

MEMORANDUM

Faculty Senate Approved November 5, 2015

TO: Deans and Chairs
 FROM: Becky Bitter, Sr. Assistant Registrar
 DATE: October 28, 2015
 SUBJECT: Minor Change Bulletin No. 3

The courses listed below reflect the minor curricular changes approved by the catalog editor since approval of the last Minor Change Bulletin. The column to the far right indicates the date each change becomes effective.

Subject	Course Number	New Revise Drop	Current	Proposed	Effective Date
ARCH	201	Revise	Architectural Design I 4 (0-8) Course Prerequisite: ARCH 403 . Introduction to architectural design focusing on composition, conceptual design and principles of organization, scale, proportion, rhythm and 3-D development. Typically offered Fall.	Architectural Design I 4 (0-8) Course Prerequisite: <u>Certified major in Architectural Studies</u> . Introduction to architectural design focusing on composition, conceptual design and principles of organization, scale, proportion, rhythm and 3-D development. Typically offered Fall.	8-16
ARCH	436	Revise	Contemporary Furniture Design 3 (1-4) Course Prerequisite: Certified major in Architecture or Construction Management . Investigation of issues related to the design and fabrication of furniture; students design and fabricate projects in the school shop. Typically offered Fall.	Contemporary Furniture Design 3 (1-4) Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student</u> . Investigation of issues related to the design and fabrication of furniture; students design and fabricate projects in the school shop. Typically offered Fall.	5-16
ARCH	456	Revise	Field Sketching/Journal Keeping 3 (2-2) Course Prerequisite: Certified major in Architecture-or Construction Management. Field-sketching/journal-keeping strategies to facilitate investigation and comprehension of the built environment. Typically offered	Field Sketching/Journal Keeping 3 (2-2) Course Prerequisite: Certified major in Architecture, <u>Interior Design, Landscape Architecture</u> , or Construction Management. Field-sketching/journal-keeping strategies to facilitate investigation and comprehension of the built	5-16

			Summer Session.	environment. Typically offered Summer Session.	
ARCH	490	Revise	Seminar in Architectural Design V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture. Advanced study in architectural design. Typically offered Fall, Spring, and Summer. Cooperative: Open to UI degree-seeking students.	Seminar in Architectural Design V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student.</u> Advanced study in architectural design. Typically offered Fall, Spring, and Summer. Cooperative: Open to UI degree-seeking students.	5-16
ARCH	491	Revise	Seminar in Architectural Communications V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture. Advanced study in graphic communication. Typically offered Fall, Spring, and Summer.	Seminar in Architectural Communications V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student.</u> Advanced study in graphic communication. Typically offered Fall, Spring, and Summer.	5-16
ARCH	492	Revise	Seminar in Architectural History V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture. Advanced study in architectural history. Typically offered Fall, Spring, and Summer.	Seminar in Architectural History V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student.</u> Advanced study in architectural history. Typically offered Fall, Spring, and Summer.	5-16
ARCH	493	Revise	Seminar in Environmental Control V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture or Construction Management. Advanced study in environmental control of buildings. Typically offered Fall, Spring, and Summer.	Seminar in Environmental Control V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student.</u> Advanced study in environmental control of buildings. Typically offered Fall, Spring, and Summer.	5-16
ARCH	494	Revise	Seminar in Urban and	Seminar in Urban and	5-16

			<p>Regional Planning V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture.</p> <p>Advanced study in urban and regional planning. Typically offered Fall, Spring, and Summer.</p>	<p>Regional Planning V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student</u>. Advanced study in urban and regional planning. Typically offered Fall, Spring, and Summer.</p>	
ARCH	496	Revise	<p>Seminar in Computer Applications V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: Certified major in Architecture. Architectural and construction applications of computer graphics, management, computer-aided design. Typically offered Fall, Spring, and Summer.</p>	<p>Seminar in Computer Applications V 1-4 May be repeated for credit; cumulative maximum 4 hours. Course Prerequisite: <u>ARCH 203 with a C or better, I D 203 with a C or better, LND ARCH 263 with a C or better, or graduate student</u>. Architectural and construction applications of computer graphics, management, computer-aided design. Typically offered Fall, Spring, and Summer.</p>	5-16
ARCH	510	Revise	<p>Architectural Design Studio 6 (0-12) Graduate studio experience researching a single topic of architectural relevance (i.e. geology, material science, biological systems engineering). Field trip required. Typically offered Fall.</p>	<p>Summer Graduate Design Studio 6 (0-12) Intensive summer studio focusing on design projects that address prevailing issues in a particular context and locale (regional, national, or international city) outside of Pullman.</p>	5-16
ARCH	511	Revise	<p>Design VIII/Graduate Design Project 6 (0-12) Course Prerequisite: ARCH 403. Studio course divided between urban design and preliminary design on graduate project. Typically offered Spring and Summer.</p>	<p>Graduate Design Studio I 6 (0-12) Graduate studio experience researching a single topic of architectural relevance. Typically offered Spring and Summer.</p>	8-16
ARCH	513	Revise	<p>Graduate Design Project 6 (0-12) Course Prerequisite: ARCH 511; ARCH 515. Final graduate design studio focusing on individualized topics. Typically offered Fall and Spring.</p>	<p>Graduate Design Studio II 6 (0-12) Course Prerequisite: ARCH 511 with a C or better. Graduate studio experience researching a single topic of architectural relevance. Typically offered Fall and Spring.</p>	8-16
ARCH	542	Revise	<p>Issues in Architecture 3 Course Prerequisite: ARCH</p>	<p>Issues in Architecture 3 Examination of issues in</p>	8-16

			525: Examination of issues in architecture related to society, culture, environment, politics, and philosophy. Typically offered Fall.	architecture related to society, culture, environment, politics, and philosophy. Typically offered Fall.	
ARCH	563	Revise	Architectural Structures III 3 Course Prerequisite: ARCH 515 or concurrent enrollment. Wind and seismic loads on architectural structures; high-rise systems; reinforced concrete and masonry structures. Credit not granted for both ARCH 463 and ARCH 563. Offered at 400 and 500 level. Typically offered Fall.	Architectural Structures III 3 Wind and seismic loads on architectural structures; high-rise systems; reinforced concrete and masonry structures. Credit not granted for both ARCH 463 and ARCH 563. Offered at 400 and 500 level. Typically offered Fall.	8-16
ARCH	570	Revise	Advanced Architectural Studio/Laboratory 6 (0-12) In-depth study of design problems relating to cultural, environmental, technological and other issues as related to the student's area of emphasis. Typically offered Fall and Spring.	Advanced Architectural Design Studio I 6 (0-12) <u>Advanced study of design problems relating to culture, environment, technology, urban planning, or other topics.</u> Typically offered Fall and Spring.	8-16
ARCH	571	Revise	Advanced Architectural Studio II 6 (0-12) Course Prerequisite: ARCH 570. Drawing from architectural historical and theoretical research, urban architectural design case study, research in the arts, humanities and social sciences. Typically offered Spring.	Advanced Architectural Design Studio II 6 (0-12) <u>Course Prerequisite: ARCH 570. Advanced study of design problems relating to culture, environment, technology, urban planning, or other topics.</u> Typically offered Spring.	8-16
ARCH	580	Revise	Architecture Internship V 1-4 May be repeated for credit. Course Prerequisite: Graduate student in M Architecture degree program. Placement in an approved industrial, professional, or governmental situation for specialized or general experience. Typically offered Fall and Summer.	Architectural Practicum V 1-4 <u>May be repeated for credit. Course Prerequisite: Graduate student in M Architecture degree program. Internship, travel study, or independent study related to the field of architecture.</u> Typically offered Fall and Summer.	8-16
CE	450	Revise	Hydraulic Engineering Design 3 Course Prerequisite: CE 351 with a C or better; certified major in Civil Engineering. Hydraulic design and planning	Water Resource Engineering Design 3 <u>Course Prerequisite: CE 351 with a C or better; certified major in Civil Engineering.</u> Hydraulic design	8-16

			of facilities associated with gravity controlled and pressurized flow. Cooperative: Open to UI degree-seeking students.	and planning of facilities associated with gravity controlled and pressurized flow. Cooperative: Open to UI degree-seeking students.	
CES / WOMEN ST	489	Revise	[CAPS] Everyday Struggles for Justice and Equality 3 Course Prerequisite: Junior standing. Investigation of everyday realities of racism, sexism, and heterosexism; applied research; communication of findings through new and/or creative media. (Crosslisted course offered as CES 489, WOMEN ST 489).	[CAPS] Everyday Struggles for Justice and Equality 3 Course Prerequisite: <u>CES 201 or WOMEN ST 201</u> ; junior standing. Investigation of everyday realities of racism, sexism, and heterosexism; applied research; communication of findings through new and/or creative media. (Crosslisted course offered as CES 489, WOMEN ST 489).	1-16
COM	561	Revise	Multimedia Content Creation 3 Exploration and application of strategies to communicate ideas clearly, concisely, and effectively through multimedia content.	Multimedia Content Creation 3 Course Prerequisite: <u>Admitted to online masters program in strategic communication.</u> Exploration and application of strategies to communicate ideas clearly, concisely, and effectively through multimedia content.	1-16
COM	562	Revise	Crisis Communication in Global Contexts 3 Prepare, plan, and execute crisis communication and management to protect the continuity of an organization's image and mission.	Crisis Communication in Global Contexts 3 Course Prerequisite: <u>Admitted to online masters program in strategic communication.</u> Prepare, plan, and execute crisis communication and management to protect the continuity of an organization's image and mission.	1-16
COM	563	Revise	Ethics for Professionals 3 The understanding, discussion, and application of key theories of individual and institutional ethics; the articulation and defense of ethical reasoning.	Ethics for Professionals 3 Course Prerequisite: <u>Admitted to online masters program in strategic communication.</u> The understanding, discussion, and application of key theories of individual and institutional ethics; the articulation and defense of ethical reasoning.	1-16
COM	564	Revise	Research Methods for Professionals 3 Understanding the role of research in media and related organizations and its	Research Methods for Professionals 3 Course Prerequisite: <u>Admitted to online masters program in strategic</u>	1-16

			application to organizational decision making through quantitative and qualitative research methods including research design, questionnaire construction, sampling, data collection techniques, and variable measurement.	<u>communication</u> . Understanding the role of research in media and related organizations and its application to organizational decision making through quantitative and qualitative research methods including research design, questionnaire construction, sampling, data collection techniques, and variable measurement.	
COMSTRAT	561	Revise	Persuasion for Professional Communicators 3 Introduction to theories, concepts, strategies, and processes of persuasion and social influence.	Persuasion for Professional Communicators 3 Course <u>Prerequisite: Admitted to online masters program in strategic communication</u> . Introduction to theories, concepts, strategies, and processes of persuasion and social influence.	1-16
COMSTRAT	562	Revise	Creative Media Strategies and Techniques 3 The strategies, processes, procedures and steps involved in creating marketing communications materials for a variety of different media.	Creative Media Strategies and Techniques 3 Course <u>Prerequisite: Admitted to online masters program in strategic communication</u> . The strategies, processes, procedures and steps involved in creating marketing communications materials for a variety of different media.	1-16
COMSTRAT	563	Revise	Professional Digital Content Promotion 3 The application of writing, critical thinking, and persuasion skills to the practice and promotion of PR and advertising in both digital and social media outlets.	Professional Digital Content Promotion 3 Course <u>Prerequisite: Admitted to online masters program in strategic communication</u> . The application of writing, critical thinking, and persuasion skills to the practice and promotion of PR and advertising in both digital and social media outlets.	1-16
COMSTRAT	564	Revise	Consumer Behavior and Brand Development 3 Tactics and strategies for consumer analysis and brand development; skills necessary for uncovering consumer insights to link client objectives, account management, creative development, and media planning.	Consumer Behavior and Brand Development 3 Course <u>Prerequisite: Admitted to online masters program in strategic communication</u> . Tactics and strategies for consumer analysis and brand development; skills necessary for uncovering consumer insights to link client objectives, account management, creative development, and media	1-16

				planning.	
COMSTRAT	565	Revise	Professional Marketing Communication Management and Campaigns 3 An overview of behavior change theories with a focus on strategic marketing campaign design and evaluation; learning to use theory and research to more effectively plan, design, execute and evaluate strategic communication campaigns.	Professional Marketing Communication Management and Campaigns 3 Course <u>Prerequisite: Admitted to online masters program in strategic communication.</u> An overview of behavior change theories with a focus on strategic marketing campaign design and evaluation; learning to use theory and research to more effectively plan, design, execute and evaluate strategic communication campaigns.	1-16
COMSTRAT	702	Revise	Master's Special Problems, Directed Study, and/or Examination V 1-18 May be repeated for credit. Independent research in special problems, directed study, and/or examination credit for students in a non-thesis master's degree program. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 702 credit. S, U grading.	Master's Special Problems, Directed Study, and/or Examination V 1-18 May be repeated for credit. <u>Course Prerequisite: Admitted to online masters program in strategic communication.</u> Independent research in special problems, directed study, and/or examination credit for students in a non-thesis master's degree program. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 702 credit. S, U grading.	1-16
E E	486	Revise	Power Electronics 3 Course Prerequisite: E E 311 with a C or better; E E 321 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Analysis and modeling of power electronics-based converters, steady state operation, converter topologies, non-ideal effects; power supplies; applications. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	Power Electronics 3 Course <u>Prerequisite: E E 361 with a C or better;</u> certified major in Electrical Engineering, Computer Science, or Computer Engineering. Analysis and modeling of power electronics-based converters, steady state operation, converter topologies, non-ideal effects; power supplies; applications. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	1-16
E E	492	Revise	Renewable Energy Sources 3 (2-3) Course Prerequisite: E E 361 with a C or better; E E 362	Renewable Energy Sources 3 (2-3) Course Prerequisite: E E 361 with a C or better; E E 362	1-16

			with a C or better; STAT 360 with a C or better or STAT 443 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Design of electrical generation plants using wind, solar and other renewable energy sources including technical, environmental and economic aspects. Typically offered Fall.	with a C or better or <u>concurrent enrollment</u> ; STAT 360 with a C or better or STAT 443 with a C or better; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Design of electrical generation plants using wind, solar and other renewable energy sources including technical, environmental and economic aspects. Typically offered Fall.	
ENTOM	350	Drop	Pest Management in Organic Agriculture Production Systems 2 Course Prerequisite: BIOLOGY 106 or 372. Principles, methodologies and implementation of arthropod pest suppression in organic cropping systems.	--N/A--	1-16
FS	110	Revise	Introduction to Food Science 3 Chemistry, microbiology, and processing of food and food products; concepts of food preservation, packaging and marketing of foods; world food issues. Field trip required. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Introduction to Food Science 3 Chemistry, microbiology, and processing of food and food products; concepts of food preservation, packaging and marketing of foods; world food issues. Field trip <u>may be</u> required. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-16
FS	302	Revise	[M] Food Processing Lab 1 (0-3) Course Prerequisite: Concurrent enrollment with FS 303. Application of specialized techniques, concepts and practices of food processing. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	[M] Food Processing Lab 1 (0-3) Course Prerequisite: Concurrent enrollment with FS 303. Application of specialized techniques, concepts and practices of food processing. <u>Field trip required.</u> Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-16
FS	303	Revise	Food Processing 3 Course Prerequisite: FS 110 or 220 ; MATH 140 or 171; STAT 212 or concurrent enrollment. Specialized techniques, concepts and practices of food processing. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	Food Processing 3 Course Prerequisite: FS 110; <u>FS 220</u> ; MATH 140 or 171; STAT 212 or concurrent enrollment. Specialized techniques, concepts and practices of food processing. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-16

FS	409 / 509	Revise	<p>Principles of Environmental Toxicology 3 Nature, properties, effects, and detection of toxic substances in the environment and in environmentally exposed species, including humans. Credit not granted for both FS 409 and 509. Recommended preparation: BIOLOGY 102 or 107; CHEM 102; CHEM 105; CHEM 106; STAT 205. Offered at 400 and 500 level. Cooperative: Open to UI degree-seeking students.</p>	<p>Principles of Environmental Toxicology 3 Nature, properties, effects, and detection of toxic substances in the environment and in environmentally exposed species, including humans. Credit not granted for both FS 409 and FS 509. Recommended preparation: BIOLOGY 102 or 107; CHEM 102; CHEM 105; CHEM 106; <u>STAT 212</u>. Cooperative: Open to UI degree-seeking students.</p>	8-16
FS	429 / 529	Revise	<p>Dairy Products 3 Course Prerequisite: CHEM 345; MBIOS 303. Dairy chemistry, microbiology, sanitation, product development and processing from cow to consumer. Credit not granted for both FS 429 and FS 529. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.</p>	<p>Dairy Products 3 Course Prerequisite: CHEM 345; MBIOS 303; <u>FS 303</u>. Dairy chemistry, microbiology, sanitation, product development and processing from cow to consumer. Credit not granted for both FS 429 and FS 529. Typically offered Fall. Cooperative: Open to UI degree-seeking students.</p>	8-16
FS	433	Revise	<p>Food Engineering Lab 1 (0-3) Course Prerequisite: FS 432 or concurrent enrollment. To enhance the learning experience of the students taking FS 432 through laboratories, problem sessions and group discussions. Typically offered Spring. Cooperative: Open to UI degree-seeking students.</p>	<p>Food Engineering Lab 1 (0-3) Course Prerequisite: FS 432 or concurrent enrollment. To enhance the learning experience of the students taking FS 432 through laboratories, problem sessions and group discussions. <u>Field trip required.</u> Typically offered Spring. Cooperative: Open to UI degree-seeking students.</p>	1-17
FS	470 / 570	Revise	<p>Advanced Food Technology 3 Course Prerequisite: FS 302; FS 303. Physical principles of food preservation and recent advances in food technology. Recommended preparation: FS 416; FS 432; FS 460. Offered at 400 and 500 level. Typically offered Spring. Cooperative: Open to UI degree-seeking students.</p>	<p>Advanced Food Technology 3 Course Prerequisite: FS 302; FS 303. Physical principles of food preservation and recent advances in food technology, <u>including process control and control systems.</u> <u>Credit not granted for both FS 470 and FS 570.</u> Recommended preparation: FS 416; FS 432; FS 460. Typically offered Spring. Cooperative: Open to UI</p>	1-17

				degree-seeking students.	
HISTORY	395	Revise	Topics in History 3 May be repeated for credit; cumulative maximum 6 hours. Analytical study of selected historical movements and events.	Topics in History 3 May be repeated for credit; cumulative maximum 6 hours. Analytical study of selected historical movements and events. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
I D	277	Revise	Interior Design Field-Trip 1 May be repeated for credit; cumulative maximum 2 hours. Course Prerequisite: Concurrent enrollment in I D 201. Selected issues in the field of interior design in connection with an organized field trip. Typically offered Fall.	Interior Design Study Tour I 1 May be repeated for credit; cumulative maximum 2 hours. Course Prerequisite: Concurrent enrollment in I D 201. Selected issues in the field of interior design in connection with an organized field trip. Typically offered Fall.	8-16
I D	333	Revise	Interior Design Studio V 4 (1-9) Course Prerequisite: I D 321. Interior design problem-solving grounded in organizational theories. Typically offered Spring.	Interior Design Studio V 4 (1-9) Course Prerequisite: I D 321; <u>DESIGN 397</u> . Interior design problem-solving grounded in organizational theories. Typically offered Spring.	8-16
I D	477	Revise	Interior Design Field-Trip 1 May be repeated for credit; cumulative maximum 2 hours. Course Prerequisite: Certified major in Interior Design. Selected issues in the field of interior design in connection with an organized field trip. Typically offered Fall and Spring.	Interior Design Study Tour II 1 May be repeated for credit; cumulative maximum 2 hours. Course Prerequisite: Certified major in Interior Design. Selected issues in the field of interior design in connection with an organized field trip. Typically offered Fall and Spring.	8-16
I D	490	Revise	Cooperative Education Internship V 2 (0-6) to 12 (0-36) May be repeated for credit; cumulative maximum 12 hours. Off-campus cooperative education internship with business, industry, or government unit. Typically offered Fall, Spring, and Summer.	Cooperative Education Internship V 1 (0-3) to 12 (0-36) May be repeated for credit; cumulative maximum 12 hours. Off-campus cooperative education internship with business, industry, or government unit. Typically offered Fall, Spring, and Summer.	8-16
KINES	380	Revise	Introduction to Exercise Physiology 3 Course Prerequisite: BIOLOGY 251 with a C or better; CHEM 101 with a C or better, or CHEM	Introduction to Exercise Physiology 3 Course Prerequisite: BIOLOGY 251 with a C or better; certified major in Athletic Training,	8-16

			105 with a C or better; certified major in Athletic Training, Health and Fitness, Movement Studies, or Sport Science. Introduction to exercise physiology as it relates to sport, physical training, and performance. Typically offered Fall, Spring, and Summer.	Health and Fitness, Movement Studies, or Sport Science. Introduction to exercise physiology as it relates to sport, physical training, and performance. Typically offered Fall, Spring, and Summer.	
KINES	412	Revise	Strength Training Practicum I 3 (1-8) Course Prerequisite: BIOLOGY 315 with a C or better or KINES 262 with a C or better; KINES 264 with a C or better; KINES 311 with a C or better; KINES 411 with a C or better; certified Strength and Conditioning minor; current CPR/First Aid certification. Clinical experience within the Strength and Conditioning minor, focusing on the basics of lifting and spotting techniques. Typically offered Fall, Spring, and Summer.	Strength Training Practicum I 3 (1-8) Course Prerequisite: BIOLOGY 315 with a C or better or KINES 262 with a C or better; KINES 264 with a C or better; KINES 311 with a C or better; KINES 411 with a C or better <u>or concurrent enrollment</u> ; certified Strength and Conditioning minor; current CPR/First Aid certification. Clinical experience within the Strength and Conditioning minor, focusing on the basics of lifting and spotting techniques. Typically offered Fall, Spring, and Summer.	8-16
MATH	151	Drop	Calculus for Middle School Teachers 3 Course Prerequisite: MATH 106 with a C or better, or ALEKS math placement score of 65%. Differential and integral calculus in relation to middle school mathematics and real world problems through visualization, hands-on activities and technology. Typically offered Fall and Summer.	--N/A--	1-16
MECH	101	Revise	Introduction to Mechanical Engineering 2 Introduction to mechanical engineering profession, engineering problem solving, computers in engineering design methods. Typically offered Fall.	Introduction to Mechanical Engineering 2 Course Prerequisite: <u>MATH 106 and MATH 108, or concurrent enrollment.</u> Introduction to mechanical engineering profession, engineering problem solving, computers in engineering design methods. Typically offered Fall.	8-16
MSE / MATSE	505	Revise	Advanced Materials Science 3 Broad baseline in materials	Advanced Materials Science 3 Broad baseline in materials	1-16

			science including relationships between structure and properties. (Crosslisted course offered as MSE 505, MATSE 505). Typically offered Fall.	science including relationships between structure and properties. (Crosslisted course offered as MSE 505, MATSE 505). Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	
MSE / MATSE	516	Revise	Phase Transformations 3 Thermodynamics, nucleation, interface motion, mechanisms and kinetics of chemical reactions between solid metals and their environment. (Crosslisted course offered as MSE 516, MATSE 516). Typically offered Fall.	Phase Transformations 3 Thermodynamics, nucleation, interface motion, mechanisms and kinetics of chemical reactions between solid metals and their environment. (Crosslisted course offered as MSE 516, MATSE 516). Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
MSE / MATSE	521	Revise	Statistics of Microstructures 3 Stereology, orientation and spatial distributions, percolation, measurement techniques and application to modeling of microstructures. (Crosslisted course offered as MSE 521, MATSE 521). Recommended preparation: MATH 540. Typically offered Spring.	Statistics of Microstructures 3 Stereology, orientation and spatial distributions, percolation, measurement techniques and application to modeling of microstructures. (Crosslisted course offered as MSE 521, MATSE 521). Recommended preparation: MATH 540. Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	1-16
NATRS	446	Revise	[M] Wildlife Habitat Ecology 3 (2-3) The ecology of how wildlife use, respond to, and affect resources in their environment. Typically offered Spring.	[M] Wildlife Habitat Ecology 3 (2-3) <u>Course Prerequisite: SOIL_SCI 368 or instructor permission.</u> The ecology of how wildlife use, respond to, and affect resources in their environment. Typically offered Spring.	1-17
NEP	300	Drop	[M] Professional Preparation 2 Course Prerequisite: Certified major in nutrition and exercise physiology, or admitted to the Master of Science in Coordinated Program in Dietetics, Nutrition, and Exercise Physiology. Standards of practice in dietetics and exercise physiology; healthcare ethics; social and cultural issues; professional writing;	--N/A--	8-16

			career development.		
NEP	505	Drop	Graduate Seminar V 2-3 May be repeated for credit; cumulative maximum 6 hours. Current issues and evaluation of literature related to nutrition, dietetics, exercise physiology practice and research.	--N/A--	1-16
PHIL	201	Revise	[QUAN] [H] Elementary Logic 3 Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, ALEKS math placement score of 40%, or higher level MATH. Core logical concepts and formal syntax, semantics and proof procedures for categorical, propositional, and basic predicate logic. Typically offered Fall, Spring, and Summer.	[QUAN] Introduction to Formal Logic 3 Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, ALEKS math placement score of 40%, or higher level MATH. Core logical concepts and formal syntax, semantics and proof procedures for categorical, propositional, and basic predicate logic. Typically offered Fall, Spring, and Summer.	8-16
PHIL	401 / 501	Revise	Advanced Logic 3 First-order predicate logic plus some metatheory, applications and/or extensions. Credit not granted for both PHIL 401 and PHIL 501. Recommended preparation: PHIL 201. Offered at 400 and 500 level. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Advanced Formal Logic 3 First-order predicate logic plus some metatheory, applications and/or extensions. Credit not granted for both PHIL 401 and PHIL 501. Recommended preparation: PHIL 201. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-16
TCH LRN	317	Revise	Initial Practicum Experience 2 Course Prerequisite: TCH LRN 301. Classroom experience providing observation, reflection and gradual classroom involvement and teaching responsibility. Typically offered Fall and Summer. S, F grading.	Initial Practicum Experience 2 Course Prerequisite: TCH LRN 301. Classroom experience providing observation, reflection and gradual classroom involvement and teaching responsibility. Typically offered Summer. S, F grading.	1-16
TCH LRN	464	Revise	Curriculum, Instruction and Content Literacy Methods 3 Development of curriculum, instruction and content literacy materials and methods for teaching in the secondary school classroom. Typically offered	Curriculum, Instruction and Content Literacy Methods 3 Development of curriculum, instruction and content literacy materials and methods for teaching in the secondary school classroom. Typically offered	1-16

			Fall, Spring, and Summer.	Fall <u>and Spring.</u>	
TCH LRN	465	Revise	Teaching English Language Learners for Secondary Teachers 3 Course Prerequisite: For candidates admitted to teacher education (secondary education). Practical knowledge for teaching ELL students in a variety of instructional contexts. Typically offered Fall, Spring, and Summer.	Teaching English Language Learners for Secondary Teachers 3 Course Prerequisite: For candidates admitted to teacher education (secondary education). Practical knowledge for teaching ELL students in a variety of instructional contexts. Typically offered Fall <u>and Spring.</u>	1-16
TCH LRN	466	Revise	Secondary Methods of Educational Technology 2 (1-2) Course Prerequisite: TCH LRN 317. Integration of technologies for teaching and learning within the 9-12 classrooms; hands-on development of technology enhanced activities and lessons. Typically offered Fall, Spring, and Summer.	Secondary Methods of Educational Technology 2 (1-2) Course Prerequisite: TCH LRN 317. Integration of technologies for teaching and learning within the 9-12 classrooms; hands-on development of technology enhanced activities and lessons. Typically offered Fall <u>and Spring.</u>	1-16
TCH LRN	467	Revise	[M] Adolescence, Community, and School 3 Course Prerequisite: TCH LRN 464; TCH LRN 465; for candidates admitted to teacher education (secondary education). Understanding the socio-cultural dynamics of adolescence and youth cultures and the roles they play in secondary schools. Typically offered Fall, Spring, and Summer.	[M] Adolescence, Community, and School 3 Course Prerequisite: TCH LRN 464; TCH LRN 465; for candidates admitted to teacher education (secondary education). Understanding the socio-cultural dynamics of adolescence and youth cultures and the roles they play in secondary schools. Typically offered <u>Fall and Spring.</u>	1-16