in the program. Since our courses are unique, transfer students are difficult to place. We intend to replace those three classes with three new ones, CS163 (for non-programmers), or CS164 (same material for students with some programming background), followed by CS165 (Data Structures), and then by CS220 (a stand alone discrete structures course). This is in keeping with the practices of most CS programs, and more in line with the recommendations of the Association of Computing Machinery (ACM) which recommends curricula for computer science programs. It will allow us to have a direct equivalent for AP Computer Science, and for many transfer intro programming courses taught in Java.			
GES 520	GES 520: Issues in Global Environmental Sustainability	3	FACE-TO-FACE, ONLINE	
Reason for Request:	The only change in this request is to add an online option. The course has been taught on campus for several years and with the addition of several GES graduate certificates we will be offering the course online as well for distance learners in the target audience for the certificates. There are a number of people in government, NGOs and business who are interested in the field but cannot take the course face-to-face.			
INST 301	INST 301: Global Commodities Across the Disciplines	3	FACE-TO-FACE	
Reason for Request:	This course builds on the content and methodology of INST 200 and prepares students for the Capstone Seminar and Senior Thesis requirement while enriching students' knowledge of key issues within the field of International Studies.			
PSY 488	PSY 488: Field Placement	1-3	INTERNSHIP/ PRACTICUM	AUCC 4
Reason for Request:	The primary reason for the request is to make PSY 488, in combination with PSY 330, the capstone experience for students in the proposed Counseling/Clinical Psychology Concentration. In addition, the Department wishes to limit PSY 488 to students in the Addictions Counseling and Counseling/Clinical concentrations, with PSY 310 Basic Counseling Skills serving as a required prerequisite in which students learn the skills that are then applied in PSY 488.			
SOC 324	SOC 324: Food Justice	3	FACE-TO-FACE	
Reason for Request:	The department has a long history of expertise in the sociology of food and agriculture, and this course augments undergraduate offerings in that area. It also provides an additional upper division elective option for students in the general sociology and environmental sociology concentrations.			
SPCM 320	SPCM 320: Communication and Anti Human Trafficking	3	FACE-TO FACE	
Reason for Request:	Human trafficking is an issue of increasing importance globally and locally, and one about which students are passionate. The Communication field has a rich literature assessing abolition rhetoric and an emerging focus on contemporary anti-trafficking discourse, but our current courses do not attend closely to this material. There is no course offered on campus that examines how communication frames the issue of human trafficking.			

College of Natural Sciences **Effective Fall 2016**
Department of Physics
Major in Physics
Applied Physics Concentration PHYS-APPZ-BS

Reason for Request:	Department lists were never approved through the curriculum process, so the main purpose of this request is to bring longstanding practice as encoded in DARS and our department checksheets (which are not entirely consistent!) into the light. Some minor changes are made to account for the existence of a new course, Analytical Techniques for Physics.

All courses used to meet requirements ~~Majors must achieve a minimum grade~~ of ~~C- in all specific courses listed in~~ the degree need a minimum grade of C-, with ~~Core Program for freshman and sophomore years, in CO 301B and CO 300, in all CSU physics, mathematics, and technical elective courses which are used to meet requirements for~~ the following exceptions: ~~degree~~. Courses taken to satisfy AUCC Categories 3B, 3C, 3D, and 3E, and those taken as unrestricted electives.[1]

Freshman

		AUCC	Credits
CO 150	College Composition (GT-CO2)	1A	3
Select 3-4 credits from the following:			
CS 155	Introduction to Unix		1
CS 156	Introduction to C Programming I		1
CS 157	Introduction to C Programming II		1
CS 160	Foundations in Programming		4
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
PH 142	Physics for Scientists and Engineers II (GT-SC1)	3A	5
~~Elective~~		~~-~~	~~6~~
Arts and Humanities		3B	6
	Total Credits		30-31

Sophomore

CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
MATH 261	Calculus for Physical Scientists III		4
Select one from the following:			
MATH 340	Introduction to Ordinary Differential Equations		4
MATH 345	Differential Equations		4
PH 245[2]	Introduction to Electronics		3
PH 293	Selected Topics in Physics		1
PH 314	Introduction to Modern Physics		4
PH 315	Modern Physics Laboratory		2
~~Arts and Humanities~~		~~3B~~	~~3~~
Social and Behavioral Sciences		3C	3
~~Elective~~		~~-~~	~~2~~
Historical Perspectives		3D	3
	Total Credits		29

Junior

Select one from the following:[3]

CHEM 301	Advanced Scientific Writing--Chemistry (GT-CO3)	2	3
CO 300	Writing Arguments (GT-CO3)	2	3
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	3
LB 300	Specialized Professional Writing	2	3
PH 341	Mechanics		4
PH 351[4]	Electricity and Magnetism		4
PH 353	Optics and Waves		4
PH 361	Physical Thermodynamics		3
~~Arts and Humanities~~		~~3B~~	~~3~~
Select either		-	
PH 327	Analytical Techniques for Physics	-	3
Electives[1]		-	6
Or		-	-
Electives[1]		-	3
Technical Electives List 1[5]		-	3
Technical Electives List 2[6]		-	3
Global and Cultural Awareness		3E	3
~~Historical Perspectives~~		~~3D~~	~~3~~
~~Electives~~		~~-~~	~~3~~
	Total Credits		30

Senior

PH 425	Advanced Physics Laboratory	4C	2
PH 451	Introductory Quantum Mechanics I	4A,4B	3
PH 492	Seminar	4C	1
~~Technical Electives[1]~~		~~-~~	~~18~~
~~Electives[2]~~		~~-~~	~~5~~
Selected Field[7]		-	12
Electives[1]		-	13 -12
	Total Credits		31-30
	Program Total Credits:		120

Technical Electives List 1

Course List

Code	Title	Credits
AA 301	Astrophysics I	5
AA 302	Astrophysics II	5
AA 303	Astrophysics III	5
BC 411	Physical Biochemistry	4
CBE 331	Momentum Transfer and Mechanical Separations	3
CBE 332	Heat and Mass Transfer Fundamentals	3
CHEM 113	General Chemistry II	3
CHEM 114	General Chemistry Lab II	1
CHEM 245	Fundamentals of Organic Chemistry	4
CHEM 341	Modern Organic Chemistry I	3
CHEM 343	Modern Organic Chemistry II	3
CHEM 345	Organic Chemistry I	4

Course List

Code	Title	Credits
CHEM 346	Organic Chemistry II	4
CHEM 461	Inorganic Chemistry	3
CHEM 474	Physical Chemistry I	3
CHEM 476	Physical Chemistry II	3
CIVE 300	Fluid Mechanics	3
CIVE 301	Fluid Mechanics Laboratory	1
CS 253	Software Development with C++	4
CS 410	Introduction to Computer Graphics	4
CS 440	Introduction to Artificial Intelligence	4
CS 475	Parallel Programming	4
ECE 312	Linear System Analysis II	3
ECE 331	Electronics Principles I	4
ECE 332	Electronics Principles II	4
ECE 404	Experiments in Optical Electronics	2
ECE 441	Optical Electronics	3
ECE 444	Antennas and Radiation	3
ECE 471A	Semiconductor Physics	1
ECE 471B	Semiconductor Junctions	1
ECE 507	Plasma Physics and Applications	3
ECE 546	Laser Fundamentals and Devices	3
ERHS 450	Introduction to Radiation Biology	3
ERHS 530	Radiological Physics and Dosimetry I	3
ERHS 531	Nuclear Instruments and Measurements	2
GEOL 578	Global Seismology	4
MATH 317	Advanced Calculus of One Variable	4
MATH 332	Partial Differential Equations	3
MATH 366	Introduction to Abstract Algebra	3
MATH 369	Linear Algebra I	3
MATH 405	Introduction to Number Theory	3
MATH 419	Introduction to Complex Variables	3
MATH 450	Introduction to Numerical Analysis I	3
MATH 451	Introduction to Numerical Analysis II	3
MATH 466	Abstract Algebra I	3
MATH 467	Abstract Algebra II	3
MATH 470	Euclidean and Non-Euclidean Geometry	3
MATH 472	Introduction to Topology	3
MATH 474	Introduction to Differential Geometry	3
MECH 331	Introduction to Engineering Materials	4
MECH 344	Heat and Mass Transfer	3
MECH 460	Aeronautics	3
MECH 468	Space Propulsion and Power Engineering	3
PH 517	Chaos, Fractals, and Nonlinear Dynamics	3
PH 521	Introduction to Lasers	3
PH 522	Introductory Laser Laboratory	1
PH 531	Introductory Solid State Physics	3

Course List

Code	Title	Credits
PH 561	Elementary Particle Physics	3
PH 571	Mathematical Methods for Physics I	3
PH 572	Mathematical Methods for Physics II	3
STAT 315	Statistics for Engineers and Scientists	3
STAT 321	Elementary Probabilistic-Stochastic Modeling	3
STAT 340	Multiple Regression Analysis	3
STAT 420	Probability and Mathematical Statistics I	3
STAT 421	Introduction to Stochastic Processes	3
STAT 430	Probability and Mathematical Statistics II	3
STAT 460	Applied Multivariate Analysis	3

Technical Electives List 2

Course List

Code	Title	Credits
AA 301	Astrophysics I	5
AA 302	Astrophysics II	5
AA 303	Astrophysics III	5
CHEM 113	General Chemistry II	3
CHEM 114	General Chemistry Lab II	1
CIVE 300	Fluid Mechanics	3
CIVE 301	Fluid Mechanics Laboratory	1
ECE 507	Plasma Physics and Applications	3
MATH 317	Advanced Calculus of One Variable	4
MATH 332	Partial Differential Equations	3
MATH 366	Introduction to Abstract Algebra	3
MATH 369	Linear Algebra I	3
MATH 405	Introduction to Number Theory	3
MATH 419	Introduction to Complex Variables	3
MATH 450	Introduction to Numerical Analysis I	3
MATH 451	Introduction to Numerical Analysis II	3
MATH 466	Abstract Algebra I	3
MATH 467	Abstract Algebra II	3
MATH 470	Euclidean and Non-Euclidean Geometry	3
MATH 472	Introduction to Topology	3
MATH 474	Introduction to Differential Geometry	3
MECH 331	Introduction to Engineering Materials	4
MECH 344	Heat and Mass Transfer	3
MECH 468	Space Propulsion and Power Engineering	3
PH 498	Research	1-6
PH 517	Chaos, Fractals, and Nonlinear Dynamics	3
PH 521	Introduction to Lasers	3
PH 522	Introductory Laser Laboratory	1
PH 531	Introductory Solid State Physics	3
PH 561	Elementary Particle Physics	3
PH 571	Mathematical Methods for Physics I	3

Course List

Code	Title	Credits
PH 572	Mathematical Methods for Physics II	3
STAT 315	Statistics for Engineers and Scientists	3
STAT 321	Elementary Probabilistic-Stochastic Modeling	3
STAT 340	Multiple Regression Analysis	3
STAT 420	Probability and Mathematical Statistics I	3
STAT 421	Introduction to Stochastic Processes	3
STAT 430	Probability and Mathematical Statistics II	3
STAT 460	Applied Multivariate Analysis	3

Biophysics Field

Course List

Code	Title	Credits
BC 351	Principles of Biochemistry	4
BC 411	Physical Biochemistry	4
BC 463	Molecular Genetics	3
BC 464	Molecular Genetics Recitation	1
BC 465	Molecular Regulation of Cell Function	3
BC 467	Biochemistry of Disease	3
BIOM 330	Transport Phenomena in Biomedical Engineering	3
BIOM 400	Kinetics of Biomolecular and Cellular Systems	3
BIOM 441	Biomechanics and Biomaterials	3
BIOM 470	Biomedical Engineering	3
BIOM 526	Biological Physics	3
BZ 310	Cell Biology	4
CHEM 433	Clinical Chemistry	3
ERHS 450	Introduction to Radiation Biology	3
ERHS 530	Radiological Physics and Dosimetry I	3
ERHS 531	Nuclear Instruments and Measurements	2
ERHS 550	Principles of Radiation Biology	5
MIP 300	General Microbiology	3
MIP 450	Microbial Genetics	3

Chemistry Field

Course List

Code	Title	Credits
BC 351	Principles of Biochemistry	4
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BC 404	Comprehensive Biochemistry Laboratory	2
BC 411	Physical Biochemistry	4
CHEM 245	Fundamentals of Organic Chemistry	4
CHEM 246	Fundamentals of Organic Chemistry Laboratory	1
CHEM 261	Fundamentals of Inorganic Chemistry	3
CHEM 335	Introduction to Analytical Chemistry	3
CHEM 341	Modern Organic Chemistry I	3
CHEM 343	Modern Organic Chemistry II	3

Course List

Code	Title	Credits
CHEM 344	Modern Organic Chemistry Laboratory	2
CHEM 345	Organic Chemistry I	4
CHEM 346	Organic Chemistry II	4
CHEM 440	Advanced Organic Chemistry Laboratory	2
CHEM 461	Inorganic Chemistry	3
CHEM 462	Inorganic Chemistry Laboratory	2
CHEM 474	Physical Chemistry I	3
CHEM 475	Physical Chemistry Laboratory I	1
CHEM 476	Physical Chemistry II	3
CHEM 477	Physical Chemistry Laboratory II	1

Computers Field

Course List

Code	Title	Credits
CS 200	Algorithms and Data Structures [8]	4
CS 253	Software Development with C++ [8]	4
CS 270	Computer Organization [8]	4
CS 314	Software Engineering	3
CS 320	Algorithms--Theory and Practice	3
CS 356	Systems Security	3
CS 370	Operating Systems	3
CS 410	Introduction to Computer Graphics [8]	4
CS 414	Object-Oriented Design [8]	4
CS 420	Introduction to Analysis of Algorithms [8]	4
CS 430	Database Systems [8]	4
CS 435	Introduction to Big Data [8]	4
CS 440	Introduction to Artificial Intelligence [8]	4
CS 453	Introduction to Compiler Construction [8]	4
CS 454	Principles of Programming Languages [8]	4
CS 455	Introduction to Distributed Systems [8]	4
CS 457	Computer Networks and the Internet [8]	4
CS 470	Computer Architecture [8]	4
CS 475	Parallel Programming [8]	4
ECE 251	Introduction to Microprocessors	4
ECE 423	DSP for Communications	3
ECE 450	Digital System Design Laboratory	1
ECE 451	Digital System Design	3
ECE 452	Computer Organization and Architecture	3
ECE 454	Database Computers	3
ECE 456	Computer Networks	4
MATH 360	Mathematics of Information Security	3
MATH 460	Information and Coding Theory	3

Custom Field

Specific courses forming a coherent program are selected by the student in consultation with their academic advisor and subject to approval of the Key Advisor. Only 3 credits from each AA and CS course counts towards the 12 credit requirement.

Electronics, Semiconductors, and Optics Field

Course List

Code	Title	Credits
ECE 311	Linear System Analysis I	3
ECE 312	Linear System Analysis II	3
ECE 331	Electronics Principles I	4
ECE 332	Electronics Principles II	4
ECE 404	Experiments in Optical Electronics	2
ECE 411	Control Systems	4
ECE 412	Digital Control and Digital Filters	3
ECE 421	Telecommunications I	3
ECE 422	Telecommunications II	3
ECE 430	Fourier and Wavelet Analysis with Apps	3
ECE 441	Optical Electronics	3
ECE 444	Antennas and Radiation	3
ECE 457	Fourier Optics	3
ECE 471A	Semiconductor Physics	1
ECE 471B	Semiconductor Junctions	1
ECE 472	MOS Integrated Circuits	3
ECE 546	Laser Fundamentals and Devices	3

Geophysics Field

Course List

Code	Title	Credits
CIVE 413	Environmental River Mechanics	3
GEOL 232	Mineralogy	3
GEOL 250	The Solid Earth	3
GEOL 332	Optical Mineralogy	2
GEOL 344	Stratigraphy and Sedimentology	4
GEOL 372	Structural Geology	4
GEOL 442	Applied Geophysics	4
GEOL 446	Environmental Geology	3
GEOL 454	Geomorphology	4
GEOL 530	Advanced Petrology	3
GEOL 570	Plate Tectonics	3

Materials and Fluids Field

Course List

Code	Title	Credits
CBE 331	Momentum Transfer and Mechanical Separations	3
CBE 332	Heat and Mass Transfer Fundamentals	3
CIVE 300	Fluid Mechanics	3
CIVE 301	Fluid Mechanics Laboratory	1

Course List

Code	Title	Credits
CIVE 363	Material Properties	1
CIVE 401	Hydraulic Engineering	3
CIVE 413	Environmental River Mechanics	3
MECH 331	Introduction to Engineering Materials	4
MECH 338	Thermal/Fluid Sciences Laboratory	1
MECH 342	Mechanics and Thermodynamics of Flow Processes	3
MECH 344	Heat and Mass Transfer	3
MECH 460	Aeronautics	3
PH 531	Introductory Solid State Physics	3

Medical Physics Field

Course List

Code	Title	Credits
BC 467	Biochemistry of Disease	3
BIOM 330	Transport Phenomena in Biomedical Engineering	3
BIOM 400	Kinetics of Biomolecular and Cellular Systems	3
BIOM 470	Biomedical Engineering	3
BMS 300	Principles of Human Physiology	4
BMS 325	Cellular Neurobiology	3
BMS 345	Functional Neuroanatomy	4
CHEM 433	Clinical Chemistry	3
ERHS 332	Principles of Epidemiology	3
ERHS 450	Introduction to Radiation Biology	3
ERHS 530	Radiological Physics and Dosimetry I	3
ERHS 531	Nuclear Instruments and Measurements	2
ERHS 556	Monte Carlo Methods in Health Physics	3
ERHS 561	Radiation Public Health	2
ERHS 563	Environmental Contaminant Modeling I	2
ERHS 570	Radioecology	2
MIP 300	General Microbiology	3
MIP 342	Immunology	4
MIP 351	Medical Bacteriology	3
MIP 420	Medical and Molecular Virology	4

[1] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- , 400-level, or 500-level). ~~For this concentration, 18 credits of technical electives must be selected from the departmental list.~~

[2] For students who change majors from Electrical Engineering or are double-majoring in Electrical Engineering, ECE 202 with a grade of C- or above is routinely accepted as a substitute. ~~Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).~~

[3] CHEM 301 and CO 301B are recommended. Other courses in AUCC Category 2 may be accepted as substitutes if they are taken prior to declaring the Physics major or are taken to meet requirements of another major.

[4] For students who change majors from Electrical Engineering or are double-majoring in Electrical Engineering, ECE 341 and ECE 342 with grades of C- or above are routinely accepted as a substitute.

[5] Select a minimum of 3 credits from Technical Electives List 1.

[6] Select a minimum of 3 credits from Technical Electives List 2.

[7] At least 12 credits must be taken from one field, and a minimum of 6 of those credits must be 300-, 400-, or 500-level.

[8] Only 3 credits from this course are applied towards the 12 credit Field requirement.

College of Engineering **Effective Fall 2016**
Department of Electrical & Computer Engineering
Major in Electrical Engineering
Lasers and Optical Engineering Concentration ELEG-LOEZ-BS

Reason for Request: The request is to increase all undergraduate programs in ECE to 129 credits. This requirement will not be a disincentive for students to enroll in our program, and will not place an additional burden on existing students. In addition, all other engineering programs at CSU are 129 or 130 credits. There are a number of advantages to students including; 1) Allowing the application of coursework when a student changes their major to Electrical and Computer Engineering. For example, students who come to ECE from the Undeclared Engineering program take a 100-level Grand Challenges course. Currently, those credits do not count toward the ECE degree. With these additional free elective credits available students may choose to apply the Grand Challenges course to those credits; 2) Many students start the program with AP credits. which they can now apply for credit toward the degree; 3) Similarly, transfer students may have courses that do not directly apply toward required ECE courses, so they can transfer credits to the free elective credits which recognizes the value of the transfer credit; 4) Students can now take an additional course outside the department if they wish, to satisfy an interest area (e.g. music). This will allow us to encourage students to explore interests outside ECE, creating more well-rounded engineers; and 5) Student can apply prerequisites for Technical and Science/Math/Engineering electives to the major which increases their likelihood to take courses outside of the general curriculum. There are also a number of advantages to the ECE curriculum and engineering education. Based on the finding in the Engineering 2020 project conducted by the National Academy of Engineering Committee on Engineering Education in 2004. "It is appropriate that engineers are educated to understand and appreciate history, philosophy, culture and the arts, along with the creative elements of all of the disciplines. This supports the case to make appropriately designed engineering curriculum that offers education that is more well-rounded." In addition, this curricular addition helps shape the curriculum for 2020 to be responsive to disparate learning styles of different populations and attractive for all those seeking a full and well-rounded education." Although the AUCC requirements provide 12-15 credits in arts, humanities, behavioral and social sciences, courses in art, geography, music, speech and theaters can be used only with prior approval of the advisor and they must be chosen in a way to also meet the All-University Core Curriculum requirements. This places a significant limitation for students to take courses that do not meet the AUCC requirements but do contribute to a well-rounded educational experience. This provides an opportunity to promote the value of curiosity and a lifelong desire to learn. Finally, this provides further multidisciplinary education within and beyond engineering. It expands the curriculum well beyond regular engineering coursework in science, math, engineering fundamentals, analytical and design skills, and problem solving skills.

In order to maintain professional standards required of practicing engineers, the Department of Electrical and Computer Engineering requires a cumulative grade point average of at least 2.000 in Electrical Engineering courses as a graduation requirement. It is the responsibility of any student who fails to maintain a 2.000 average to work with his or her advisor to correct grade point deficiencies. In addition, it is required that students retake any Electrical Engineering course at the 300 level or below in which they receive a grade below a C.

FRESHMAN			
CO 150	College Composition (GT-CO2)	1A	3
~~Select 3-4 credits from the following:~~		~~-~~	~~3-4~~
Select 3-4 credits from the following:[1]		-	
CS 155	Introduction to Unix		1
CS 156	Introduction to C Programming I		1
CS 157	Introduction to C Programming II		1
CS 160	Foundations in Programming		4
ECE 102	Digital Circuit Logic		4

ECE 103	DC Circuit Analysis		3
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
Historical Perspectives		3D	3
Free Elective[2]		-	3-4
Additional Requirements for Graduation[1,3]			0
	Total Credits		**33**
SOPHOMORE			
CHEM 111	General Chemistry I (GT-SC2)	3A	4
ECE 202	Circuit Theory Applications		4
ECON 202	Principles of Microeconomics (GT-SS1)	3C	3
MATH 261	Calculus for Physical Scientists III		4

Select one from the following:			
MATH 340	Introduction to Ordinary Differential Equations		4
MATH 345	Differential Equations		4
PH 142	Physics for Scientists and Engineers II (GT-SC1)	3A	5
PH 314	Introduction to Modern Physics		4
Arts and Humanities		3B	3
Additional Requirements for Graduation[1,3]			0
	Total Credits		**31**
JUNIOR			
Select one from the following:			
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	3
JTC 300	Professional and Technical Communication (GT-CO3)	2	3
ECE 311	Linear System Analysis I		3
ECE 331	Electronics Principles I		4
ECE 332	Electronics Principles II	4A	4
ECE 341	Electromagnetic Fields and Devices I		3
ECE 342	Electromagnetic Fields and Devices II		3
PH 353	Optics and Waves		4
Arts and Humanities		3B	3
Global and Cultural Awareness		3E	3
Science/Engineering Elective (see list below)			3
Additional Requirements for Graduation[1,3]			0

		Total Credits	**33**
SENIOR			
ECE 303/STAT 303	Introduction to Communications Principles		3
ECE 401[~~3~~4]	Senior Design Project I	4A,4B	3
ECE 402	Senior Design Project II	4C	3
ECE 404	Experiments in Optical Electronics		2
ECE 441	Optical Electronics		3
ECE 457	Fourier Optics		3
PH 451	Introductory Quantum Mechanics I		3
Technical Electives (see list below)			12
Additional Requirements for Graduation[~~1~~3]			0
		Total Credits	**32**
	Program Total Credits:		**129**

Code	Title	Credits
Science/Engineering Electives		
BC 351	Principles of Biochemistry	4
BIOM 306/BTEC 306	Bioprocess Engineering	4
BMS 300	Principles of Human Physiology	4
BMS 301	Human Gross Anatomy	5
BMS 325	Cellular Neurobiology	3
BMS 345	Functional Neuroanatomy	4
BZ 310	Cell Biology	4
CHEM 112	General Chemistry Lab I (GT-SC1)	1
CHEM 245	Fundamentals of Organic Chemistry	4
CHEM 246	Fundamentals of Organic Chemistry Laboratory	1
CIVE 260	Engineering Mechanics-Statics	3
CS 122/MATH 122	Theory for Introductory Programming	1
CS 155	Introduction to Unix [~~3~~1]	1
CS 156	Introduction to C Programming I [~~3~~1]	1
CS 157	Introduction to C Programming II [~~3~~1]	1
CS 161	Object-Oriented Problem Solving	4
CS 200	Algorithms and Data Structures	4
CS 253	Software Development with C++	4
CS 370	Operating Systems	3
ECE 395	Independent Study [~~4~~5]	1-18
HES 307	Biomechanical Principles of Human Movement	3

Code	Title	Credits
LIFE 103	Biology of Organisms-Animals and Plants	4
MATH 151	Mathematical Algorithms in Matlab I	1
MATH 229	Matrices and Linear Equations	2
MATH 332	Partial Differential Equations	3
MATH 366	Introduction to Abstract Algebra	3
MATH 369	Linear Algebra I	3
MECH 237	Introduction to Thermal Sciences [5][6]	3
MECH 303	Energy Engineering	3
MECH 337	Thermodynamics [5][6]	4
MIP 300	General Microbiology	3
PH 341	Mechanics	4
PH 353	Optics and Waves	4

Course List

Code	Title	Credits
Technical Electives		
BIOM 526/ECE 526	Biological Physics	3
BIOM 470/MECH 470	Biomedical Engineering	3
BIOM 570/MECH 570	Bioengineering	3
ECE 411	Control Systems	4
ECE 412	Digital Control and Digital Filters	3
ECE 444	Antennas and Radiation	3
ECE 450	Digital System Design Laboratory	1
ECE 451	Digital System Design	3
ECE 461	Power Systems	3
ECE 462	Power Systems Laboratory	1
ECE 471A	Semiconductor Physics	1
ECE 471B	Semiconductor Junctions	1
ECE 495	Independent Study [5]	1-18
ECE 503	Ultrafast Optics	3
ECE 504	Physical Optics	3
ECE 505	Nanostructures: Fundamentals and Applications	3
ECE 506	Optical Interferometry and Laser Metrology	3
ECE 507	Plasma Physics and Applications	3
ECE 520	Optimization Methods-Control and Communication	3
ECE 525	Fiber Optic Communications	3
ECE 546	Laser Fundamentals and Devices	3

Code	Title	Credits
ECE 571	VLSI System Design	3
ECE 572	Semiconductor Transistors	1
ECE 573	Semiconductor Optoelectronics Laboratory	3
ECE 574	Optical Properties in Solids	3
ECE 575	Experiments in VLSI System Design I	1
ECE 58* Experimental Courses in Lasers/Optics Topics		
MATH 419	Introduction to Complex Variables	3
PH 315	Modern Physics Laboratory	2
PH 425	Advanced Physics Laboratory	2
PH 452	Introductory Quantum Mechanics II	3
PH 462	Statistical Physics	3
Course List		

1 **CS 155**, **CS 156**, and **CS 157** count as Science/Engineering electives only when taken with **CS 160**. **CS 160** will be applied to the freshman year selection requirement. ~~Students are required to participate in the Professional Learning Institute (PLI) program as a requirement for graduation. The program consists of eleven PLI workshops distributed by focus areas as follows: Global and Cultural Diversity (2 workshops), Innovation (2 workshops), Leadership (2 workshops), Civic and Public Engagement (2 workshops), and Ethics (3 workshops). Each workshop is between 1-2 hours long and no outside preparation is required to attend any of the workshops. Attendance at the required workshops may be spread over the student's four-year program.~~

2 Free elective credits can be satisfied by completing courses 100 level or above. Student use up to 4 credits of free electives to reach the required total of 129 program credits. ~~Project must be a laser and optical engineering topic.~~

3 Students are required to participate in the Professional Learning Institute (PLI) program as a requirement for graduation. The program consists of eleven PLI workshops distributed by focus areas as follows: Global and Cultural Diversity (2 workshops), Innovation (2 workshops), Leadership (2 workshops), Civic and Public Engagement (2 workshops), and Ethics (3 workshops). Each workshop is between 1-2 hours long and no outside preparation is required to attend any of the workshops. Attendance at the required workshops may be spread over the student's four-year program.
~~**CS 155**, **CS 156**, and **CS 157** count as Science/Engineering electives only when taken with **CS 160**. **CS 160** will be applied to the freshman year selection requirement.~~

4 Project must be a laser and optical engineering topic. ~~Only 3 credits of Independent Study may apply to degree requirements. Credit for **ECE 395** and **ECE 495** for a total of 3 credits of Independent Study that may apply toward degree requirements.~~

5 Only 3 credits of Independent Study may apply to degree requirements. Credit for **ECE 395** and **ECE 495** for a total of 3 credits of Independent Study that may apply toward degree requirements. ~~Students may take either **MECH 237** or **MECH 337** to fulfill degree requirements. Credit will not be counted for both toward the degree.~~

6 Students may take either **MECH 237** or **MECH 337** to fulfill degree requirements. Credit will not be counted for both toward the degree.

Intra-University **Effective Spring 2016**
Interdisciplinary Minor in Sports Management ISMQ

Reason for Request: The fields surrounding sports management represent a large and growing opportunity for students in careers from public relations and events planning to facilities management and social science research. This minor will provide students with an overview of the skill sets and challenges surrounding the sports industry, which is currently lacking in the curriculum at Colorado State University, including leadership, planning and critical analysis. While many of the courses involved already exist, there is no curricular product to guide students through the complement needed to explore the field of sports management.

Required Courses

~~Select one of the following courses:~~		~~3~~
~~AREC 202~~	~~Agricultural and Resource Economics~~	
~~ECON 101~~	~~Economics of Social Issues~~	
~~ECON 202~~	~~Principles of Microeconomics~~	
~~ETST 377~~	~~African Americans in Sports~~	~~3~~
ETST 314	Inclusive Sports Organizations	3
IU 140	Course IU 140 Not Found	2
~~IU 193~~	~~Freshman Seminar~~	~~1~~
IU 271	Leadership Styles II: Prominent Leaders [1]	2
Selected Courses (see list below)		3
Select one from the following:		
IU 486	Practicum for Interdisciplinary Leadership [1]	3
Selected Courses (see list below)		3
Select one from the following:		
IU 487	Internship for Interdisciplinary Leadership [1]	3
Selected Courses (see list below)		3

Select one group from the following:

Group A:

MKT 307	Fundamentals of Sports Marketing	3
Selected Courses (see list below)		3

Group B:

MKT 300 or MKT 305	Marketing [2] Fundamentals of Marketing	3
~~MKT 367A~~	~~Sports Marketing~~	~~3~~
~~Or MKT 367B~~	~~Sports Marketing~~	
MKT 367	Sports Marketing [2]	3
Program Total Credits		**22**

Code	Title	Credits

Selected Courses

Code	Title	Credits
AREC 202	Agricultural and Resource Economics (GT-SS1)	3
AREC 346/ECON 346	Economics of Outdoor Recreation	3
CON 101	Introduction to Construction Management	3
CON 462	Financial Management for Construction	3
CON 571	Facility Planning and Management	3
ECON 101	Economics of Social Issues (GT-SS1)	3
ECON 202	Principles of Microeconomics (GT-SS1)	3
FIN 305	Fundamentals of Finance	3
FIN 342	Risk Management and Insurance	3
HDFS 101	Individual and Family Development (GT-SS3)	3
HDFS 311	Adolescent/Early Adult Development in Context	3
HDFS 312	Adult Development-Middle Age and Aging	3
HES 309	Methods of Coaching	2
HES 379	Psychology and Sport	3
HORT 341	Turfgrass Management	3
HORT 441	Turfgrass Science	3
JTC 350	Public Relations	3
JTC 373	Digital Promotion Management	3
MKT 366	Services Marketing	3
PSY 100	General Psychology (GT-SS3)	3
RRM 312	Hospitality Human Resource Management	3
RRM 460	Event and Conference Planning	3
SOC 342	Leisure and Society	3
SOC 343	Sport and Society	3
SPCM 130	Relational and Organizational Communication (GT-SS3)	3
SPCM 200	Public Speaking	3
SPCM 278E	Communication Skills: Intercultural Competence	1
SPCM 278H	Communication Skills: Organizational Training	1
SPCM 436	Conflict Management and Communication	3
Course List		

[1] Students must be selected through a competitive application process. Consult the minor advisor.

[2] Required of Business Majors or Business Minors.

NEW BUSINESS

Summer/Fall 2016

New Courses

	Course Code/Title	Credit	Format
	Agricultural Sciences		
ANEQ 293	ANEQ 293: Animal Science Career Exploration Seminar	1	FACE-TO-FACE
Reason for Request:	The Animal Science major prepares students for a broad array of career opportunities. The proposed course is designed to assist students with choosing a successful career path and developing a personal plan for achieving their career objectives. The proposed sophomore-level course will play a pivotal role in the degree program by guiding students' professional and academic preparation during their final 2 years of study.		
ANEQ 450	ANEQ 450: Processed Meats	3	FACE-TO-FACE
Reason for Request:	There is a need for students (Animal Science) pursuing a career in Meat Science to receive scientific and technical instruction in the manufacturing of processed meats. Meat processing is a significant part of the meat industry and one that has long term career opportunities. We now have sufficient faculty adequate lab space to regularly teach this hands-on elective course.		
ANEQ 626	ANEQ 626: Animal Nutrition, Emissions, and Management	4	FACE-TO-FACE
Reason for Request:	This course will be targeted towards the students in the Master in Greenhouse Gas Management and Accounting program. There is currently a lack of courses at Colorado State University detailing the basics of livestock management, nutrition and the subsequent impact on gaseous emissions from livestock. With livestock emissions being the greatest contributor to methane emissions from agricultural sources it is imperative that these students gain an understanding of the primary practices that will influence these emissions (i.e. nutrition) and other potentially contentious emissions (such as ammonia and nitrous oxide). Along with this, a great deal of emphasis will be placed on introducing these students to real world operations so that they can see and understand first hand the complexities of the modern agricultural production systems and the logistics required to assess greenhouse gas emissions and potential mitigate these emissions as well. It is assumed that many of these students will have a limited background in livestock production, so this course will provide the necessary background and the techniques to achieve the goals of the program.		
	Business		
ACT 211	ACT 211: Accounting Professional Skills	1	FACE-TO-FACE
Reason for Request:	This course will develop a thorough understanding of the professional skills demanded by each of the very different accounting career paths available to students with an accounting concentration. Currently, accounting students must apply for very different career internships and jobs before they understand the complexity of skills required in each different career opportunity. This course will help students create a successful strategic plan for their career success.		
	Engineering		
ECE 647	ECE 647: Syncrotron Rad, FELs and Hard X-Ray Optics	3	FACE-TO-FACE/ ONLINE
Reason for Request:	ECE680A4 was an experimental course offered for one semester. The request is to change it to a permanent offering as the demand for Accelerator Engineering related courses is increasing. We would like to add the course to the non-traditional online offerings by the ECE department. This will expand availability of courses to students pursing Online M.E. degree. In addition, students in the M.S. and Ph.D. programs will have alternative instructional options based on their educational needs.		

Intra-University

IU 172	IU 172: New Student Seminar	1	FACE-TO-FACE
Reason for Request:	This course is a traditional first-year academic course and students will be expected to perform accordingly, while they are learning about what is expected of them in college level courses. Additionally, it is not advisable for first-year students to take pass/fail courses.		

Liberal Arts

ANTH 454	ANTH 454: Anthropological Perspectives on Food	3	FACE-TO-FACE
Reason for Request:	This course covers an important topic in anthropology that is of growing concern locally and nationally, but is not currently addressed in our undergraduate curriculum. It will provide additional opportunities for undergraduate students to synthesize and apply anthropological knowledge to contemporary debates about food as well as to their own food practices.		
SPCM 712	SPCM 712: Critical/Cultural Analysis in Communication	3	FACE-TO-FACE
Reason for Request:	This course is being requested as part of a new PhD degree in Communication Studies. Specifically, this seminar will offer advanced instruction in critical/cultural analysis of visual, verbal, oral, and material rhetoric.		

Natural Resources

ESS 655	ESS 655: Multivariate Analysis for Community Ecology	2	FACE-TO-FACE
Reason for Request:	I developed this course to serve graduate students in GDPE (and affiliated colleges) who need to analyze community data in a multivariate framework for their theses. There are no other options on campus geared towards application of these methods. STAT 460/560 may include a few of the same methods, but since ecological data rarely meet the assumptions of parametric statistics, special techniques have been developed specifically for community ecology. Previous versions of the course (taught as ECOL 592 seminars) have been very well received by both students (eval scores > 4.5) and faculty. I receive frequent requests to offer the course again, so it is time to make it a regular offering.		
FW 692	FW 692: Seminar—Fish, Wildlife, & Conservation Bio	1-18	FACE-TO-FACE/ ONLINE
Reason for Request:	Currently, we offer FW 692 A Fishery Biology and FW 692 B Wildlife Biology on campus and this proposed offering will allow for a combined seminar that aligns with our combined degrees in Fish, Wildlife, and Conservation Biology. It will also allow us to now offer an online option for our Master's Plan C degree (online). FW 692 A and FW 692 B will be removed.		
NRRT 425	NR 425: Communication for Tourism	3	FACE-TO-FACE
Reason for Request:	Communication has many roles in tourism management, from the most obvious: communicating with current and potential visitors; to more subtle applications such as internal and external stakeholder communication, conflict and change management. This course covers current theoretical approaches to communication study, as well as practical application of communication techniques relevant to tourism management.		

Veterinary Medicine & Biomedical Sciences

ERHS 507A	ERHS 507A: Toxicology Toolbox: Fundamentals	1	FACE-TO FACE
Reason for Request:	Understanding toxicology and success in toxicology courses demands a strong knowledge of topics related to the behavior of chemicals. Because toxic responses are based upon the amount of chemicals present in the system, the ability to deal with quantitative relationships is essential. Many students in toxicology and related courses struggle with the chemical knowledge and skills demanded in toxicology courses and can benefit from additional training offered by this course.		

ERHS 535	ERHS 535: R Programming for Research	3	FACE-TO-FACE
Reason for Request:	The R programming language is a powerful and free language for data-related research. It is very popular within the statistics and biostatistics communities and includes add-on packages from this community for sophisticated, cutting-edge statistical methods. Further, it has powerful graphing capabilities, which has made it popular for creating graphics at places like the New York Times. This course will teach students conducting data-related research how to use this tool in their own projects.		

MIP 766	MIP 766: Cytopathology--Clinical Pathology	1	FACE-TO-FACE
Reason for Request:	This one credit course will be similar to Seminar - Clinical Pathology (MIP 792E) in that it will provide a focused discussion of cytologic samples. However, MIP 792E is a course for clinical pathology residents which offers advanced discussion of difficult cases by many clinical pathologists. The goal of MIP 766 is to improve a student's basic cytology skills through discussion of Veterinary Teaching Hospital cases that were submitted to the Diagnostic Medical Center during the previous week and will require students to give their opinion about the cases. The cases are expected to provide real-world exposure to all outcomes specified in the learning objectives. In addition to showing the microscopic appearance of the cytology sample and asking students to work through the case to arrive at a cytologic diagnosis; case history, all diagnostic results, and case outcome will be discussed. As is appropriate for a course that challenges students to voice and justify their medical opinion, students will be graded as pass/fail based upon their attendance, preparation of case information, and participation in discussions.		

Major Change to Courses

Agricultural Sciences

ANEQ 420	ANEQ 420 ~~520~~: Applied Comparative Nutrition: Computerized Diet Formulation	3	FACE-TO-FACE
Reason for Request:	Diet formulation expertise is an important skill for undergraduate students interested in pursuing careers in animal nutrition. Currently ANEQ320 and ANEQ345 offer only an introduction to feed formulation. Changes are proposed to ANEQ520 that would offer the course as a 400-level upper-division elective and would provide intensive instruction in diet formulation for livestock species using sophisticated feed formulation computer software. Feed formulation knowledge and the ability to operate feed formulation software will provide graduates with a significant advantage as they pursue careers in nutrition or the feed industry.		

Business

ACT 311	ACT 311: Intermediate Accounting I	4~~3~~	FACE-TO-FACE
Reason for Request:	The additional credit is necessary to create a recitation section to go along with ACT 311. The need for a recitation is two-fold. One, the recitation section will allow in-depth coverage and review of the accounting cycle. Two, the recitation section will provide applied Excel learning and projects. There has been discussion of a general need for a “bridge” course for our accounting majors to fill a knowledge gap on the accounting cycle. Our students start with ACT210 – Introduction to Financial Accounting course which is required of all COB students, but they do not get enough detail and repetition in that course to be ready for our first major courses. Rather than create a separate standalone course (and potentially delay graduation), the additional credit hour will allow for the creation of a recitation section which will be problem-based to fill the knowledge gap. There also has been discussion of incorporating Excel into major courses as BUS150 is redesigned. The second reason for the recitation is to meet this need of applied Excel skills.		

BUS 220	BUS 220: Ethics in Contemporary Organizations	3	FACE-TO-FACE/ ONLINE
Reason for Request:	BUS 220 is in high demand and we have unusual long waiting lists despite the fact that we are offering up to 9 sections per semester. The online course will provide an additional option for students to take this required core class and allows for more flexibility for students to include the course into their overall schedule.		

Liberal Arts

ANTH 373	ANTH 373: Human Evolution	3	FACE-TO-FACE/ ONLINE
Reason for Request:	This course expands options for students completing the online anthropology major.		
ANTH 545	ANTH 545: Global Mental Health—Theory and Method~~: Theory and Method~~	4~~3~~	FACE-TO-FACE
Reason for Request:	The new credit hour distribution better captures the class organization, with the 3-credit main seminar accompanied by a 1-credit lab.		

Natural Resources

FW 696	FW 696~~B~~: Group Study in FWCB ~~:Wildlife Biology~~	1-18	FACE-TO-FACE/ ONLINE
Reason for Request:	This change drops the "B" component, which was specifically for wildlife biology and simply creates FW 696. The goal is to consolidate the current group study course offerings of FW 696A and FW 696B into one offering; a change that is necessary because our separate degrees in fishery biology and wildlife biology were combined into the current Fish, Wildlife, and Conservation Biology in the recent past for all our graduate degrees (Plan A & B M.S., Plan C Masters, and PhD). A separate request will drop the FW 696A offering. The change will also allow for online delivery of FW 696, especially for our Online Plan C Masters in FWCB.		

New Programs

College of Agricultural Sciences **Effective Fall 2016**
Department of Animal Sciences
Undergraduate Certificate in Animal Nutrition Certificate in Animal Nutrition

Reason for Request: The Program of Study for the BS degree in Animal Science is being modified to provide majors with greater flexibility in use of upper division electives, allowing them to prepare for career paths that require specialized knowledge in particular disciplines of Animal Science or other related areas of study. Two new elective categories (Science Electives and Advanced Electives) have been created and the new program is designed to interface with a series of undergraduate certificates that will guide students in selective use of upper division elective credits. The proposed Animal Nutrition Certificate allows students to gain in-depth knowledge of principles of feeding and nutritional management of animals.

Code	Title	Credits
ANEQ 345	Principles of Nutrition: Equine Applications	3
ANEQ 476	Feedlot Systems	3
ANEQ 420	Course ANEQ 420 Not Found	3
ANEQ 487A or ANEQ 495	Internship: Animal Independent Study	Var.
Select One Course from the Following:		
CHEM 245	Fundamentals of Organic Chemistry	4
CHEM 335	Introduction to Analytical Chemistry	3
CHEM 345	Organic Chemistry I	4
Program Total Credits		**13-14**

College of Agricultural Sciences **Effective Fall 2016**
Department of Animal Sciences
Undergraduate Certificate in Meat Science Certificate in Meat Science

Reason for Request: The Program of Study for the BS degree in Animal Science is being modified to provide majors with greater flexibility in use of upper division electives, allowing them to prepare for career paths that require specialized knowledge in particular disciplines of Animal Science or other related areas of study. Two new elective categories (Science Electives and Advanced Electives) have been created and the new program is designed to interface with a series of undergraduate certificates that will guide students in selective use of upper division elective credits. The proposed Meat Science Certificate allows students to gain in-depth knowledge of principles of meat science, product quality, and food safety.

Code	Title	Credits
ANEQ 450	Course ANEQ 450 Not Found	3
ANEQ 362	Advanced Meat Product Evaluation	1
ANEQ 460	Meat Safety	2
ANEQ 470	Meat Processing Systems	4
ANEQ 487A or ANEQ 495	Internship: Animal Independent Study	Var.
ANEQ 496	Group Study	Var.
Program Total Credits		**12**

College of Business **Effective Spring 2016**
Department of Marketing
Undergraduate Certificate in Customer Experience Management : Certificate in Customer Experience Management

Reason for Request: Marketing is a very broad discipline and we are offering this certificate with the intent of helping/encouraging students to select electives in a more strategic manner, such that electives selected (when opting for this certificate) will prepare students for a career in markets that focus on providing consumers with positive experiences (e.g., hospitality, retailing).

Additional coursework may be required due to prerequisites.

Code	Title	Credits
MKT 366	Services Marketing	3
MKT 370	Digital Marketing	3
MKT 360 or MKT 367	Retailing Sports Marketing	3
Program Total Credits		**9**

College of Business **Effective Spring 2016**
Department of Marketing
Undergraduate Certificate in Marketing Communication and Branding
Certificate in Marketing Communication and Branding

Reason for Request:	Marketing is a very broad discipline and we are offering this certificate with the intent of helping/encouraging students to select electives in a more strategic manner, such that electives selected (when opting for this certificate) will prepare students for a career in branding and marketing communications. In particular, students completing this certificate could pursue employment at an ad agency or an agency specializing in branding, digital marketing, or sales promotion. Students would also be well prepared to work as a marketing communications specialist for a wide variety of businesses.

Additional coursework may be required due to prerequisites.

Code	Title	Credits
MKT 320	Integrated Marketing Communications	3
MKT 315	Marketing Communication Design	3
MKT 370	Digital Marketing	3
Program Total Credits		**9**

College of Business **Effective Spring 2016**
Department of Marketing
Undergraduate Certificate in Strategic Marketing Certificate in Strategic Marketing

Reason for Request:	Marketing is a very broad discipline and we are offering this certificate with the intent of helping/encouraging students to select electives in a more strategic manner, such that electives selected (when opting for this certificate) will prepare students for a career in corporate marketing management. For example, this set of electives would be a good combination for students who are most interesting in developing and implementing marketing strategies/tactics for a medium to large-sized company such as Otter Box, HP, or Waterpik.

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Select three courses from the following:		
MKT 320	Integrated Marketing Communications	3
MKT 330	Business Customer Relationships	3
MKT 440	Pricing and Financial Analysis in Marketing	3
MKT 364	Product Development and Management	3
Program Total Credits		**9**

Major Change to Curricula

College of Engineering **Effective Spring 2016**
BS in Biomedical Engineering with CB
Dual Degree Program: Biomedical Engineering and Chemical and Biological Engineering CBEG-BMEC-BS

Reason for Request: The Biomedical Engineering combined with Chemical and Biological Engineering (BME-CBE) program includes full degrees in both BME and CBE. The CBE Department is changing its B.S. curriculum. This request will allow the BME-CBE program to include the same requirements as the CBE B.S. program.
The reasoning behind the CBE changes is that, owing to the importance of biological engineering and MATLAB in the CBE curriculum, a new Biological Engineering course (CBE 205) and a new MATLAB course (CBE 160) have been added. To make these changes, a 'part 2' introductory CBE course (CBE 102) has been dropped, and other adjustments made to maintain the current number of credits in the program.

FRESHMAN			
		AUCC	**CREDITS**
BIOM 101	Introduction to Biomedical Engineering		3
CBE 101	Chemical and Biological Engineering I		3
~~**CBE 102**~~	~~Chemical and Biological Engineering II~~	~~-~~	~~3~~
CBE 160	MATLAB for Chemical and Biological Eng	-	1
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CHEM 113	General Chemistry II		3
~~**CHEM 114**~~	~~General Chemistry Lab II~~	~~-~~	~~1~~
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	4
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
Additional Requirements for Graduation[1]			0
	Total Credits		32~~31~~
SOPHOMORE			
CBE 201	Material and Energy Balances		3
CBE 205	Introduction to Biological Engineering	-	3
CBE 210	Thermodynamic Process Analysis		3
CHEM 114	General Chemistry Lab II	-	1
CHEM 341	Modern Organic Chemistry I		3
CHEM 343	Modern Organic Chemistry II		3
CHEM 344	Modern Organic Chemistry Laboratory		2
CO 150	College Composition (GT-CO2)	1A	3
~~**LIFE 102**~~	~~Attributes of Living Systems (GT-SC1)~~	~~3A~~	~~4~~
MATH 261	Calculus for Physical Scientists III		4

MATH 340	Introduction to Ordinary Differential Equations		4
PH 142	Physics for Scientists and Engineers II (GT-SC1)	3A	5
Additional Requirements for Graduation[1]			0
	Total Credits		**34**
JUNIOR			
BC 351	Principles of Biochemistry		4
BIOM 300	Problem-Based Learning Biomedical Engr Lab		4
~~BIOM 330~~	~~Transport Phenomena in Biomedical Engineering~~	~~-~~	~~3~~
BMS 300	Principles of Human Physiology		4
CBE 310	Molecular Concepts and Applications		3
CBE 320	Chemical and Biological Reactor Design		3
CBE 330	Process Simulation		3
CBE 331	Momentum Transfer and Mechanical Separations		3
CBE 332	Heat and Mass Transfer Fundamentals		3
~~CBE 333~~	~~Chemical and Biological Engineering Lab I~~	~~-~~	~~2~~
CBE 493	Professional Development Seminar	-	1
LIFE 210	Introductory Eukaryotic Cell Biology		3
Social and Behavioral Sciences		3C	3
Additional Requirements for Graduation[1]			0
	Total Credits		**34~~35~~**
SENIOR			
~~BIOM 400~~	~~Course BIOM 400 Not Found~~	~~-~~	~~3~~
~~CBE 430~~	~~Process Control and Instrumentation~~	~~-~~	~~3~~
BIOM 330	Transport Phenomena in Biomedical Engineering	-	3
BIOM 422	Kinetics of Biomolecular and Cellular Systems	-	3
CBE 333	Chemical and Biological Engineering Lab I		2
CBE 442	Separation Processes		4
CBE 443	Chemical and Biological Engineering Lab II		2
CBE 451	Chemical and Biological Engineering Design I	-	3
MECH 262	Engineering Mechanics		4
STAT 315	Statistics for Engineers and Scientists		3
Arts and Humanities		3B	3
Historical Perspectives		3D	3
~~Social and Behavioral Sciences~~		~~3C~~	~~3~~
~~Technical Elective[2]~~		~~-~~	~~3~~
Additional Requirements for Graduation[1]			0
	Total Credits		**30~~31~~**

FIFTH YEAR			
BIOM 486A	Biomedical Design Practicum: Capstone Design I	4A,4B,4C	4
BIOM 486B	Biomedical Design Practicum: Capstone Design II	4A,4B,4C	4
~~CBE 451~~	~~Chemical and Biological Engineering Design I~~	~~-~~	~~3~~
~~CBE 493~~	~~Professional Development Seminar~~	~~-~~	~~1~~
CBE 430	Process Control and Instrumentation	-	3
Advanced Writing		2	3
Arts and Humanities		3B	3
Global and Cultural Awareness		3E	3
~~BIOM Technical Elective[3]~~		~~-~~	~~3~~
BME Technical Elective[2]			3
CBE Technical Elective[3]		-	5
Additional Requirements for Graduation[1]			0
		Total Credits	**28**
	Program Total Credits:		**158**

Approved BME Technical Electives for BME-CBE BS Program

Code	Title	Credits
Select 3 credits from the following:		
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BC 404	Comprehensive Biochemistry Laboratory	2
BC 411	Physical Biochemistry	4
BC 463	Molecular Genetics	3
BC 465	Molecular Regulation of Cell Function	3
BC 565	Molecular Regulation of Cell Function	4
BIOM 441	Biomechanics and Biomaterials	3
BIOM 470	Biomedical Engineering	3
BIOM 476A	Biomedical Clinical Practicum I	2
BIOM 476B	Biomedical Clinical Practicum II	4
BIOM 504	Fundamentals of Biochemical Engineering	3
BIOM 525	Cell and Tissue Engineering	3
BIOM 526	Biological Physics	3
BIOM 531	Materials Engineering	3
BIOM 533	Biomolecular Tools for Engineers	3
BIOM 543	Membranes for Biotechnology and Biomedicine	3
BIOM 573	Structure and Function of Biomaterials	3

Code	Title	Credits
BMS 301	Human Gross Anatomy	5
BMS 302	Laboratory in Principles of Physiology	2
BMS 325	Cellular Neurobiology	3
BMS 345	Functional Neuroanatomy	4
BMS 405	Nerve and Muscle-Toxins, Trauma and Disease	3
BMS 420	Cardiopulmonary Physiology	3
BMS 430	Endocrinology	3
BMS 450	Pharmacology	3
BMS 500	Mammalian Physiology I	4
BMS 501	Mammalian Physiology II	4
BMS 503	Developmental Neurobiology	3
BMS 505	Neuronal Circuits, Systems and Behavior	3
BZ 311	Developmental Biology	4
BZ 350	Molecular and General Genetics	4
BZ 476	Genetics of Model Organisms	3
CBE 543	Membranes for Biotechnology and Biomedicine	3
CHEM 334	Quantitative Analysis Laboratory	1
CHEM 335	Introduction to Analytical Chemistry	3
CHEM 433	Clinical Chemistry	3
CHEM 539A	Principles of NMR and MRI: Basic NMR Principles	1
CHEM 539B	Principles of NMR and MRI: NMR Diffusion Measurements-2D NMR and MRI	1
CHEM 539C	Principles of NMR and MRI: Advanced NMR and MRI Techniques	1
CM 501	Advanced Cell Biology	4
CM 502	Techniques in Molecular & Cellular Biology	2
ECE 569	Micro-Electro-Mechanical Devices	3
ERHS 450	Introduction to Radiation Biology	3
ERHS 502	Fundamentals of Toxicology	3
ERHS 510	Cancer Biology	3
HES 307	Biomechanical Principles of Human Movement	3
HES 319	Neuromuscular Aspects of Human Movement	3
HES 403	Physiology of Exercise	4
HES 405	Exercise Testing Instrumentation	2
HES 476	Exercise and Chronic Disease	3
MATH 455	Mathematics in Biology and Medicine	3
MECH 543	Biofluid Mechanics	3
MECH 569	Micro-Electro-Mechanical Devices	3
MIP 300	General Microbiology	3

Code	Title	Credits
MIP 302	General Microbiology Laboratory	2
MIP 342	Immunology	4
MIP 343	Immunology Laboratory	2
MIP 351	Medical Bacteriology	3
MIP 352	Medical Bacteriology Laboratory	3
MIP 420	Medical and Molecular Virology	4
MIP 436	Industrial Microbiology	4
MIP 443	Microbial Physiology	4
MIP 450	Microbial Genetics	3
MIP 576	Bioinformatics	3
NB 500	Readings in Cellular Neurobiology	1
NB 501	Cellular and Molecular Neurophysiology	2
NB 503	Developmental Neurobiology	3
NB 505	Neuronal Circuits, Systems and Behavior	3

Approved CBE Technical Electives for BME-CBE BS Program

Code	Title	Credits
Select 5 credits from the following:		
AA 301	Astrophysics I	5
AA 302	Astrophysics II	5
AA 303	Astrophysics III	5
ATS 555	Air Pollution	3
ATS 560	Air Pollution Measurement	2
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BC 404	Comprehensive Biochemistry Laboratory	2
BC 463	Molecular Genetics	3
BC 465	Molecular Regulation of Cell Function	3
BIOM 470	Biomedical Engineering	3
BIOM 476A	Biomedical Clinical Practicum I	2
BIOM 476B	Biomedical Clinical Practicum II	4
BIOM 525	Cell and Tissue Engineering	3
BIOM 532	Material Issues in Mechanical Design	3
BIOM 533/CIVE 533	Biomolecular Tools for Engineers	3
BIOM 570	Bioengineering	3
BIOM 573	Structure and Function of Biomaterials	3
BIOM 671/MECH 671	Orthopedic Tissue Biomechanics	3

Code	Title	Credits
BMS 301	Human Gross Anatomy	5
BMS 302	Laboratory in Principles of Physiology	2
BMS 360	Fundamentals of Physiology	4
BMS 420	Cardiopulmonary Physiology	3
BMS 430	Endocrinology	3
BMS 450	Pharmacology	3
BMS 500	Mammalian Physiology I	4
BMS 501	Mammalian Physiology II	4
BSPM 302	Applied and General Entomology	2
BSPM 303A	Entomology Laboratory: General	2
BSPM 361	Elements of Plant Pathology	3
BSPM 450	Molecular Plant-Microbe Interaction	3
BZ 310	Cell Biology	4
BZ 311	Developmental Biology	4
BZ 346	Population and Evolutionary Genetics	3
BZ 348	Theory of Population and Evolutionary Ecology	4
BZ 350	Molecular and General Genetics	4
BZ 415	Marine Biology	4
BZ 440	Plant Physiology	3
BZ 441	Plant Physiology Laboratory	2
BZ 450	Plant Ecology	4
BZ 476	Genetics of Model Organisms	3
BZ 572	Phytoremediation	3
CBE 406	Introduction to Transport Phenomena	3
CBE 495	Independent Study	1-18
CBE 501	Chemical Engineering Thermodynamics	3
CBE 502	Advanced Reactor Design	3
CBE 503	Transport Phenomena Fundamentals	3
CBE 504	Fundamentals of Biochemical Engineering	3
CBE 514	Polymer Science and Engineering	3
CBE 521	Mathematical Modeling for Chemical Engineers	3
CBE 522	Bioseparation Processes	3
CBE 524	Bioremediation	1
CBE 540	Advanced Biological Wastewater Processing	3
CBE 543	Membranes for Biotechnology and Biomedicine	3
CHEM 261	Fundamentals of Inorganic Chemistry	3
CHEM 334	Quantitative Analysis Laboratory	1

Code	Title	Credits
CHEM 335	Introduction to Analytical Chemistry	3
CHEM 431	Instrumental Analysis	4
CHEM 433	Clinical Chemistry	3
CHEM 440	Advanced Organic Chemistry Laboratory	2
CHEM 461	Inorganic Chemistry	3
CHEM 462	Inorganic Chemistry Laboratory	2
CHEM 511	Solid State Chemistry	3
CHEM 515	Polymer Chemistry	3
CHEM 517	Chemistry of Electronic Materials	3
CHEM 537	Electrochemical Methods	3
CHEM 539A	Principles of NMR and MRI: Basic NMR Principles	1
CHEM 539B	Principles of NMR and MRI: NMR Diffusion Measurements-2D NMR and MRI	1
CHEM 539C	Principles of NMR and MRI: Advanced NMR and MRI Techniques	1
CHEM 543	Structure/Mechanisms in Organic Chemistry	3
CHEM 547	Physical Organic Chemistry	3
CHEM 551	Organometallic Chemistry	3
CHEM 565	Inorganic Mechanisms	3
CHEM 569	Chemical Crystallography	3
CHEM 570	Chemical Bonding	3
CHEM 571A	Quantum Chemistry: Foundations	2
CHEM 571B	Quantum Chemistry: Electronic Structure	1
CHEM 575	Fundamentals of Chemical Thermodynamics	1
CHEM 576	Statistical Mechanics	2
CHEM 577	Surface Chemistry	3
CHEM 579	Chemical Kinetics	3
CIVE 260	Engineering Mechanics-Statics	3
CIVE 261	Engineering Mechanics-Dynamics	3
CIVE 322	Basic Hydrology	3
CIVE 360	Mechanics of Solids	3
CIVE 401	Hydraulic Engineering	3
CIVE 413	Environmental River Mechanics	3
CIVE 423	Groundwater Engineering	3
CIVE 425	Soil and Water Engineering	3
CIVE 438	Environmental Engineering Concepts	3
CIVE 440	Nonpoint Source Pollution	3
CIVE 504	Wind Engineering	3
CIVE 520	Physical Hydrology	3

Code	Title	Credits
CIVE 531	Groundwater Hydrology	3
CIVE 538	Aqueous Chemistry	3
CIVE 540	Advanced Biological Wastewater Processing	3
CIVE 560	Advanced Mechanics of Materials	3
CM 501	Advanced Cell Biology	4
CM 502	Techniques in Molecular & Cellular Biology	2
CS 160	Foundations in Programming	4
CS 161	Object-Oriented Problem Solving	4
CS 200	Algorithms and Data Structures	4
CS 270	Computer Organization	4
CS 420	Introduction to Analysis of Algorithms	4
ECE 204	Introduction to Electrical Engineering	3
ENGR 298	Undergraduate Research	1-3
ENGR 498	Undergraduate Research	1-3
ENGR 510	Engineering Optimization: Method/Application	3
ERHS 446	Environmental Toxicology	3
ERHS 448	Environmental Contaminants: Exposure and Fate	3
ERHS 450	Introduction to Radiation Biology	3
ERHS 502	Fundamentals of Toxicology	3
ERHS 510	Cancer Biology	3
ERHS 547	Equipment and Instrumentation	3
F 311	Forest Ecology	3
FTEC 447	Food Chemistry	2
FTEC 572	Food Biotechnology	2
GEOL 150	Physical Geology for Scientists and Engineers	4
GEOL 454	Geomorphology	4
HES 307	Biomechanical Principles of Human Movement	3
HES 319	Neuromuscular Aspects of Human Movement	3
HES 403	Physiology of Exercise	4
LIFE 201B	Introductory Genetics: Molecular/Immunological/Developmental (GT-SC2)	3
LIFE 202B	Introductory Genetics Recitation: Molecular	1
LIFE 203	Introductory Genetics Laboratory	2
LIFE 212	Introductory Cell Biology Laboratory	2
LIFE 320	Ecology	3
MATH 317	Advanced Calculus of One Variable	4
MATH 332	Partial Differential Equations	3
MATH 348	Theory of Population and Evolutionary Ecology	4

Code	Title	Credits
MATH 366	Introduction to Abstract Algebra	3
MATH 369	Linear Algebra I	3
MATH 405	Introduction to Number Theory	3
MATH 417	Advanced Calculus I	3
MATH 418	Advanced Calculus II	3
MATH 419	Introduction to Complex Variables	3
MATH 460	Information and Coding Theory	3
MATH 469	Linear Algebra II	3
MATH 501	Combinatorics I	3
MATH 502	Combinatorics II	3
MATH 510	Linear Programming and Network Flows	3
MATH 520	Nonlinear Programming	3
MATH 525	Optimal Control	3
MATH 530	Mathematics for Scientists and Engineers	4
MATH 532	Mathematical Modeling of Large Data Sets	3
MATH 545	Partial Differential Equations I	3
MATH 546	Partial Differential Equations II	3
MECH 307	Mechatronics and Measurement Systems	4
MECH 331	Introduction to Engineering Materials	4
MECH 431	Metals and Alloys	3
MECH 437	Internal Combustion Engines	3
MECH 460	Aeronautics	3
MECH 463	Building Energy Systems	3
MECH 468	Space Propulsion and Power Engineering	3
MECH 530	Advanced Composite Materials	3
MECH 531	Materials Engineering	3
MECH 558	Combustion	3
MECH 575	Solar and Alternative Energies	3
MIP 300	General Microbiology	3
MIP 302	General Microbiology Laboratory	2
MIP 334	Food Microbiology	3
MIP 335	Food Microbiology Laboratory	2
MIP 342	Immunology	4
MIP 343	Immunology Laboratory	2
MIP 350	Microbial Diversity	3
MIP 351	Medical Bacteriology	3
MIP 352	Medical Bacteriology Laboratory	3

Code	Title	Credits
MIP 420	Medical and Molecular Virology	4
MIP 432	Microbial Ecology	3
MIP 433	Microbial Ecology Laboratory	1
MIP 436	Industrial Microbiology	4
MIP 443	Microbial Physiology	4
MIP 450	Microbial Genetics	3
MIP 576	Bioinformatics	3
MIP 578	Genetics of Natural Populations	4
NR 300	Biological Diversity	3
NR 322	Introduction to Geographic Information Systems	4
NR 323	Remote Sensing and Image Interpretation	3
PH 314	Introduction to Modern Physics	4
PH 315	Modern Physics Laboratory	2
PH 341	Mechanics	4
PH 351	Electricity and Magnetism	4
PH 353	Optics and Waves	4
PH 361	Physical Thermodynamics	3
PH 451	Introductory Quantum Mechanics I	3
PH 452	Introductory Quantum Mechanics II	3
PH 521	Introduction to Lasers	3
PH 522	Introductory Laser Laboratory	1
PH 531	Introductory Solid State Physics	3
PH 541	Classical Physics	3
PH 551	Modern Physics	3
PH 561	Elementary Particle Physics	3
PH 571	Mathematical Methods for Physics I	3
PH 572	Mathematical Methods for Physics II	3
SOCR 240	Introductory Soil Science	4
SOCR 330	Principles of Genetics	3
SOCR 331	Genetics Laboratory	1
SOCR 455	Soil Microbiology	3
SOCR 456	Soil Microbiology Laboratory	1
SOCR 467	Soil and Environmental Chemistry	3
SOCR 470	Soil Physics	3
SOCR 471	Soil Physics Laboratory	1
SOCR 478	Environmental Soil Sciences	3
SOCR 479	Environmental Soil Science Laboratory	1

Code	Title	Credits
STAT 305	Sampling Techniques	3
STAT 340	Multiple Regression Analysis	3
STAT 350	Design of Experiments	3
STAT 372	Data Analysis Tools	3
STAT 420	Probability and Mathematical Statistics I	3
STAT 430	Probability and Mathematical Statistics II	3
STAT 511	Design and Data Analysis for Researchers I	4
STAT 512	Design and Data Analysis for Researchers II	4

[1] Students are required to participate in the Professional Learning Institute (PLI) program as a requirement for graduation. The program consists of eleven PLI workshops distributed by focus areas as follows: Global and Cultural Diversity (2 workshops), Innovation (2 workshops), Leadership (2 workshops), Civic and Public Engagement (2 workshops), and Ethics (3 workshops). Each workshop is between 1-2 hours long and no outside preparation is required to attend any of the workshops. Attendance at the required workshops may be spread over the student's five-year program.

[2] Select a total of 3~~6~~ credits from Approved BME Technical Electives for BME-CBE Program. ~~courses with the BIOM or ECE subject code.~~

[3] Select 5~~3~~ credits from Approved CBE Technical Electives for BME-CBE Program. ~~courses with the BIOM subject code.~~

College of Health & Human Sciences **Effective Fall 2016**
Department of Construction Management
Master of Science in Construction Management, Plan A CTMG-MS

Reason for Request: The Department of Construction Management is in the process of revamping the curriculum for its graduate (MS) program. This program is developed based on the discussions the graduate committee had, an external report on the assessment of the graduate program, graduate student feedback, and interviews of the department's faculty involved in the graduate program (either as teaching graduate-level courses and/or advising students). The result is a program that is more focused on research, especially in the five required courses.

Core Requirements - Required of All Students		
~~**CON 500**~~ ~~or **EDRM 600**~~	~~Models of Disciplined Inquiry~~ ~~Introduction to Research Methods~~	~~3~~
~~**CON 560**~~	~~Applied Project Management~~	~~3~~
~~**CON 562**~~	~~Issues and Trends in Construction Management~~	~~3~~
CON 502	Course CON 502 Not Found	3
CON 503	Course CON 503 Not Found	3
CON 511	Course CON 511 Not Found	3
CON 512	Course CON 512 Not Found	3
CON 521	Course CON 521 Not Found	3
Thesis		
CON 699	Thesis	6~~3~~
~~**Construction Management and Information Systems Emphasis**~~		

~~Emphasis Area Required Courses:~~		~~6~~
~~CON 561~~	~~Applied Productivity Improvement~~	
~~CON 565~~	~~Legal Aspects of Construction Process~~	
~~Emphasis Area Electives:~~		~~12~~
~~Sustainable Building (SB) Emphases~~		
~~Emphasis Area Required Courses:~~		~~9~~
~~CON 476~~	~~Sustainable Practice-Design and Construction~~	
~~CON 571~~	~~Facility Planning and Management~~	
~~CON 576~~	~~Sustainable Technology in Built Environments~~	
~~Emphasis Area Electives: [1]~~		~~9~~
Electives [1]		12
Program Total Credits		33~~30~~

A minimum of 33 ~~30~~ credits are required to complete this program.

[1] With approval by advisor. A minimum of 1 CON graduate elective course (which cannot be CON 695) is required. A maximum of 3 credits of CON 695 are allowed.

College of Health & Human Sciences **Effective Fall 2016**
Department of Construction Management
Master of Science in Construction Management, Plan B CTMG-MS

Reason for Request: The Department of Construction Management is in the process of revamping the curriculum for its graduate (MS) program. This program is developed based on the discussions the graduate committee had, an external report on the assessment of the graduate program, graduate student feedback, and interviews of the department's faculty involved in the graduate program (either as teaching graduate-level courses and/or advising students). The result is a program that is more focused on research, especially in the five required courses.

Core Requirements - Required of All Students		
~~CON 500~~ ~~or EDRM 600~~	~~Models of Disciplined Inquiry~~ ~~Introduction to Research Methods~~	~~3~~
~~CON 560~~	~~Applied Project Management~~	~~3~~
~~CON 562~~	~~Issues and Trends in Construction Management~~	~~3~~
CON 502	Course CON 502 Not Found	3
CON 503	Course CON 503 Not Found	3
CON 511	Course CON 511 Not Found	3
CON 512	Course CON 512 Not Found	3
CON 521	Course CON 521 Not Found	3
Research		
CON 698	Research	3
~~Construction Management and Information Systems Emphasis~~		

~~Emphasis Area Required Courses:~~		~~6~~
~~CON 561~~	~~Applied Productivity Improvement~~	
~~CON 565~~	~~Legal Aspects of Construction Process~~	
~~Emphasis Area Electives:~~		~~15~~
~~Sustainable Building (SB) Emphases~~		
~~Emphasis Area Required Courses:~~		~~9~~
~~CON 476~~	~~Sustainable Practice-Design and Construction~~	
~~CON 571~~	~~Facility Planning and Management~~	
~~CON 576~~	~~Sustainable Technology in Built Environments~~	
~~Emphasis Area Electives:~~ [1]		~~12~~
Electives [1]		18
Program Total Credits		36~~33~~

A minimum of 36 ~~33~~ credits are required to complete this program.

[1] With approval by advisor. A minimum of 2 CON graduate elective courses (which cannot be CON 695) are required. A maximum of 3 credits of CON 695 are allowed.

College of Liberal Arts **Effective Fall 2016**
Department of English
BA in English
Writing, Rhetoric and Literacy Concentration ENGL-WRIZ-BA

Reason for Request: We are re-naming our undergraduate concentration for three reasons that reflect trends at both the national and local levels.

First, the field of rhetoric and composition has begun to place a greater emphasis on community literacy and writing practices beyond the academy, as have we. Broadening the concentration's title to Writing, Rhetoric and Literacy will more clearly communicate our emphasis and better position concentrators who wish to go on to graduate school or work as writers and literacy specialists in the community. Second, the name change will make our concentration's title more accurate and representative of new faculty hires' strengths in the areas of digital literacies and public rhetorics. Third, the name change will clarify for English majors and external audiences how the Writing, Rhetoric and Literacy Concentration differs from other concentrations in English (including Creative Writing), particularly in its emphasis on community and civic engagement through advanced study of public writing, literacy practices and rhetorical theory.

For graduation, an English major must attain a minimum grade point average of 2.000 in upper-division composition and English courses.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
E 240	Introduction to Poetry		3
SPCM 200	Public Speaking		3
Arts and Humanities[1]		3B	6

Biological and Physical Sciences		3A	7
Mathematics		1B	3
Electives			6
	Total Credits		**31**
SOPHOMORE			
Select one course from the following:		-	
CO 300	Writing Arguments (GT-CO3)	2	3
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	2	3
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	3
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)	2	3
CO 301D	Writing in the Disciplines: Education (GT-CO3)	2	3
CO 302	Writing in Digital Environments (GT-CO3)	2	3
E 270	Introduction to American Literature (GT-AH2)	3B	3
Select one from the following:			
E 276	Survey of British Literature I (GT-AH2)	3B	3
E 277	Survey of British Literature II (GT-AH2)	3B	3
Philosophy[2]			3
Global and Cultural Awareness		3E	3
Historical Perspectives		3D	3
Social and Behavioral Sciences		3C	3
Liberal Arts/History Elective[3]			3
Electives			5
	Total Credits		**29**
JUNIOR			
~~Select one course from the following:~~		~~-~~	~~3~~
~~**CO 300**~~	~~Writing Arguments (GT-CO3)~~	~~2~~	~~-~~
~~**CO 301A**~~	~~Writing in the Disciplines: Arts and Humanities (GT-CO3)~~	~~2~~	~~-~~
~~**CO 301B**~~	~~Writing in the Disciplines: Sciences (GT-CO3)~~	~~2~~	~~-~~
~~**CO 301C**~~	~~Writing in the Disciplines: Social Sciences (GT-CO3)~~	~~2~~	~~-~~
~~**CO 301D**~~	~~Writing in the Disciplines: Education (GT-CO3)~~	~~2~~	~~-~~
CO 402	Principles of Digital Rhetoric and Design	-	3
E 341	Literary Criticism and Theory	4A,4B	3
Second field[4]			6
Upper-Division English/Composition Electives (See list below)			6
Electives			12

	Total Credits		**30**
SENIOR			
CO 401	Writing and Style		3
E 406	Topics in Literacy		3
Select one course from the following:			
E 460	Chaucer	4C	3
E 465	Topics in Literature and Language	4C	3
E 470	Individual Author	4C	3
Second field[4]			6
Upper-Division English/Composition Electives (See list below)			9
Electives[5]			6
	Total Credits		**30**
	Program Total Credits:		**120**

Upper-Division English/Composition Electives

Select a total of 15 credits of upper-division electives in E and CO subject code courses.

Code	Title	Credits
Designated Writing		
Select one from the following:		
CO 300	Writing Arguments (GT-CO3)	
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	3
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	3
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)	3
CO 301D	Writing in the Disciplines: Education (GT-CO3)	3
E 311C	Intermediate Creative Writing: Nonfiction	3
E 403	Writing the Environment	3
E 412C	Creative Writing Workshop: Nonfiction	3
Writing Theory and Pedagogy		
Select one from the following:		
E 402	Teaching Composition	3
E 406	Topics in Literacy	3
E 501	Theories of Writing	3
E 502	Language, Literacy, and Learning	3
E 526	Teaching English as a Foreign/Second Language	3
Literature		
Select 3 credits in literature courses		3
Select 6 credits from any upper-division writing, literature, theory, and/or language courses		6

[1] Excludes E subject code courses.

[2] Select from the list of PHIL courses on English Department checksheet.

[3] Select either one other course from the list of courses in All-University Core Curriculum (AUCC) 3D or one from the list of courses on the English Department checksheet.

[4] The department requires majors to complete a second field. This may be met by completing the second semester of the second year of a foreign language or by completing 12 credits of upper-division courses in a coherent field of study outside of English.

[5] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Composition Concentration MUSC-COMZ-BM

Reason for Request: Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I		1
Select one group from the following:[2]~~[1]~~			
Group A:			
MU 172A	Freshman Voice Studio: English/Italian		2
MU 172B	Freshman Voice Studio: German, French		2
Group B:			
Applied Music Instruction - Lower-Division (see list below)[2]~~[1]~~			2-4
Ensemble (see list below)[3]~~[2]~~			2
Historical Perspectives		3D	3
Mathematics		1B	3
Electives[4]~~[3]~~			3-5~~4-6~~

		Total Credits	**30**
SOPHOMORE			
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
Applied Music Instruction - Lower-Division (see list below)[2~~1~~]			2
MU 273	Composition Instruction		2
Ensemble (see list below)[3~~2~~]			2
PSY 100	General Psychology (GT-SS3)	3C	3
Advanced Writing		2	3
Electives[4]			11
		Total Credits	**31**
JUNIOR			
MU 254	Beginning Conducting		2
MU 317	Music Theory V		2
MU 318	Arranging and Orchestration		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
Select one from the following:			
MU 355	Choral Conducting and Literature		2
MU 356	Instrumental Conducting and Literature		2
MU 473	Composition Instruction		4
MU 499	Thesis		1
Ensemble (see list below)[3~~2~~]			2
Arts and Humanities		3B	3
Music Electives			3
Electives[4]			2
		Total Credits	**29**
SENIOR			
MU 417	Counterpoint		3
MU 418	Advanced Orchestration		2
MU 419	Electronic Music Composition		2
MU 471	Recital	4C	1
MU 473	Composition Instruction		4
Ensemble (see list below)[3~~2~~]			2
Biological and Physical Sciences		3A	7
Global and Cultural Awareness		3E	3
Electives[5]			6

	Total Credits	**30**
	Program Total Credits:	**120**

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1

Code	Title	Credits
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

1 Students with previous keyboard experience may test out of MU 150 and replace with one elective credit. ~~First-year voice students take **MU 172A** and **MU 172B**, then **MU 272Q** the second year for 2 semesters. Instrumentalists take **MU 272A**-**MU 272P** or **MU 272R**-**MU 272V** on a major instrument for 2 semesters each of the first 2 years.~~

2 First-year voice students take **MU 172A** and **MU 172B**, then **MU 272Q** the second year for 2 semesters. Instrumentalists take **MU 272A**-**MU 272P**or **MU 272R**-**MU 272V** on a major instrument for 2 semesters each of the first 2 years. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~

3 Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. ~~Voice students take four credits of electives. Instrumentalists take six credits of electives.~~

4 Voice students take three credits of electives. Instrumentalists take five credits of electives. ~~Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).~~

5 Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Music Education Concentration, Choral Option MUSC-MUEZ-BM

Reason for Request: Changes include: 1. adding a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation; 2. Redistributing current classes to move conducting courses in better pedagogical sequence and for a better credit hour balance across semesters while remaining at same number of total credit hours.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music. Music majors concentrating in music education must also complete all required education courses with a minimum grade of C.

FRESHMAN		
	AUCC	CREDITS

CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I	-	1
MU 151	Piano Skills for Music Educators		1
MU 172A	Freshman Voice Studio: English/Italian		2
MU 172B	Freshman Voice Studio: German, French		2
MU 286	Practicum-Music Education		3 ~~1~~
MU *** Ensemble (see list below)[2]~~[1]~~			2
~~**PSY 100**~~	~~General Psychology (GT-SS3)~~	~~3C~~	~~3~~
Arts and Humanties		3B	3
Mathematics		1B	3
	Total Credits		**31**
SOPHOMORE			
EDUC 275	Schooling in the United States (GT-SS3)	3C	3
EDUC 340	Literacy and the Learner		3
MU 152	Piano Skills for Choral Directors		1
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
Select one from the following:			
MU 252A	Instrumental Techniques: Brass		2
MU 252B	Instrumental Techniques: Woodwinds		2
~~**MU 254**~~	~~Beginning Conducting~~	~~-~~	~~2~~
MU 252C	Instrumental Techniques: Strings	-	1
Applied Music Instruction – Lower-Division (see list below)			2
MU *** Ensemble (see list below)[2]~~[1]~~			2
Advanced Writing		2	3
Biological and Physical Sciences		3A	4~~3~~
Historical Perspectives		3D	3
	Total Credits		**32**
JUNIOR			
EDUC 331	Educational Technology and Assessment		2
EDUC 350	Instruction I-Individualization/Management		3
EDUC 386	Practicum-Instruction I		1
EDUC 474	Elementary Music Methods I		2
EDUC 475	Elementary Music Methods II		2

~~MU 252C~~	~~Instrumental Techniques: Strings~~	~~-~~	~~1~~
MU 254	Beginning Conducting	-	2
MU 317	Music Theory V		2
MU 318	Arranging and Orchestration		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
MU 355	Choral Conducting and Literature		2
MU 466	Song Literature		2
Applied Music Instruction – Upper-Division (see list below)			2
MU *** Ensemble (see list below)2~~1~~			2
Biological and Physical Sciences		3A	3~~4~~
	Total Credits		**33**
SENIOR			
EDUC 450	Instruction II-Standards and Assessment		4
EDUC 476	Choral Methods for Secondary Schools		2
EDUC 485A	Student Teaching: Elementary		6
EDUC 485B	Student Teaching: Secondary		6
EDUC 486E	Practicum: Instruction II		1
EDUC 493A	Seminar: Professional Relations		1
MU 425	Jazz Pedagogy		2
MU 467	Vocal Pedagogy		2
MU 471	Recital	4C	1
Applied Music Instruction – Upper-Division (see list below)			1
MU *** Ensemble (see list below)2~~1~~			1
Global and Cultural Awareness		3E	3
	Total Credits		**30**
	Program Total Credits:		**126**

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2

Code	Title	Credits
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Applied Music Instruction - Upper-Division

Code	Title	Credits
MU 472A	Applied Music Instruction: Euphonium	1-2
MU 472B	Applied Music Instruction: French Horn	1-2
MU 472C	Applied Music Instruction: Trombone	1-2
MU 472D	Applied Music Instruction: Trumpet	1-2
MU 472E	Applied Music Instruction: Tuba	1-2
MU 472G	Applied Music Instruction: Harpsichord	1-2
MU 472H	Applied Music Instruction: Organ	1-2
MU 472I	Applied Music Instruction: Piano	1-2
MU 472J	Applied Music Instruction: Percussion	1-2
MU 472K	Applied Music Instruction: Guitar	1-2
MU 472L	Applied Music Instruction: Harp	1-2
MU 472M	Applied Music Instruction: String Bass	1-2
MU 472N	Applied Music Instruction: Viola	1-2
MU 472O	Applied Music Instruction: Violin	1-2
MU 472P	Applied Music Instruction: Violoncello	1-2
MU 472Q	Applied Music Instruction: Voice	1-2
MU 472R	Applied Music Instruction: Bassoon	1-2
MU 472S	Applied Music Instruction: Clarinet	1-2
MU 472T	Applied Music Instruction: Flute	1-2
MU 472U	Applied Music Instruction: Oboe	1-2
MU 472V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and **MU 472A**-**MU 472V**. At least once during the program of study this must be achieved by taking **MU 408** or through another small ensemble experience.~~

[2] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study this must be achieved by taking **MU 408** or through another small ensemble experience.

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Music Education Concentration, Instrumental Option MUSC-MUEZ-BM

Reason for Request: Changes include: 1. adding a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation; 2. Redistributing current classes to move conducting courses in better pedagogical sequence and for a better credit hour balance across semesters while remaining at same number of total credit hours.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music. Music majors concentrating in music education must also complete all required education courses with a minimum grade of C.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I	-	1
MU 151	Piano Skills for Music Educators		1
MU 251	Voice Techniques		1
MU 252B	Instrumental Techniques: Woodwinds		2
Applied Music Instruction – Lower-Division (see list below)[2~~1~~]			2
MU 286	Practicum-Music Education		3~~1~~
MU *** Ensemble (see list below)[3~~2~~]			2
~~**PSY 100**~~	~~General Psychology (GT-SS3)~~	~~3C~~	~~3~~
Arts and Humanties		3B	3
Mathematics		1B	3
	Total Credits		**32**
SOPHOMORE			
EDUC 275	Schooling in the United States (GT-SS3)	3C	3
EDUC 340	Literacy and the Learner		3
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
MU 252A	Instrumental Techniques: Brass		2
MU 252C	Instrumental Techniques: Strings		1
~~**MU 254**~~	~~Beginning Conducting~~	~~-~~	~~2~~
Applied Music Instruction – Lower-Division (see list below)[2~~1~~]			2
MU *** Ensemble (see list below)[3~~2~~]			2
Advanced Writing		2	3
Biological and Physical Sciences		3A	4~~3~~
Historical Perspectives		3D	3
	Total Credits		**31~~32~~**
JUNIOR			
EDUC 331	Educational Technology and Assessment		2
EDUC 350	Instruction I-Individualization/Management		3
EDUC 386	Practicum-Instruction I		1

EDUC 474	Elementary Music Methods I		2
EDUC 475	Elementary Music Methods II		2
MU 254	Beginning Conducting		2
MU 317	Music Theory V		2
MU 318	Arranging and Orchestration		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
MU 356	Instrumental Conducting and Literature		2
Select one from the following:[4]~~[3]~~			
MU 420	Marching Band Techniques		2
MU 421	Orchestral Techniques		2
Applied Music Instruction – Upper-Division (see list below)[2]~~[1]~~			2
MU *** Ensemble (see list below)[3]~~[2]~~			2
Biological and Physical Sciences		3A	3~~4~~
	Total Credits		33~~32~~
SENIOR			
EDUC 450	Instruction II-Standards and Assessment		4
EDUC 477	Instrumental Methods for Secondary Schools		2
EDUC 485A	Student Teaching: Elementary		6
EDUC 485B	Student Teaching: Secondary		6
EDUC 486E	Practicum: Instruction II		1
EDUC 493A	Seminar: Professional Relations		1
MU 252D	Instrumental Techniques: Percussion		1
MU 425	Jazz Pedagogy		2
MU 471	Recital	4C	1
Applied Music Instruction – Upper-Division (see list below)			1
MU *** Ensemble (see list below)[3]~~[2]~~			1
Global and Cultural Awareness		3E	3
Elective[5]~~[4]~~			1
	Total Credits		**30**
	Program Total Credits:		**126**

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2

Code	Title	Credits
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Applied Music Instruction - Upper-Division

Code	Title	Credits
MU 472A	Applied Music Instruction: Euphonium	1-2
MU 472B	Applied Music Instruction: French Horn	1-2
MU 472C	Applied Music Instruction: Trombone	1-2
MU 472D	Applied Music Instruction: Trumpet	1-2
MU 472E	Applied Music Instruction: Tuba	1-2
MU 472G	Applied Music Instruction: Harpsichord	1-2
MU 472H	Applied Music Instruction: Organ	1-2
MU 472I	Applied Music Instruction: Piano	1-2
MU 472J	Applied Music Instruction: Percussion	1-2
MU 472K	Applied Music Instruction: Guitar	1-2
MU 472L	Applied Music Instruction: Harp	1-2
MU 472M	Applied Music Instruction: String Bass	1-2
MU 472N	Applied Music Instruction: Viola	1-2
MU 472O	Applied Music Instruction: Violin	1-2
MU 472P	Applied Music Instruction: Violoncello	1-2
MU 472Q	Applied Music Instruction: Voice	1-2
MU 472R	Applied Music Instruction: Bassoon	1-2

Code	Title	Credits
MU 472S	Applied Music Instruction: Clarinet	1-2
MU 472T	Applied Music Instruction: Flute	1-2
MU 472U	Applied Music Instruction: Oboe	1-2
MU 472V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~Major instrument; two semesters except senior year.~~

[2] Major instrument; two semesters except senior year. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**,**MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. Wind and percussion majors must take **MU 204** twice during their four year program.~~

[3] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**,**MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. Wind and percussion majors must take **MU 204** twice during their four year program. ~~Wind and percussion majors take **MU 420**; string majors take **MU 421**.~~

[4] Wind and percussion majors take **MU 420**; string majors take **MU 421**. ~~Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).~~

[5] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Music Therapy Concentration MUSC-MUTZ-BM

Reason for Request: This change will add a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

In addition, several courses have been moved to different semesters to better balance the number of credits per semester, while taking in consideration pedagogical flow of course sequence.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music.

FRESHMAN			
		AUCC	**CREDITS**
CHEM 103	Chemistry in Context (GT-SC2)	3A	3
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I		1
MU 155	Guitar Class I		2
Select one group from the following:[2]~~1~~			
Group A:			
MU 172A	Freshman Voice Studio: English/Italian		2
MU 172B	Freshman Voice Studio: German, French		2
Group B:			
Applied Music Instruction - Lower-Division (see list below)			2-4
MU 241	Introduction to Music Therapy		3
Ensemble (see list below)[3]~~2~~			2
~~**PSY 100**~~	~~General Psychology (GT-SS3)~~	~~3C~~	~~3~~
Mathematics		1B	3
	Total Credits		**30-32**
SOPHOMORE			
BZ 110	Principles of Animal Biology (GT-SC2)	3A	3
BZ 111	Animal Biology Laboratory (GT-SC1)	3A	1
MU 153	Piano Skills for Music Therapists		1
MU 217	Music Theory III		4

MU 218	Music Theory IV		4
MU 250	Music Therapy Practice		3
MU 254	Beginning Conducting		2
Applied Music Instruction - Lower-Division (see list below)[2~~1~~]			2
MU 440	Music Therapy Methods I		3
Ensemble (see list below)[3~~2~~]			2
OT 215	Medical Terminology		1
PHIL 100	Appreciation of Philosophy (GT-AH3)	3B	3
~~**Advanced Writing**~~		~~2~~	~~3~~
PSY 100	General Psychology (GT-SS3)	3C	3
	Total Credits		**32**
JUNIOR			
BMS 300	Principles of Human Physiology		4
BMS 345	Functional Neuroanatomy		4
MU 157[4~~3~~]	Voice Class I		2
MU 335	Music History II	4A,4B	3
MU 342	Psychology of Music		3
MU 443	Music Therapy Methods II		3
MU 444	Music Therapy Methods III		3
Applied Music Instruction - Upper-Division (see list below)			1
MU 486A	Practicum: Music Therapy	4C	2~~1~~
Ensemble (see list below)[3~~2~~]			1
PSY 252	Mind, Brain, and Behavior		3
PSY 320	Abnormal Psychology		3
	Total Credits		**32~~31~~**
SENIOR			
MU 252D	Instrumental Techniques: Percussion		1
MU 343	Research Methods in Music Therapy		3
MU 445	Improvisation Techniques in Music Therapy		2
MU 486A	Practicum: Music Therapy	4C	1
MU 487	Internship		1
Select one from the following:			3
PSY 452	Cognitive Psychology		
PSY 454	Biological Psychology		
PSY 458	Cognitive Neuroscience		
STAT 201	General Statistics		3
Global and Cultural Awareness		3E	3

Historical Perspectives		3D	3
Advanced Writing		2	3
Music Electives			3~~5~~
	Total Credits		26~~25~~
	Program Total Credits:		120

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Applied Music Instruction - Upper-Division

Code	Title	Credits
MU 472A	Applied Music Instruction: Euphonium	1-2
MU 472B	Applied Music Instruction: French Horn	1-2
MU 472C	Applied Music Instruction: Trombone	1-2
MU 472D	Applied Music Instruction: Trumpet	1-2
MU 472E	Applied Music Instruction: Tuba	1-2
MU 472G	Applied Music Instruction: Harpsichord	1-2
MU 472H	Applied Music Instruction: Organ	1-2

Code	Title	Credits
MU 472I	Applied Music Instruction: Piano	1-2
MU 472J	Applied Music Instruction: Percussion	1-2
MU 472K	Applied Music Instruction: Guitar	1-2
MU 472L	Applied Music Instruction: Harp	1-2
MU 472M	Applied Music Instruction: String Bass	1-2
MU 472N	Applied Music Instruction: Viola	1-2
MU 472O	Applied Music Instruction: Violin	1-2
MU 472P	Applied Music Instruction: Violoncello	1-2
MU 472Q	Applied Music Instruction: Voice	1-2
MU 472R	Applied Music Instruction: Bassoon	1-2
MU 472S	Applied Music Instruction: Clarinet	1-2
MU 472T	Applied Music Instruction: Flute	1-2
MU 472U	Applied Music Instruction: Oboe	1-2
MU 472V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~First-year voice students must take **MU 172A** and **MU 172B**, then **MU 272Q** the second year for two semesters; instrumentalists take**MU 272A**-**MU 272P** or **MU 272R**-**MU 272V** on a major instrument for 2 semesters each of the first two years.~~

[2] First-year voice students must take **MU 172A** and **MU 172B**, then **MU 272Q** the second year for two semesters; instrumentalists take **MU 272A-MU 272P** or **MU 272R-MU 272V** on a major instrument for 2 semesters each of the first two years. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~

[3] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~Instrumental majors only.~~

[4] Instrumental majors only.

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Performance Concentration, Jazz Studies Option MUSC-PERZ-BM

Reason for Request: This change will add a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I		1
Applied Music Instruction – Lower-Division (see list below)[2~~1~~]			2
Applied Jazz Instruction (select two credits from the following):[2~~1~~]			
MU 274A	Applied Jazz Instruction: Piano		2
MU 274B	Applied Jazz Instruction: String Bass		2
MU 274C	Applied Jazz Instruction: Trombone		2
MU 274D	Applied Jazz Instruction: Trumpet		2
MU 274E	Applied Jazz Instruction: Percussion		2
MU 274F	Applied Jazz Instruction: Saxophone		2
MU 274G	Applied Jazz Instruction: Guitar		2
MU *** Ensemble (see list below)[3~~2~~]			4
Mathematics		1B	3
Electives			3~~4~~

		Total Credits	**29**
SOPHOMORE			
ETST 250/HIST 250	African American History (GT-HI1)	3D	3
MU 154	Jazz Piano Class		1
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
MU 225	Jazz Theory		2
Applied Music Instruction – Lower-Division (see list below)[2]			2
Applied Jazz Instruction (select two credits from the following):[2]			
MU 274A	Applied Jazz Instruction: Piano		2
MU 274B	Applied Jazz Instruction: String Bass		2
MU 274C	Applied Jazz Instruction: Trombone		2
MU 274D	Applied Jazz Instruction: Trumpet		2
MU 274E	Applied Jazz Instruction: Percussion		2
MU 274F	Applied Jazz Instruction: Saxophone		2
MU 274G	Applied Jazz Instruction: Guitar		2
MU *** Ensemble (see list below)[3]			4
PSY 100	General Psychology (GT-SS3)	3C	3
Advanced Writing		2	3
Biological and Physical Sciences		3A	3
		Total Credits	**31**
JUNIOR			
MU 317	Music Theory V		2
MU 320	Jazz Improvisation		1
MU 325	Jazz Composition/Arranging		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
MU 471	Recital	4C	1
MU 474	Applied Jazz Instruction		4
MU *** Ensemble (see list below)[3]			2
MU *** Music Electives			6
Arts and Humanities		3B	3
Elective			3
		Total Credits	**30**
SENIOR			
MU 332	History of Jazz		3
MU 415	Advanced Jazz Techniques		2

MU 425	Jazz Pedagogy		2
MU 471	Recital	4C	1
MU 474	Applied Jazz Instruction		4
MU *** Ensemble (see list below)[3]			2
Biological and Physical Sciences		3A	4
Global and Cultural Awareness		3E	3
Electives[4]			9
		Total Credits	**30**
	Program Total Credits:		**120**

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1

Code	Title	Credits
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] B.M. Majors with prior keyboard experience may test out of MU 150 and use the credit toward electives. ~~Major instrument, two semesters for freshman and sophomore.~~

[2] Major instrument, two semesters for freshman and sophomore. ~~Students enrolled in **MU 272A**-**MU 272V** should be concurrently enrolled in a concert band (**MU 205**, **MU 304**, **MU 404**). Eight of the total ensemble credits should be satisfied through participation in either **MU 309** or **MU 310**.~~

[3] Students enrolled in **MU 272A**-**MU 272V** should be concurrently enrolled in a concert band (**MU 205**, **MU 304**, **MU 404**). Eight of the total ensemble credits should be satisfied through participation in either **MU 309** or **MU 310**. ~~Select enough elective credits to bring program total to 120 credits, of which at least 42 must be upper division (300-400 level).~~

[4] Select enough elective credits to bring program total to 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Performance Concentration, Orchestral Instrument Option MUSC-PERZ-BM

Reason for Request: This change will add a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

FRESHMAN			
		AUCC	CREDITS
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4

MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I	-	1
Applied Music Instruction – Lower-Division (see list below)[2~~1~~]			2-4
MU *** Ensemble (see list below)[3~~2~~]			2
Historical Perspectives		3D	3
Mathematics		1B	3
Electives			3-5~~4-6~~
	Total Credits		**28-32**
SOPHOMORE			
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
Applied Music Instruction – Lower-Division (see list below)[2~~1~~]			4
MU *** Ensemble (see list below)[3~~2~~]			2
PSY 100	General Psychology (GT-SS3)	3C	3
Advanced Writing		2	3
Electives			11
	Total Credits		**31**
JUNIOR			
MU 254	Beginning Conducting		2
MU 317	Music Theory V		2
MU 318	Arranging and Orchestration		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
MU 417	Counterpoint		3
MU 471	Recital		1
Applied Music Instruction – Upper-Division (see list below)[4~~3~~]			4
MU *** Ensemble (see list below)[3~~2~~]			2
Arts and Humanities		3B	3
Electives			4
	Total Credits		**29**
SENIOR			
MU 471	Recital	4C	1
Applied Music Instruction – Upper-Division (see list below)[4~~3~~]			4
MU *** Ensemble (see list below)[3~~2~~]			2
MU *** Electives			3
Biological and Physical Sciences		3A	7

Global and Cultural Awareness	3E	3
Electives[5]		8-12
	Total Credits	**28**
Program Total Credits:		**120**

Applied Music Instruction - Lower-Division

Code	Title	Credits
MU 272A	Applied Music Instruction: Euphonium	1-2
MU 272B	Applied Music Instruction: French Horn	1-2
MU 272C	Applied Music Instruction: Trombone	1-2
MU 272D	Applied Music Instruction: Trumpet	1-2
MU 272E	Applied Music Instruction: Tuba	1-2
MU 272G	Applied Music Instruction: Harpsichord	1-2
MU 272H	Applied Music Instruction: Organ	1-2
MU 272I	Applied Music Instruction: Piano	1-2
MU 272J	Applied Music Instruction: Percussion	1-2
MU 272K	Applied Music Instruction: Guitar	1-2
MU 272L	Applied Music Instruction: Harp	1-2
MU 272M	Applied Music Instruction: String Bass	1-2
MU 272N	Applied Music Instruction: Viola	1-2
MU 272O	Applied Music Instruction: Violin	1-2
MU 272P	Applied Music Instruction: Violoncello	1-2
MU 272Q	Applied Music Instruction: Voice	1-2
MU 272R	Applied Music Instruction: Bassoon	1-2
MU 272S	Applied Music Instruction: Clarinet	1-2
MU 272T	Applied Music Instruction: Flute	1-2
MU 272U	Applied Music Instruction: Oboe	1-2
MU 272V	Applied Music Instruction: Saxophone (Alto)	1-2

Applied Music Instruction - Upper-Division

Code	Title	Credits
MU 472A	Applied Music Instruction: Euphonium	1-2
MU 472B	Applied Music Instruction: French Horn	1-2
MU 472C	Applied Music Instruction: Trombone	1-2
MU 472D	Applied Music Instruction: Trumpet	1-2
MU 472E	Applied Music Instruction: Tuba	1-2
MU 472G	Applied Music Instruction: Harpsichord	1-2
MU 472H	Applied Music Instruction: Organ	1-2
MU 472I	Applied Music Instruction: Piano	1-2

Code	Title	Credits
MU 472J	Applied Music Instruction: Percussion	1-2
MU 472K	Applied Music Instruction: Guitar	1-2
MU 472L	Applied Music Instruction: Harp	1-2
MU 472M	Applied Music Instruction: String Bass	1-2
MU 472N	Applied Music Instruction: Viola	1-2
MU 472O	Applied Music Instruction: Violin	1-2
MU 472P	Applied Music Instruction: Violoncello	1-2
MU 472Q	Applied Music Instruction: Voice	1-2
MU 472R	Applied Music Instruction: Bassoon	1-2
MU 472S	Applied Music Instruction: Clarinet	1-2
MU 472T	Applied Music Instruction: Flute	1-2
MU 472U	Applied Music Instruction: Oboe	1-2
MU 472V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~Major instrument. Take two semesters each during the freshman and sophomore years.~~

[2] Major instrument. Take two semesters each during the freshman and sophomore years. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~

[3] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. ~~Major instrument. Take two semesters each during the junior and senior years.~~

[4] Major instrument. Take two semesters each during the junior and senior years. ~~Select enough elective credits to bring the program total to 120, of which at least 42 must be upper-division (300- to 400-level).~~

[5] Select enough elective credits to bring the program total to 120, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Performance Concentration, Voice Option MUSC-PERZ-BM

Reason for Request: This change will add a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

A minimum grade of C is required in all music courses used to satisfy the requirements of the major programs (B.A. and B.M.) in music.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I	-	1
MU 172A	Freshman Voice Studio: English/Italian		2
MU 172B	Freshman Voice Studio: German, French		2
MU *** Ensemble[2]~~[1]~~			2
PSY 100	General Psychology (GT-SS3)	3C	3
Biological and Physical Sciences		3A	4
Mathematics		1B	3
	Total Credits		**31~~30~~**
SOPHOMORE			
LITA *** Foreign Language (Italian)			5
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
MU 272Q[3]~~[2]~~	Applied Music Instruction: Voice		4

MU 365A	Advanced Diction: Italian and English		1
MU 365B	Advanced Diction: French and German		1
MU *** Ensemble[2~~1~~]			2
TH 352	Acting for Singers		2
Advanced Writing		2	3
Arts and Humanities		3B	3
	Total Credits		**29**
JUNIOR			
LFRE *** Foreign Language (French)			5
LGER *** Foreign Language (German)			5
MU 254	Beginning Conducting		2
MU 317	Music Theory V		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
MU 417	Counterpoint		3
MU 471	Recital		1
MU 472Q[3~~2~~]	Applied Music Instruction: Voice		4
MU *** Ensemble[2~~1~~]			2
	Total Credits		**30**
SENIOR			
MU 338	Opera History and Literature		2
MU 466	Song Literature		2
MU 467	Vocal Pedagogy		2
MU 471	Recital	4C	1
MU 472Q[3~~2~~]	Applied Music Instruction: Voice		4
MU *** Ensemble[2~~1~~]			2
Music Electives			3
Biological and Physical Sciences		3A	3
Global and Cultural Awareness		3E	3
Historical Perspectives		3D	3
Electives[4~~3~~]			5~~6~~
	Total Credits		**30~~31~~**
	Program Total Credits:		**120**

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1

Code	Title	Credits
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~

[2] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. ~~Take two semesters each during the sophomore, junior, and senior years.~~

[3] Take two semesters each during the sophomore, junior, and senior years. ~~Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).~~

[4] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BM in Music
Performance Concentration, String Pedagogy Option MUSC-PERZ-BM

Reason for Request: This change will add a basic keyboard course to the program of study. Basic piano competency is recognized as a component of comprehensive musicianship by the National Association of Schools of Music (NASM). Keyboard skills are used as a tool in many required music courses to facilitate an understanding of the common elements and organizational patterns of music, including musical forms, processes, and structures. Adding a basic piano class to all B.M. concentrations will allow students to meet this standard within their required curricula and fulfill a departmental competency expectation necessary for NASM accreditation.

FRESHMAN		
	AUCC	CREDITS

CO 150	College Composition (GT-CO2)	1A	3
MU 117	Music Theory I		4
MU 118	Music Theory II		4
MU 131	Introduction to Music History and Literature (GT-AH1)	3B	3
MU 150[1]	Piano Class I	-	1
Select two semesters from the following:[2]~~[1]~~			
MU 272M	Applied Music Instruction: String Bass		2
MU 272N	Applied Music Instruction: Viola		2
MU 272O	Applied Music Instruction: Violin		2
MU 272P	Applied Music Instruction: Violoncello		2
MU *** Ensemble (see list below)[3]~~[2]~~			2
Historical Perspectives		3D	3
Mathematics		1B	3
Electives			5~~6~~
	Total Credits		**30**
SOPHOMORE			
MU 217	Music Theory III		4
MU 218	Music Theory IV		4
Select two semesters from the following:[2]~~[1]~~			
MU 272M	Applied Music Instruction: String Bass		1-2
MU 272N	Applied Music Instruction: Viola		1-2
MU 272O	Applied Music Instruction: Violin		1-2
MU 272P	Applied Music Instruction: Violoncello		1-2
MU *** Ensemble (see list below)[3]~~[2]~~			2
PSY 100	General Psychology (GT-SS3)	3C	3
Advanced Writing		2	3
Elective			10-12
	Total Credits		**28-32**
JUNIOR			
MU 254	Beginning Conducting		2
MU 317	Music Theory V		2
MU 318	Arranging and Orchestration		2
MU 334	Music History I	4A,4B	3
MU 335	Music History II	4A,4B	3
Select two credits from the following:			
MU 351A	String Pedagogy I: Violin/Viola.		2
MU 351B	String Pedagogy I: Violoncello		2

MU 351C	String Pedagogy I: String Bass		2
Select two credits from the following:			
MU 352A	String Pedagogy II: Violin/Viola		2
MU 352B	String Pedagogy II: Violoncello		2
MU 352C	String Pedagogy II: String Bass		2
MU 417	Counterpoint		3
Applied Music Instruction – Upper-Division (see list below)[4~~3~~]			4
MU *** Ensemble (see list below)[3~~2~~]			2
Select one from the following:			
PSY 260	Child Psychology		3
PSY 465	Adolescent Psychology		3
Arts and Humanities		3B	3
	Total Credits		**31**
SENIOR			
Select two credits from the following:			
MU 451A	String Pedagogy III: Violin		2
MU 451B	String Pedagogy III: Violoncello		2
MU 451C	String Pedagogy III: String Bass		2
Select two credits from the following:			
MU 464A	String Literature: Violin/Viola		2
MU 464B	String Literature: Violoncello		2
MU 464C	String Literature: String Bass		2
MU 471	Recital	4C	1
Applied Music Instruction – Upper-Division (see list below)[4~~3~~]			4
MU *** Ensemble (see list below)[3~~2~~]			2
MU *** Music Electives			3
Biological and Physical Sciences		3A	7
Global and Cultural Awareness		3E	3
Electives[5]			2-6
	Total Credits		**26-30**
	Program Total Credits:		**120**

Applied Music Instruction - Upper-Division

Code	Title	Credits
MU 472A	Applied Music Instruction: Euphonium	1-2
MU 472B	Applied Music Instruction: French Horn	1-2
MU 472C	Applied Music Instruction: Trombone	1-2
MU 472D	Applied Music Instruction: Trumpet	1-2

Code	Title	Credits
MU 472E	Applied Music Instruction: Tuba	1-2
MU 472G	Applied Music Instruction: Harpsichord	1-2
MU 472H	Applied Music Instruction: Organ	1-2
MU 472I	Applied Music Instruction: Piano	1-2
MU 472J	Applied Music Instruction: Percussion	1-2
MU 472K	Applied Music Instruction: Guitar	1-2
MU 472L	Applied Music Instruction: Harp	1-2
MU 472M	Applied Music Instruction: String Bass	1-2
MU 472N	Applied Music Instruction: Viola	1-2
MU 472O	Applied Music Instruction: Violin	1-2
MU 472P	Applied Music Instruction: Violoncello	1-2
MU 472Q	Applied Music Instruction: Voice	1-2
MU 472R	Applied Music Instruction: Bassoon	1-2
MU 472S	Applied Music Instruction: Clarinet	1-2
MU 472T	Applied Music Instruction: Flute	1-2
MU 472U	Applied Music Instruction: Oboe	1-2
MU 472V	Applied Music Instruction: Saxophone (Alto)	1-2

Ensemble Courses

Code	Title	Credits
MU 201	Men's Chorus	1
MU 202	University Chorus	1
MU 204	Marching Band	1
MU 205	Concert Band	1
MU 206	Colorado State University Concert Orchestra	1
MU 300	Women's Chorus	1
MU 302	University Orchestra	1
MU 304	Symphonic Band	1
MU 305	Colorado State University Concert Choir	1
MU 309	Jazz Ensemble	1
MU 310	Jazz Combo	1
MU 400	Colorado State University Chamber Choir	1
MU 401	Opera Theater	1-2
MU 402	Theater/Chamber Orchestra	1
MU 404	Symphonic Wind Ensemble	1
MU 407	Accompanying	1
MU 408	Chamber Music	1

[1] Students with previous keyboard experience may test out of MU 150 and use the one credit for an elective. ~~Take two semesters each in the freshman and sophomore years.~~

[2] Take two semesters each in the freshman and sophomore years. ~~Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience.~~

[3] Students must participate in an ensemble during each semester in which they are enrolled in **MU 172A**-**MU 172B**, **MU 272A**-**MU 272V**, and**MU 472A**-**MU 472V**. At least once during the program of study, this must be achieved by taking **MU 408** or through another small ensemble experience. ~~Major instrument. Take two semesters each in the junior and senior years.~~

[4] Major instrument. Take two semesters each in the junior and senior years. ~~Select enough elective credits to bring the program total to 120, of which at least 42 must be upper-division (300- to 400-level).~~

[5] Select enough elective credits to bring the program total to 120, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BA in Theatre
Design and Technology Concentration THTR-DTHZ-BA

Reason for Request: Adaptation of the Design and Technology Concentration in preparation for, and fulfillment of, the current standards of The National Association of Schools of Theatre (NAST) for accreditation and certification.

FRESHMAN			
		AUCC	**CREDITS**
Select one from the following:			
ART 100	Introduction to the Visual Arts (GT-AH1)	3B	3
D 110	Understanding Dance (GT-AH1)	3B	3
MU 100	Music Appreciation (GT-AH1)	3B	3
CO 150	College Composition (GT-CO2)	1A	3
~~**TH 141**~~	~~Introduction to Theatre (GT-AH1)~~	~~3B~~	~~3~~
TH 150	Introduction to Performance		3
TH 160	Drawing for the Theatre		3
TH 161	Technical Theatre: Stagecraft		3
~~**TH 163**~~	~~Costume Construction for the Theatre~~	~~-~~	~~3~~
~~**TH 175**~~	~~Storytelling~~	~~-~~	~~3~~
TH 186	Theatre Practicum I		1
~~**TH 292**[1]~~	~~Design and Technology Seminar~~	~~-~~	~~2~~
TH 192	Freshman Seminar	-	3
Mathematics		1B	3
Electives		-	9
		Total Credits	**31**~~**30**~~
SOPHOMORE			

Select one of the following:		-	
ART 100	Introduction to the Visual Arts (GT-AH1)	3B	3
D 110	Understanding Dance (GT-AH1)	3B	3
MU 100	Music Appreciation (GT-AH1)	3B	3
TH 241	Text Analysis for the Theatre		3
TH 242	Theatre History I		3
TH 243	Theatre History II		3
TH 260	Computer Assisted Drafting for Theatre		3
Select one course from the following:			
TH 262	Stage Management I		3
TH 263	Costume Design I		3
TH 264	Lighting Design for the Theatre I		3
TH 266	Digital Media Design for Live Performance I		3
~~**TH 269**~~	~~Theatrical Makeup~~	~~-~~	~~3~~
TH 265	Set Design I		3
~~**TH 275**~~	~~Self-Scripting and Performance Workshop~~	~~-~~	~~3~~
TH 286	Theatre Practicum II		1
TH 292[1]	Design and Technology Seminar		2
Biological and Physical Sciences		3A	3
Historical Perspectives		3D	3
Elective		-	3
	Total Credits		**30**
JUNIOR			
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	2	3
~~**TH 292**[1]~~	~~Design and Technology Seminar~~	~~-~~	~~2~~
~~**TH 301**[2]~~	~~Theatre Design and Production Special Topics~~	~~-~~	~~6~~
Select one course from the following:			
TH 362	Stage Management II	4A	3
TH 363	Costume Design II	4A	3
TH 364	Lighting Design for the Theatre II	4A	3
TH 365	Advanced Scenic Design	4A	3
TH 366	Digital Media Design for Live Performance II	4A	3
~~**TH 370A**~~	~~Theatre Assistant: Design~~	~~-~~	~~3~~
~~**TH 384**~~	~~Supervised College Teaching~~	~~-~~	~~3~~
TH 386	Theatre Practicum III		1
TH 400[2]	Theatre Production Workshop	-	1
Select one course from the following:		-	

TH 262	Stage Management I	-	3
TH 263	Costume Design I	-	3
TH 264	Lighting Design for the Theatre I	-	3
TH 265	Set Design I	-	3
TH 266	Digital Media Design for Live Performance I	-	3
TH *** Upper-Division TH Elective			3
Biological and Physical Sciences		3A	4
Global and Cultural Awareness		3E	3
Elective		-	7
	Total Credits		**28~~31~~**
SENIOR			
~~TH 392~~	~~Theatre Seminar~~	~~-~~	~~3~~
TH 370A	Theatre Assistant: Design	-	3
TH 400[2]	Theatre Production Workshop	-	2
TH 401	Theatrical Design and Prod Advanced Topics		3
Select one from the following:			
TH 460	Design Portfolio and Professional Preparation	4B,4C	3
TH 471	Capstone in Theatre Practice	4B,4C	3
~~TH 484~~	~~Supervised College Teaching~~	~~-~~	~~3~~
TH 486	Theatre Practicum IV		2
Social and Behavioral Sciences		3C	3
Electives[3]			15~~12~~
	Total Credits		**31~~29~~**
	Program Total Credits:		**120**

1 Students should take **TH 292** for 1 credit, two semesters total. ~~each in the freshman, sophomore, and junior years.~~

2 TH 400 should be taken 3 times, 1 credit each semester taken. ~~TH 301 must be taken two semesters, once in the Fall, and once in the Spring, of the junior year.~~

3 Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BA in Theatre
General Theatre Concentration THTR-GTRZ-BA

Reason for Request: Adaptation of the General Theatre in preparation for, and fulfillment of, the current standards of The National Association of Schools of Theatre (NAST) for accreditation and certification.

FRESHMAN

		AUCC	CREDITS
Select two ~~one~~ courses from the following:			
ART 100	Introduction to the Visual Arts (GT-AH1)	3B	3
D 110	Understanding Dance (GT-AH1)	3B	3
MU 100	Music Appreciation (GT-AH1)	3B	3
CO 150	College Composition (GT-CO2)	1A	3
TH 141	Introduction to Theatre (GT-AH1)	3B	3
Select one from the following:			3
TH 150	Introduction to Performance		3
TH 160	Drawing for the Theatre		3
~~**TH 175**~~	~~Storytelling~~	~~-~~	~~3~~
TH 161	Technical Theatre: Stagecraft	-	3
TH 186	Theatre Practicum I		1~~2~~
TH 192	Freshman Seminar	-	3
Biological and Physical Sciences		3A	3
Mathematics		1B	3
~~**Social and Behavioral Sciences**~~		~~3C~~	~~3~~
Elective			3~~2~~
	Total Credits		**31**
SOPHOMORE			
~~Select one from the following:~~			
TH 151	Acting I		3
~~**TH 161**~~	~~Technical Theatre: Stagecraft~~	~~-~~	~~-~~
TH 241	Text Analysis for the Theatre		3
TH 242	Theatre History I		3
~~Select at least two of the following courses for a minimum of 6 credits:~~		~~-~~	~~6~~
~~**TH 249**~~	~~Movement for Actors II~~	~~-~~	~~-~~
~~**TH 250**~~	~~Voice and Speech for the Stage~~	~~-~~	~~-~~
TH 255	Directing Workshop		3
TH 260	Computer Assisted Drafting for Theatre	-	3
Select one of the following:			
TH 262	Stage Management I		3
TH 263	Costume Design I		3
TH 264	Lighting Design for the Theatre I		3
TH 265	Set Design I		3
TH 266	Digital Media Design for Live Performance I		3
~~**TH 275**~~	~~Self-Scripting and Performance Workshop~~	~~-~~	~~3~~

~~Select one of the following courses not taken elsewhere:~~		~~-~~		~~3~~
~~**TH 251**~~	~~Acting II~~	~~-~~	~~-~~	
~~**TH 255**~~	~~Directing Workshop~~	~~-~~	~~-~~	
~~**TH 261**~~	~~Drawing and Drafting for the Theatre~~	~~-~~	~~-~~	
~~**TH 275**~~	~~Self-Scripting and Performance Workshop~~	~~-~~	~~-~~	
TH 286	Theatre Practicum II			1
Advanced Writing		2		3
Biological and Physical Sciences		3A		4
Global and Cultural Awareness		3E		3
~~**Historical Perspectives**~~		~~3D~~		~~3~~
Social and Behavioral Sciences		3C		3
	Total Credits			**32**
JUNIOR				
TH 243	Theatre History II			3
~~Select one course from the following:~~		~~-~~		~~3~~
~~**TH 351**~~	~~Acting III~~	~~4A~~	~~-~~	
Select one course from the following:		-		
TH 355	Directing Seminar	4A		3
TH 375	Playwright's Workshop	4A		3
~~**TH 362**~~	~~Stage Management II~~	~~4A~~	~~-~~	
~~**TH 363**~~	~~Costume Design II~~	~~4A~~	~~-~~	
~~**TH 364**~~	~~Lighting Design for the Theatre II~~	~~4A~~	~~-~~	
~~**TH 365**~~	~~Advanced Scenic Design~~	~~4A~~	~~-~~	
~~**TH 366**~~	~~Digital Media Design for Live Performance II~~	~~4A~~	~~-~~	
Select one course from the following not already taken:		-		
TH 251	Acting II			3
TH 344	Dramaturgy Protocol Seminar	-		3
TH 355	Directing Seminar	4A		3
TH 375	Playwright's Workshop	4A		3
TH 386	Theatre Practicum III			1
~~TH *** Upper-division TH Electives~~		~~-~~		~~9~~
Arts and Humanities		~~3B~~		~~3~~
TH 400[1]	Theatre Production Workshop	-		2
Historical Perspectives		3D		3
Electives				15~~11~~
	Total Credits			**30**
SENIOR				

~~Select one course from the following:~~		~~-~~	~~3-4~~
TH 400[1]	Theatre Production Workshop	-	1
Select one of the following:			
TH 450	Professional Actor Preparation	4B	3
~~**TH 455**~~	~~Advanced Directing~~	~~4B,4C~~	~~3~~
TH 460	Design Portfolio and Professional Preparation	4B	3
TH 471	Capstone in Theatre Practice	4C	3
~~**TH 475**~~	~~Advanced Playwriting~~	~~4B,4C~~	~~-~~
~~**TH 499**~~	~~Theatre Thesis~~	~~4B,4C~~	~~-~~
~~TH *** Upper-division TH Electives~~		~~-~~	~~9~~
~~Electives~~[1]		~~-~~	~~17-18~~
Select one of the following:		-	
TH 401	Theatrical Design and Prod Advanced Topics	-	3
TH 451	Advanced Topics in Acting	-	3
Electives[2]		-	17
	Total Credits		**27**
	Program Total Credits:		**120**

1 **TH 400** should be taken 3 times for 1 credit each. ~~Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).~~

2 Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Liberal Arts **Effective Fall 2016**
Department of Music, Theatre, and Dance
BA in Theatre
Performance Concentration THTR-PRFZ-BA

Reason for Request: Adaptation of the Performance (Acting/Directing) Concentration in preparation for, and fulfillment of, the current standards of The National Association of Schools of Theatre (NAST) for accreditation and certification.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
~~Select one from the following:~~		~~-~~	~~2~~
~~**D 120A**~~	~~Dance Techniques I: Modern~~	~~-~~	~~-~~
~~**D 120B**~~	~~Dance Techniques I: Ballet~~	~~-~~	~~-~~
~~**TH 141**~~	~~Introduction to Theatre (GT-AH1)~~	~~3B~~	~~3~~
Select two from the following:		-	

ART 100	Introduction to the Visual Arts (GT-AH1)	3B	3
D 110	Understanding Dance (GT-AH1)	3B	3
MU 100	Music Appreciation (GT-AH1)	3B	3
TH 150	Introduction to Performance		3
TH 151	Acting I		3
~~**TH 153**~~	~~Singing for Actors I~~	~~-~~	~~2~~
TH 161	Technical Theatre: Stagecraft		3
~~**TH 175**~~	~~Storytelling~~	~~-~~	~~3~~
TH 186	Theatre Practicum I		1
~~**Biological and Physical Sciences**~~		~~3A~~	~~4~~
TH 192	Freshman Seminar	-	3
Mathematics		1B	3
Electives		-	6
	Total Credits		**31~~30~~**
SOPHOMORE			
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	2	3
~~**TH 240**~~	~~Reading Shakespeare for the Theatre~~	~~-~~	~~3~~
TH 241	Text Analysis for the Theatre		3
TH 242	Theatre History I		3
TH 243	Theatre History II		3
TH 250	Voice and Speech for the Stage		3~~2~~
TH 251	Acting II		3
~~**TH 253**~~	~~Singing for Actors II~~	~~-~~	~~2~~
~~**TH 275**~~	~~Self-Scripting and Performance Workshop~~	~~-~~	~~3~~
TH 286	Theatre Practicum II		1
~~**Arts and Humanities**~~		~~3B~~	~~3~~
TH 255	Directing Workshop	-	3
Biological and Physical Sciences		3A	7~~3~~
Elective		-	3
	Total Credits		**32**
JUNIOR			
~~**TH 269**~~	~~Theatrical Makeup~~	~~-~~	~~3~~
~~**TH 343**~~	~~Contemporary Plays and Alternative Theatre~~	~~-~~	~~3~~
~~**TH 349**~~	~~Movement for Actors III~~	~~-~~	~~2~~
TH 350	Classical Text		3
Select one course from the following:		-	
TH 344	Dramaturgy Protocol Seminar	-	3

TH 375	Playwright's Workshop	4A	3
Select one course from the following:		-	
TH 351	Acting III	4A	3
TH 355	Directing Seminar	4A	3
TH 386	Theatre Practicum III		1
~~**TH 392**~~	~~Theatre Seminar~~	~~-~~	~~3~~
TH 400[1]	Theatre Production Workshop	-	1
Global and Cultural Awareness		3E	3
Historical Perspectives		3D	3
Elective			12~~3~~
	Total Credits		**29**
SENIOR			
~~**TH 449**~~	~~Commedia and Masks~~	~~-~~	~~3~~
TH 400[1]	Theatre Production Workshop	-	2
TH 450	Professional Actor Preparation	4B~~, 4C~~	3
TH 451[1]	Advanced Topics in Acting		3
~~**TH 492**~~	~~Theatre Seminar~~	~~-~~	~~3~~
TH 471	Capstone in Theatre Practice	4C	3
Social and Behavioral Sciences		3C	3
Electives[2]			14~~13~~
	Total Credits		**28**
	Program Total Credits:		**120**

1 **TH 400** should be taken 3 times, 1 credit each course taken. ~~Students must take **TH 451** for two semesters, for three credits each time, and for different topics.~~

2 Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

Warner College of Natural Resources **Effective Fall 2016**
Department of Human Dimensions of Natural Resources
BS in Natural Resource ~~Recreation and~~ Tourism
Global Tourism Concentration NRRT-GLTZ-BS

Reason for Request: Previous to this academic year, the major Natural Resource Recreation and Tourism (NRRT) had 4 concentrations: Parks and Protected Area Management (PPAM), Environmental Communication (EC), Natural Resource Tourism (NRT), and Global Tourism (GLT). During this past year, PPAM and EC have been combined into a new major called Human Dimensions in Natural Resources (HDNR). Global Tourism (NRT) has been retained as a separate concentration in the already existing major by the Department. Because the configuration of this existing major has been changed, a new name for the major is being proposed, which more closely matches the focus of the two remaining concentrations. The proposed new name for the major is Natural Resource Tourism.

The proposed new name for the major more closely reflects the content of the Global Tourism concentration. While this concentration offers more of an international perspective on tourism management and planning, including a minor in language, the primary focus is still on low impact, natural resource-related types of tourism.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
ECON 202	Principles of Microeconomics (GT-SS1)	3C	3
Select one of the following:			5
L*** 107 First Year Language II			
L*** 108 Intensive Language I			
MATH 117	College Algebra in Context I (GT-MA1)	1B	1
MATH 118	College Algebra in Context II (GT-MA1)	1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	1
NR 120A or **120B**	Environmental Conservation (GT-SC2) Environmental Conservation	3A	3-4
SPCM 200	Public Speaking		3
Arts and Humanities		3B	3
Biological and Physical Sciences		3A	7
Elective			1
	Total Credits		**31-32**
SOPHOMORE			
ACT 205	Fundamentals of Accounting		3
BUS 205	Legal and Ethical Issues in Business		3
L*** 200 Second Year Language I			3
L*** 201 Second Year Language II			3
RRM 101	Hospitality Industry		3
RRM 200	Hotel Operations		3
NRRT 270	Principles of Natural Resource Tourism		3
STAT 201	General Statistics		3
Arts and Humanities		3B	3
	Total Credits		**27**
JUNIOR			
Select one course from the following:			3
CO 300	Writing Arguments (GT-CO3)	2	
CO 301A	Writing in the Disciplines: Arts and Humanities (GT-CO3)	2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)	2	
CO 301D	Writing in the Disciplines: Education (GT-CO3)	2	

JTC 300	Professional and Technical Communication (GT-CO3)	2	
Select one from the following:			
L*** 300 Reading and Writing for Communication			3
L*** 304 Third-Year Language I			3
Select one from the following:			
L*** 305 Third-Year Language II			3
L*** 335 Issues in Culture			3
MGT 305	Fundamentals of Management		3
MKT 305	Fundamentals of Marketing		3
NR 320	Natural Resources History and Policy	3D	3
NR 387	Internship I		1
NRRT 320	International Issues-Recreation and Tourism		3
NRRT 370	Managing Tourism in the E-Commerce Era		3
NRRT 376	Human Dimensions Research and Analysis		3
Global and Cultural Awareness[1]		3E	0-3
	Total Credits		**28-31**
SENIOR			
MKT 365	International Marketing		3
NR 300	Biological Diversity		3
NRRT 442	Tourism Planning	4B,4C	3
NRRT 470	Tourism Impacts	4A	3
NRRT 471	Starting and Managing Tourism Enterprise		3
NRRT 487	Internship		4
NRRT 499	Senior Thesis		3
RRM 350	Restaurant and Resort Marketing		3
Upper-division language electives			5-10
	Total Credits		**30-35**
	Program Total Credits:		**120-121**

[1] This requirement is automatically satisfied by studying abroad with SA 482.

Warner College of Natural Resources **Effective Fall 2016**
Department of Human Dimensions of Natural Resources
BS in Natural Resource ~~Recreation and~~ Tourism
Natural Resource Tourism Concentration NRRT-NRTZ-BS

Reason for Request: Previous to this academic year, the major Natural Resource Recreation and Tourism (NRRT) had 4 concentrations: Parks and Protected Area Management (PPAM), Environmental Communication (EC), Natural Resource Tourism (NRT), and Global Tourism (GLT). During this past year, PPAM and EC have been combined into a new major called Human Dimensions in Natural Resources (HDNR). Global Tourism (NRT) has been retained as a separate concentration in the already

existing major by the Department. Because of the configuration of this existing major has been changed, a new name for the major is being proposed more closely matches the focus of the two remaining concentrations. The proposed new name for the major is Natural Resource Tourism.

This Major title more closely matches the focus of the Natural Resource Tourism concentration and the emphasis on courses related to natural resource management and planning for tourism activity. This program prepares students for natural resource-related tourism positions, for example, at resorts; as hunting, fishing or rafting outfitters; managers of ecotourism lodges, and so on.

FRESHMAN			
		AUCC	**CREDITS**
BUS 150	Business Computing Concepts and Applications		3
CO 150	College Composition (GT-CO2)	1A	3
ECON 202	Principles of Microeconomics (GT-SS1)	3C	3
MATH 117	College Algebra in Context I (GT-MA1)	1B	1
MATH 118	College Algebra in Context II (GT-MA1)	1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	1
Arts and Humanities		3B	6
Biological and Physical Sciences		3A	7
Political Science Elective[1]			3
Guided Elective[1]			2
	Total Credits		**30**
SOPHOMORE			
ACT 205	Fundamentals of Accounting		3
BUS 205	Legal and Ethical Issues in Business		3
NRRT 231	Principles-Parks/Protected Area Management		3
NRRT 270	Principles of Natural Resource Tourism		3
RRM 101	Hospitality Industry		3
SPCM 200	Public Speaking		3
STAT 201	General Statistics		3
Guided Elective[1]			6
	Total Credits		**27**
JUNIOR			
MGT 305	Fundamentals of Management		3
MKT 305	Fundamentals of Marketing		3
Select one course from the following:			3
JTC 350	Public Relations		
NR 400	Public Relations in Natural Resources		
NR 320	Natural Resources History and Policy	3D	3
NR 387	Internship I		1

NRRT 320	International Issues-Recreation and Tourism		3
NRRT 376	Human Dimensions Research and Analysis		3
Advanced Writing		2	3
Global and Cultural Awareness		3E	3
Guided Electives[1]			6
	Total Credits		**31**
SENIOR			
NRRT 330	Social Aspects of Natural Resource Management		3
NRRT 372	Tourism Promotion		3
NRRT 442	Tourism Planning	4B,4C	3
NRRT 460/RRM 460	Event and Conference Planning		3
NRRT 470	Tourism Impacts	4A	3
NRRT 471	Starting and Managing Tourism Enterprise		3
NRRT 487	Internship		5
Guided Electives[1]			9
	Total Credits		**32**
	Program Total Credits:		**120**

[1] Select from departmental list of approved courses.

Warner College of Natural Resources **Effective Fall 2016**
Department of Ecosystem Science and Sustainability
BS in Watershed Science WRSC-BS

Reason for Request: Three requests are being made:

1) Removal of LIFE 102 for Freshman Year Biology requirement. This course is not an approved prerequisite for NR 220, a course required in Summer between Sophomore and Junior year. Removing LIFE 102 from the options for Freshman Year Biology will help ensure that watershed students have correctly met biology-based prerequisites for NR 220.

2) Lowering of Senior Year - Watershed Science Department List Selection from 9 credits to 6 credits. This credit requirement in Senior Year was inadvertently changed upward to 9 credits when the CSU catalog was transitioned to the new online format. Taken together, Junior and Senior Year Watershed Science Department List Selections should total 9 credits, not 12 credits as reflected in the new CSU catalog online.

3) Raising of Senior Year Electives to 5-7 credits to ensure total credits for Senior Year add up to 25-27 with Change #2 (above) made.

FRESHMAN		
	AUCC	**CREDITS**
Select one from the following:		

BUS 150	Business Computing Concepts and Applications		3
CS 110	Personal Computing		4
Select one from the following:			
BZ 110 & **BZ 111**	Principles of Animal Biology (GT-SC2)	3A	3 1
BZ 120	Principles of Plant Biology (GT-SC2)	3A	4
~~**LIFE 102**~~	~~Attributes of Living Systems (GT-SC1)~~	~~3A~~	~~4~~
LIFE 103[1]	Biology of Organisms-Animals and Plants		4
Select one group from the following:			
Group A:			
CHEM 107	Fundamentals of Chemistry (GT-SC2)	3A	4
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	3A	1
Group B:			
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CO 150	College Composition (GT-CO2)	1A	3
ESS 130	System Theory and Information Management		1
Select one from the following:			
GEOL 120	Exploring Earth: Physical Geology (GT-SC2)	3A	3
GEOL 122	The Blue Planet: Geology of Our Environment (GT-SC2)	3A	3
GEOL 124	Geology of Natural Resources (GT-SC2)	3A	3
GEOL 150	Physical Geology for Scientists and Engineers		4
Select one from the following:			
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	4
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
Arts and Humanities		3B	3
Global and Cultural Awareness		3E	3
	Total Credits		**29-31**

SOPHOMORE

Select one from the following:			
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	3
JTC 300	Professional and Technical Communication (GT-CO3)	2	3
LB 300	Specialized Professional Writing	2	3
ESS 210/**GR 210**	Physical Geography		3
GR 304/**WR 304**	Sustainable Watersheds	3A	3
Select one from the following:			
ESS 211	Foundations in Ecosystem Science		3
LIFE 320	Ecology		3

Select one from the following:			
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
MATH 255	Calculus for Biological Scientists II (GT-MA1)	1B	4
NR 322	Introduction to Geographic Information Systems		4
Select one from the following:			
PH 121	General Physics I (GT-SC1)	3A	5
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
SOCR 240	Introductory Soil Science		4
	Total Credits		**29**
SUMMER			
NR 220	Natural Resource Ecology and Measurements		5
	Total Credits		**5**
JUNIOR			
AREC 342	Water Law, Policy, and Institutions		3
ESS 330	Quantitative Reasoning for Ecosystem Science		3
SOCR 470	Soil Physics		3
SOCR 471	Soil Physics Laboratory		1
STAT 301 or **315**	Introduction to Statistical Methods Statistics for Engineers and Scientists		3
WR 418[2]	Land Use and Water Quality		3
WR 419	Water Quality Laboratory for Wildland Managers		2
Watershed Science Department List selection (select 3 credits from list below)[3]			3
Arts and Humanities		3B	3
Historical Perspectives		3D	3
Social and Behavioral Sciences		3C	3
	Total Credits		**30**
SENIOR			
Select one from the following:			
SOCR 322	Principles of Microclimatology		3
WR 474	Snow Hydrology		3
WR 416[2]	Land Use Hydrology	4B	3
WR 417[2]	Watershed Measurements		3
WR 440	Watershed Problem Analysis	4A,4B,4C	3
WR 486	Watershed Field Practicum		2
Watershed Science Department List selection (select 9 credits from list below)[3]			6~~9~~
Electives[4]			5-7~~2-4~~
	Total Credits		**25-27**
	Program Total Credits:		**120**

Watershed Science Department List

Code	Title	Credits
Earth Sciences		
ATS 350	Introduction to Weather and Climate	2
ATS 351	Introduction to Weather and Climate Laboratory	1
CIVE 322	Basic Hydrology	3
CIVE 413	Environmental River Mechanics	3
CIVE 423	Groundwater Engineering	3
CIVE 425	Soil and Water Engineering	3
CIVE 440	Nonpoint Source Pollution	3
GEOL 452	Hydrogeology	4
GEOL 454	Geomorphology	4
GR 323/NR 323	Remote Sensing and Image Interpretation	3
NR 422	GIS Applications in Natural Resource Management	4
SOCR 322	Principles of Microclimatology	3
SOCR 440	Pedology	4
WR 406	Seasonal Snow Environments	3
WR 474	Snow Hydrology	3
Ecology		
BSPM 445	Aquatic Insects	4
BZ 440	Plant Physiology	3
BZ 441	Plant Physiology Laboratory	2
BZ 471	Stream Biology and Ecology	3
BZ 472	Stream Biology and Ecology Laboratory	1
BZ 474	Limnology	3
CIVE 330	Ecological Engineering	3
ESS 311	Ecosystem Ecology	3
ESS 411	Earth Systems Ecology	3
RS 478	Ecological Restoration	3
Sustainability		
AREC 442	Water Resource Economics	3
ESS 400	Sustainability and Ecosystem Science	3
NR 310	Ecosystem Services and Human Well-Being	3
NR 320	Natural Resources History and Policy	3
NRRT 330	Social Aspects of Natural Resource Management	3
NRRT 362	Environmental Conflict Management	3
SOC 461	Water, Society, and Environment	3

[1] In order to take this course, students may need to obtain a registration override from the appropriate department.

[2] Partially satisfies requirements of the Water Resources Interdisciplinary Studies Program.

[3] Select courses not taken elsewhere in the program from the Watershed Science Department List, for a program minimum total of 9 ~~12~~ credits.

[4] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Natural Sciences **Effective Fall 2016**
Department of Computer Science
BS in Applied Computing Technology
Computing Education Concentration APCT-CPEZ-BS

Reason for Request: The CS department has made substantial improvements in the first three courses in the computer science sequence, replacing, in particular, CS160, CS161, and CS200 with three new courses, CS163/164, CS165, CS220. The goal of these changes is to present students with a sustained intensive programming experience while undergoing mathematics preparation for more theoretical courses. Presently, this theoretical content is mixed with programming instruction throughout the first three courses. It has been found that students are mathematically unprepared for this material this early in the program, and find the courses difficult with continual context switches between programming and theory within each course. This request also shores up the math requirement for this program, allowing only MATH160 as a required math course. MATH141 has been found to be inadequate preparation for more advanced CS classes, in particular, the theoretical aspects of computer science.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
CS 110	Personal Computing		4
~~**CS 160**~~	~~Foundations in Programming~~	~~-~~	~~4~~
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
SPCM 200	Public Speaking		3
Select one course from the following:			
~~**MATH 141**~~	~~Calculus in Management Sciences (GT-MA1)~~	~~1B~~	~~-~~
~~**MATH 155**~~	~~Calculus for Biological Scientists I (GT-MA1)~~	~~1B~~	~~-~~
CS 163	Course CS 163 Not Found	-	4
CS 164	Course CS 164 Not Found	-	4
Biological and Physical Science		3A	7
Global and Cultural Awareness		3E	3
Elective			3
	Total Credits		~~**30**~~ **31**
SOPHOMORE			
~~**CS 161**~~	~~Object-Oriented Problem Solving~~	~~-~~	~~4~~

~~CS 200~~	~~Algorithms and Data Structures~~	~~-~~	~~4~~
CS 270	Computer Organization		4
CS 165	Course CS 165 Not Found	-	4
CS 220	Discrete Structures and their Applications	-	4
EDUC 275	Schooling in the United States (GT-SS3)	3C	3
Select one course from the following:			
STAT 201	General Statistics		3
STAT 204	Statistics for Business Students		3
STAT 301	Introduction to Statistical Methods		3
Arts and Humanities		3B	6
Historical Perspectives		3D	3
Elective			3
	Total Credits		**30**
JUNIOR			
CIS 355[1]	Business Database Systems		3
CS 253	Software Development with C++		4
CT 310	Web Development		4
EDUC 331	Educational Technology and Assessment		2
EDUC 340	Literacy and the Learner		3
EDUC 350	Instruction I-Individualization/Management		3
EDUC 386	Practicum-Instruction I		1
JTC 413	New Communication Technologies and Society	4B	3
CS *** 300-level Computer Science Course			3
Advanced Writing		2	3
	Total Credits		**29**
SENIOR			
CT 320	Network and System Administration		4
EDCT 465	Methods and Materials in Technology Education		3
EDCT 485	Student Teaching	4A,4C	11
EDUC 450	Instruction II-Standards and Assessment		4
EDUC 486E	Practicum: Instruction II		1
EDUC 493A	Seminar: Professional Relations	4C	1
CS 4*** 400-level Computer Science Course[1,2]			4
Electives[3]			2-3
	Total Credits		**30-31**
	Program Total Credits:		**120**

[1] Students may need to obtain a registration override from the appropriate department to take this course.

[2] The 400-level computer science course must be numbered less than 485.

[3] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Natural Sciences **Effective Fall 2016**
Department of Computer Science
BS in Applied Computing Technology
Human Centered Computing Concentration APCT-HCCZ-BS

Reason for Request: The CS department has made substantial improvements in the first three courses in the computer science sequence, replacing, in particular, CS160, CS161, and CS200 with three new courses, CS163/164, CS165, CS220. The goal of these changes is to present students with a sustained intensive programming experience while undergoing mathematics preparation for more theoretical courses. Presently, this theoretical content is mixed with programming instruction throughout the first three courses. It has been found that students are mathematically unprepared for this material this early in the program, and find the courses difficult with continual context switches between programming and theory within each course.

FRESHMAN			
		AUCC	**CREDITS**
CO 150	College Composition (GT-CO2)	1A	3
~~**CS 160**~~	~~Foundations in Programming~~	~~-~~	~~4~~
~~**CS 161**~~	~~Object-Oriented Problem Solving~~	~~-~~	~~4~~
CS 192	First-Year Seminar-Computer Science		2
Select one course from the following:		-	
CS 163	Course CS 163 Not Found	-	4
CS 164	Course CS 164 Not Found	-	4
CS 165	Course CS 165 Not Found	-	4
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
PSY 100	General Psychology (GT-SS3)	3C	3
Biological and Physical Sciences		3A	4
Global and Cultural Awareness		3E	3
Electives[1]			3
	Total Credits		**30**
SOPHOMORE			
~~**CS 200**~~	~~Algorithms and Data Structures~~	~~-~~	~~4~~
CS 253	Software Development with C++		4
CS 220	Discrete Structures and their Applications	-	4
CS 270	Computer Organization		4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
MATH 229	Matrices and Linear Equations		2

PSY 250	Research Methods in Psychology		4
PSY 252	Mind, Brain, and Behavior		3
Advanced Writing		2	3
Biological and Physical Sciences		3A	3
	Total Credits		**31**
JUNIOR			
CS 320	Algorithms--Theory and Practice		3
CS 464	Principles of Human-Computer Interaction	4A,4B,4C	4
CT 310	Web Development		4
Select 3-6 credits from the following:			
STAT 311 & STAT 312	Statistics for Behavioral Sciences I		3 3
OR			
STAT 315	Statistics for Engineers and Scientists	4B	3
Arts and Humanities		3B	3
Historical Perspectives		3D	3
Upper-Division Electives			3
Electives			3-6
	Total Credits		**29**
SENIOR			
CS 410	Introduction to Computer Graphics		4
CS 440	Introduction to Artificial Intelligence	4A,4C	4
PSY 452	Cognitive Psychology		3
PSY 456	Sensation and Perception		3
PSY 453 or 457	Cognitive Psychology Laboratory Sensation and Perception Laboratory		2
Arts and Humanities		3B	3
Upper-Division Electives[1]			6-9
Electives			2-5
	Total Credits		**30**
	Program Total Credits:		**120**

[1] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

College of Natural Sciences **Effective Fall 2016**
Department of Computer Science
Minor in Computer Science CPSQ

Reason for Request: The CS department has made substantial improvements in the first three courses in the computer science sequence, replacing, in particular, CS160, CS161, and CS200 with three new courses, CS163/164, CS165, CS220. The goal of these changes is to present students with a sustained intensive programming experience while undergoing mathematics preparation for more theoretical courses. Presently, this theoretical content is mixed with programming instruction throughout the first three courses. It has been found that students are mathematically unprepared for this material this early in the program, and find the courses difficult with continual context switches between programming and theory within each course.

A minimum grade of C is required in all courses required for the minor, and their prerequisites.

Code	Title	Credits
Lower Division		
~~**CS 160**~~	~~Foundations in Programming~~	~~4~~
~~**CS 161**~~	~~Object-Oriented Problem Solving~~	~~4~~
~~**CS 200**~~	~~Algorithms and Data Structures~~	~~4~~
Select one course from the following:		
CS 163	Course CS 163 Not Found	4
CS 164	Course CS 164 Not Found	4
CS 165	Course CS 165 Not Found	4
CS 220	Discrete Structures and their Applications	4
CS 270	Computer Organization	4
Upper Division		
CS***	Courses numbered 300- or above	12
Program Total Credits		**28**

College of Natural Sciences **Effective Fall 2016**
Department of Mathematics
Minor in Mathematics MATQ

Reason for Request: Allow Chemistry Majors to use the new classes MATH 271/272 towards a minor in mathematics

A minimum grade of C is required in all mathematics, statistics, and computer science courses required for the minor in mathematics.

Code	Title	Credits
Select one group from the following:		
Group A:		
MATH 155	Calculus for Biological Scientists I (GT-MA1)	4
MATH 255	Calculus for Biological Scientists II (GT-MA1)	4
Group B:		
MATH 160	Calculus for Physical Scientists I (GT-MA1)	4

Code	Title	Credits
MATH 161	Calculus for Physical Scientists II (GT-MA1)	4
Group C:		
MATH 160	Calculus for Physical Scientists I (GT-MA1)	4
MATH 271	Course MATH 271 Not Found	4
Upper-division mathematics [1]		9
Electives in computer science, mathematics, or statistics [2]		6-7
Program Total Credits		**23**
Course List		

[1] Courses ending in –80 and –99 cannot be used to satisfy upper-division (300- to 400-level) requirements.

[2] Choose from **MATH 229** or **MATH 261** or MATH 272 or upper-division courses in mathematics, statistics, or computer science. At least 3 credits must be from the upper-division (300- to 400-level) courses.

University Curriculum Committee
January 15, 2016
CONSENT AGENDA

	Course Drops	REQUESTED CHANGE	EFFECTIVE DATE
ACT 310	Financial Statement Analysis	DROP	Fall 2016
ACT 421	Management Control Systems	DROP	Fall 2016
ACT 442	International Accounting	DROP	Fall 2016
ACT 511	Advanced Accounting I	DROP	Fall 2016
FW 692A	Seminar: Fishery Biology	DROP	Fall 2016
FW 696A	Group Study: Fishery Biology	DROP	Fall 2016

Minor Change to Courses

		REQUESTED CHANGE	EFFECTIVE DATE
ANEQ 322	Pet Nutrition	Prerequisite: ANEQ 320 or ~~and~~ ANEQ 345 or ~~and~~ FSHN 350	Fall 2016
Reason for Request:	Students only need one nutrition class for this course, not three as listed. When the original paperwork was submitted for this course, the pre-reqs were inadvertently listed as "and" instead of "or".		
ANEQ 522	Animal Metabolism	Prerequisite: ANEQ 320 or ANEZ 345. ~~CHEM 346 or CHEM 245 and CHEM 246~~	Fall 2016
Reason for Request:	The current pre-reqs limit enrollment of animal and equine science students since many do not take the pre-reqs listed. The Department attempted to require organic chemistry; however, there was no support for this from the Chemistry Department, due to the large number of students in our major. This change would allow a greater number of our students to have access to desired coursework for our two majors.		
BUS 601	Quantitative Business Analysis	BUS 500 or concurrent registration. ~~BUS 601 to 665 - at least 1 course taken after~~	Spring 2016
Reason for Request:	Allows students to take 2 courses concurrently in the first 8 weeks of the Spring semester.		
LGER 301	Oral Communication-German	Offering Term: Fall ~~Spring~~	Spring 2016
Reason for Request:	The terms in which the course is offered need to be updated to bring them in line with the sequencing and offering frequency required by the new Course Graduation Planner.		

LGER 434	Advanced German Culture	Offering Term: Fall ~~, Spring~~ Prerequisite: LGER 355 or LGER 366	Spring 2016
Reason for Request:	The terms in which the course is offered need to be updated to bring them in line with the sequencing and offering frequency required by the new Course Graduation Planner.		
LSPA 300	Reading and Writing for Communication-Spanish	Offering Term: Fall, Spring ~~Every~~ Prerequisite: LSPA 201 or LSPA 230	Spring 2016
Reason for Request:	The terms in which the course is offered need to be updated to bring them in line with the sequencing and offering frequency required by the new Course Graduation Planner.		
SOC 403	Capstone Seminar	Prerequisite: (SOC 210 or (STAT 2** or above) ~~SOC 2**~~) and (SOC 301 or SOC 302) and SOC 311 and (SOC 313 or CS 110)	Fall 2016
Reason for Request:	The department has accepted STAT 2XX or above to fulfill the major's statistics requirement and CS 110 to fulfill the computer methods requirement for some time, but these courses have never been added as acceptable prerequisites, which has caused registration problems for some students.		
SOC 487	Internship	Prerequisite: (SOC 210 or (STAT 2** or above) ~~SOC 2**~~) and (SOC 301 or SOC 302) and SOC 311 and (SOC 313 or CS 110)	Fall 2016
Reason for Request:	The department has accepted STAT 2XX or above to fulfill the major's statistics requirement and CS 110 to fulfill the computer methods requirement for some time, but these courses have never been added as acceptable prerequisites, which has caused registration problems for some students.		
SOC 492	Seminar	Prerequisite: (SOC 210 or (STAT 2** or above) ~~SOC 2**~~) and (SOC 301 or SOC 302) and SOC 311 and (SOC 313 or CS 110)	Fall 2016
Reason for Request:	The department has accepted STAT 2XX or above to fulfill the major's statistics requirement and CS 110 to fulfill the computer methods requirement for some time, but these courses have never been added as acceptable prerequisites, which has caused registration problems for some students.		