

## MEMORANDUM

TO: Deans and Chairs

FROM: Becky Bitter, Sr. Assistant Registrar

DATE: January 24, 2022

SUBJECT: Minor Change Bulletin No. 8

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	Revise Drop	Current	Proposed	Effective Date
AGTM	314	Revise	<b>Agricultural Power Units and Mobile Electrical Systems 3</b> (2-3) Principles of thermodynamics, engine cycles, transmissions, electrical, starting, braking, steering, suspension systems, differentials and hydraulic systems. Typically offered Fall.	<b>Agricultural Power Units and Mobile Electrical Systems 3</b> (2-3) Principles of thermodynamics, engine cycles, transmissions, electrical, starting, braking, steering, suspension systems, differentials and hydraulic systems. Typically offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	8-22
AGTM	412	Revise	<b>Human and Machinery Risk Management 3</b> <del>Course</del> <del>Prerequisite: Junior standing.</del> History and current status of farm worker injury prevention programs in the US including worker's compensation insurance. Typically offered Spring.	<b>Human and Machinery Risk Management 3</b> History and current status of farm worker injury prevention programs in the US including worker's compensation insurance. Typically offered Spring.	8-22
ASTRONOM	581	Revise	<b>Advanced Topics in Astronomy 3</b> May be repeated for credit; <del>cumulative maximum 12 hours.</del> Advanced topics of current interest in astronomy. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	<b>Advanced Topics in Astronomy 3</b> May be repeated for credit. Advanced topics of current interest in astronomy. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-22
BIO ENG	210	Revise	<b>Bioengineering Analysis 2</b> (1-3) Course Prerequisite: CHE 201 with a C or better; MATH	<b>Bioengineering Analysis 2</b> (1-3) Course Prerequisite: CHE 201 with a C or better; MATH	8-22

			220 or concurrent enrollment. Analytical problem solving, modeling and computer methods for bioengineering applications. Typically offered Spring <del>and Summer</del> .	220 or concurrent enrollment. Analytical problem solving, modeling and computer methods for bioengineering applications. Typically offered Spring.	
<b>BIOLOGY</b>	<b>521</b>	<b>Revise</b>	<b>Quantitative Genetics 3</b> <del>Course Prerequisite: BIOLOGY 519.</del> Fundamentals of quantitative genetics; evolutionary quantitative genetics. Cooperative: Open to UI degree-seeking students.	<b>Quantitative Genetics 3</b> Fundamentals of quantitative genetics; evolutionary quantitative genetics. Cooperative: Open to UI degree-seeking students.	<b>1-22</b>
<b>CPT S</b>	<b>471</b>	<b>Revise</b>	<b>Computational Genomics 3</b> Course Prerequisite: CPT S 223 or 233, with a C or better; CPT S 350 with a C or better; admitted to the major or minor in Computer Science, Computer Engineering, Electrical Engineering, Software Engineering, or Data Analytics. Fundamental algorithms, techniques and applications. Credit not granted for both CPT S 471 and CPT S 571. Offered at 400 and 500 level. Typically offered Spring.	<b>Computational Genomics 3</b> Course Prerequisite: CPT S 223 or 233, with a C or better; CPT S 350 with a C or better <u>or concurrent enrollment</u> ; admitted to the major or minor in Computer Science, Computer Engineering, Electrical Engineering, Software Engineering, or Data Analytics. Fundamental algorithms, techniques and applications. Credit not granted for both CPT S 471 and CPT S 571. Offered at 400 and 500 level. Typically offered Spring.	<b>1-22</b>
<b>CROP SCI / SOIL SCI</b>	<b>506</b>	<b>Revise</b>	<b>Research Presentations 2</b> Learn and practice skills needed to prepare and effectively present scientific information orally to a range of audiences in a variety of formats and technologies. (Crosslisted course offered as CROP SCI 506; SOIL SCI 506). Typically offered Fall.	<b>Research Presentations 2</b> <u>Course Prerequisite: Admission to the Crop Science or Soil Science graduate degree program.</u> Learn and practice skills needed to prepare and effectively present scientific information orally to a range of audiences in a variety of formats and technologies. (Crosslisted course offered as CROP SCI 506; SOIL SCI 506). Typically offered Fall.	<b>1-22</b>
<b>CS</b>	<b>121</b>	<b>Revise</b>	<b>Program Design and Development 4 (3-3) Course</b> Prerequisite: MATH 171 with a C or better <del>or concurrent enrollment</del> . Formulation of problems and top-down design	<b>Program Design and Development 4 (3-3) Course</b> Prerequisite: MATH <u>108, 171, 172, 182, 201, 202, 206, or 220, each</u> with a C or better, <u>or a minimum ALEKS math</u>	<b>1-22</b>

			of programs in a modern structured language for their solution on a digital computer. Typically offered Fall.	<u>placement score of 78%</u> . Formulation of problems and top-down design of programs in a modern structured language for their solution on a digital computer. Typically offered Fall.	
CS	223	Revise	<b>Advanced Data Structures 3</b> Course Prerequisite: CS 122 with a C or better; <del>CS 166 with a C or better</del> . Advanced data structures, object oriented programming concepts, and program design principles. Typically offered Fall.	<b>Advanced Data Structures 3</b> Course Prerequisite: CS 122 with a C or better. Advanced data structures, object oriented programming concepts, and program design principles. Typically offered Fall.	1-22
CS	251	Revise	<b>C Programming for Engineers 4 (3-3)</b> Course Prerequisite: MATH 171 with a C or better or <del>concurrent enrollment</del> . Introduction to the C programming language and application to engineering problem solving; introduction to data structures, sorting and searching; laboratory use of integrated development environments and debugging tools. Typically offered Spring.	<b>C Programming for Engineers 4 (3-3)</b> Course Prerequisite: <u>MATH 108, 171, 172, 182, 201, 202, 206, or 220, each with a C or better, or a minimum ALEKS math placement score of 78%</u> . Enrollment not allowed if credit already earned for CS 261. Introduction to the C programming language and application to engineering problem solving; introduction to data structures, sorting and searching; laboratory use of integrated development environments and debugging tools. Typically offered Spring.	1-22
CS	260	Revise	<b>Computer Organization 3</b> Course Prerequisite: CS 122 with a C or better. Introduction to computer architecture, data representation, design and analysis of instruction sets, implementation of machine instructions, virtual memory and multiprocessing. Typically offered Fall.	<b>Computer Organization 3</b> Course Prerequisite: CS 122 with a C or better; <u>CS 166 with a C or better</u> . Introduction to computer architecture, data representation, design and analysis of instruction sets, implementation of machine instructions, virtual memory and multiprocessing. Typically offered Fall.	1-22
CS	261	Revise	<b>C and Assembly Language Programming 3</b> Course Prerequisite: CS <del>260</del> with a C or better. C language concepts, professional practices and C	<b>C and Assembly Language Programming 3</b> Course Prerequisite: CS <u>122</u> with a C or better. <u>Enrollment not allowed if credit already earned for CS</u>	1-22

			programming; module linkage; assembly language concepts and programming. Typically offered Spring.	<u>251</u> . C language concepts, professional practices and C programming; module linkage; assembly language concepts and programming. Typically offered Spring.	
CS	317	Revise	<b>Automata and Formal Languages 3 Course</b> Prerequisite: CS 122 with a C or better; CS 166 with a C or better. Finite automata, regular sets, pushdown automata, context-free language, Turing machines and the halting problem. Typically offered Fall.	<b>Automata and Formal Languages 3 Course</b> Prerequisite: CS 122 with a C or better; CS 166 with a C or better or <u>MATH 301 with a C or better</u> . Finite automata, regular sets, pushdown automata, context-free language, Turing machines and the halting problem. Typically offered Fall.	1-22
CS	360	Revise	<b>Systems Programming 4 (3-3) Course</b> Prerequisite: CS 251 or 261 with a C or better. Implementation of systems programs, concepts of computer operating systems; laboratory experience in using operating system facilities. Typically offered Spring.	<b>Systems Programming 4 (3-3) Course</b> Prerequisite: <u>CS 122 with a C or better</u> ; CS 251 or 261 with a C or better. Implementation of systems programs, concepts of computer operating systems; laboratory experience in using operating system facilities. Typically offered Spring.	1-22
CS	425	Revise	<b>Digital Forensics 3 Course</b> Prerequisite: CS 360 with a C or better. Use of computers in the investigation of criminal and civil incidents in which computers or computer technology play a significant or interesting role. Typically offered Spring.	<b>Digital Forensics 3 Course</b> Prerequisite: CS 360 with a C or better or <u>concurrent enrollment</u> . Use of computers in the investigation of criminal and civil incidents in which computers or computer technology play a significant or interesting role. Typically offered Spring.	1-22
CS	426	Revise	<b>Applied Systems Security 3 Course</b> Prerequisite: <del>CS 224 with a C or better; CS 261 with a C or better; admitted to the major in Computer Science.</del> Foundations, theory, and practice of non-cryptographic computer security; design of secure software; adding security to existing systems; other contemporary topics in security. Typically offered Fall.	<b>Applied Systems Security 3 Course</b> Prerequisite: <u>CS 360 with a C or better or concurrent enrollment</u> . Foundations, theory, and practice of non-cryptographic computer security; design of secure software; adding security to existing systems; other contemporary topics in security. Typically offered Fall.	1-22

CS	440	Revise	<p><b>Artificial Intelligence 3 Course</b> Prerequisite: CS <del>320</del> with a C or better <del>or concurrent enrollment</del>; STAT 212 with a C or better or STAT 360 with a C or better. Knowledge representation and automated problem solving; theory and application of agent programming. Typically offered Spring.</p>	<p><b>Artificial Intelligence 3 Course</b> Prerequisite: CS <u>223</u> with a C or better; STAT 212 with a C or better or STAT 360 with a C or better. Knowledge representation and automated problem solving; theory and application of agent programming. Typically offered Spring.</p>	1-22
CS	458	Revise	<p><b>Mobile Application Development 3 Course</b> Prerequisite: CS 360 with a C or better <del>or concurrent enrollment</del>. Design and development of mobile applications; introduction to mobile application frameworks, including user interface, sensors, event handling, data management and network communication. Typically offered Spring.</p>	<p><b>Mobile Application Development 3 Course</b> Prerequisite: CS <u>223, 224, or 360, each</u> with a C or better. Design and development of mobile applications; introduction to mobile application frameworks, including user interface, sensors, event handling, data management and network communication. Typically offered Spring.</p>	1-22
E M	580	Revise	<p><b>Quality Control and Reliability 3 Course</b> Prerequisite: E M 503. Quality analysis, modeling process, product quality, statistical process control, process capability studies; sampling concepts, reality models, predictions, design testing. Credit not granted for both E M 480 and E M 580. Recommended preparation: an undergraduate course in statistics. Offered at 400 and 500 level.</p>	<p><b>Quality Control and Reliability 3</b> Quality analysis, modeling process, product quality, statistical process control, process capability studies; sampling concepts, reality models, predictions, design testing. Credit not granted for both E M 480 and E M 580. Recommended preparation: an undergraduate course in statistics. Offered at 400 and 500 level.</p>	1-22
FRENCH	203	Revise	<p><b>Third Semester 4 (3-2) Course</b> Prerequisite: FRENCH 102 with a C or better, or WSU language placement exam score of 3 or higher. Grammar review and further development of speaking, listening, reading, and writing skills. Not open to native speakers except with</p>	<p><b>Third Semester 4 Course</b> Prerequisite: FRENCH 102 with a C or better, or WSU language placement exam score of 3 or higher. Further development of speaking, listening, reading, and writing skills. Not open to native speakers except with permission. Typically offered Fall and Spring.</p>	8-22

			permission. Typically offered Fall and Spring.		
<b>FRENCH</b>	<b>204</b>	<b>Revise</b>	<b>Fourth Semester 4 (3-2)</b> Course Prerequisite: FRENCH 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>Fourth Semester 4 Course</b> Prerequisite: FRENCH 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>8-22</b>
<b>GERMAN</b>	<b>203</b>	<b>Revise</b>	<b>Third Semester 4 (3-2) Course</b> Prerequisite: GERMAN 102 with a C or better, or WSU language placement exam score of 3 or higher. Further development of speaking, listening, reading, and writing skills. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>Third Semester 4 Course</b> Prerequisite: GERMAN 102 with a C or better, or WSU language placement exam score of 3 or higher. Further development of speaking, listening, reading, and writing skills. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>8-22</b>
<b>GERMAN</b>	<b>204</b>	<b>Revise</b>	<b>Fourth Semester 4 (3-2)</b> Course Prerequisite: GERMAN 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>Fourth Semester 4 Course</b> Prerequisite: GERMAN 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>8-22</b>
<b>KIN ACTV</b>	<b>119</b>	<b>Revise</b>	<b>Aerobic Dance 1 (0-2)</b> May be repeated for credit; cumulative maximum 4 hours. Typically offered Fall and Spring. S, F grading.	<b>Cardio Dance 1 (0-2)</b> May be repeated for credit; cumulative maximum 4 hours. Typically offered Fall and Spring. S, F grading.	<b>1-22</b>
<b>MATH</b>	<b>216</b>	<b>Revise</b>	<b>Discrete Structures 3 Course</b> Prerequisite: MATH 108 with a C or better, OR MATH 140, 171, 172, 182, or MATH 202 concurrent enrollment. Discrete mathematics, trees, graphs, elementary logic, and combinatorics with application	<b>Discrete Structures 3 Course</b> Prerequisite: MATH 108 with a C or better, OR MATH 140, 171, 172, 182, or 202 (concurrent enrollment <u>also allowed</u> ). Discrete mathematics, trees, graphs, elementary logic, and combinatorics with	<b>1-22</b>

			to computer science. Recommended preparation: Programming course. Typically offered Fall, Spring, and Summer.	application to computer science. Recommended preparation: Programming course. Typically offered Fall, Spring, and Summer.	
<b>PHYSICS</b>	<b>581</b>	<b>Revise</b>	<b>Advanced Topics in Physics 3</b> May be repeated for credit; <del>cumulative maximum 12 hours.</del> Topics of current interest in advanced physics. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	<b>Advanced Topics in Physics 3</b> May be repeated for credit. Topics of current interest in advanced physics. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	<b>8-22</b>
<b>PSYCH</b>	<b>333</b>	<b>Revise</b>	<b>Abnormal Psychology 3</b> Course Prerequisite: PSYCH 105. <del>Problems of abnormality from traditional and evolving points of view; types, therapies, outcomes, preventive techniques.</del> Typically offered Fall, Spring, and Summer.	<b>Fundamentals of Psychological Disorders 3</b> Course Prerequisite: PSYCH 105. <u>An introduction to psychological disorders, their diagnoses, contributing factors, and treatments.</u> Typically offered Fall and Spring.	<b>8-22</b>
<b>PSYCH</b>	<b>511</b>	<b>Revise</b>	<b>Experimental Design, T-Tests, and Analysis of Variance 3</b> Course Prerequisite: Ph.D. student in Psychology <del>or Business Administration.</del> Parametric, nonparametric, repeated-measures, and multivariate ANOVA; planned comparisons; confidence intervals and power analysis; experimental design and variants. Typically offered Fall.	<b>Experimental Design, T-Tests, and Analysis of Variance 3</b> Course Prerequisite: Ph.D. student in Psychology. Parametric, nonparametric, repeated-measures, and multivariate ANOVA; planned comparisons; confidence intervals and power analysis; experimental design and variants. Typically offered Fall.	<b>8-22</b>
<b>PSYCH</b>	<b>512</b>	<b>Revise</b>	<b>Non-Experimental Designs, Correlation, and Regression 3</b> Course Prerequisite: Ph.D. student in Psychology <del>or Business Administration.</del> Simple and multiple correlation and regression; time-series analysis; factor analysis; field research and quasi-experimental design. Typically offered Spring.	<b>Non-Experimental Designs, Correlation, and Regression 3</b> Course Prerequisite: Ph.D. student in Psychology. Simple and multiple correlation and regression; time-series analysis; factor analysis; field research and quasi-experimental design. Typically offered Spring.	<b>8-22</b>
<b>SHS</b>	<b>545</b>	<b>Revise</b>	<b>Autism Spectrum Disorder 2</b> <del>Course Prerequisite: SHS 542.</del> Overview and discussions of the characteristics, causes,	<b>Autism Spectrum Disorder 2</b> Overview and discussions of the characteristics, causes,	<b>1-22</b>

			assessments, and interventions for autism spectrum disorder.	assessments, and interventions for autism spectrum disorder.	
<b>SPANISH</b>	<b>203</b>	<b>Revise</b>	<b>Third Semester 4</b> ( <del>3-2</del> ) Course Prerequisite: SPANISH 102 with a C or better, or WSU language placement exam score of 3 or higher. Further development of speaking, listening, reading, and writing skills. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>Third Semester 4</b> Course Prerequisite: SPANISH 102 with a C or better, or WSU language placement exam score of 3 or higher. Further development of speaking, listening, reading, and writing skills. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>8-22</b>
<b>SPANISH</b>	<b>204</b>	<b>Revise</b>	<b>Fourth Semester 4</b> ( <del>3-2</del> ) Course Prerequisite: SPANISH 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>Fourth Semester 4</b> Course Prerequisite: SPANISH 203 with a C or better, or WSU language placement exam score of 5 or higher. Continued practice in spoken and written language; selected texts in a cultural context. Not open to native speakers except with permission. Typically offered Fall and Spring.	<b>8-22</b>