## MEMORANDUM

## Faculty Senate Approved March 27, 2014

TO: Deans and Chairs
FROM: Becky Bitter, Assistant Registrar
DATE: March 13, 2014
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 <br> Number | New Revise Drop | Current | Proposed | Effective <br> Date |
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| COM | 490 | Revise | Web Design and Usability 3 Course Prerequisite: COM 320; COM 420; COMSOC 324; COMSTRAT 309; certified major in Communication. Web design with an emphasis or usercentered design and usability. | Web Design and Usability 3 Course Prerequisite: COM 320; COM 420; COMSOC 324 or COMSTRAT 383; COMSTRAT 309; certified major in Communication. Web design with an emphasis or usercentered design and usability. | 8-14 |
| COMSOC | 480 | Revise | Science Communication Campaigns 3 Course Prerequisite: COMSOC 324; COMSTRAT 309; COMSTRAT 310; certified major in Communication. Develop an effective communication campaign to address a science communication challenge. | Science Communication <br> Campaigns 3 Course <br> Prerequisite: COMSOC 324 or <br> COMSTRAT 383; COMSTRAT <br> 309; COMSTRAT 310; certified <br> major in Communication. <br> Develop an effective communication campaign to address a science communication challenge. | 8-14 |
| COMSTRAT | 383 | Revise | Media Strategies and Techniques for Public Relations 3 Course Prerequisite: COM 210; COM 295 or 300; certified major in Communications. Development of creative content for persuasive public relations campaigns through different media. | Media Strategies and Techniques for Public Relations 3 Course Prerequisite: COM 210; COM 295 or 300 with a C or better; certified major in Communications. Development of creative content for persuasive public relations campaigns through different media. | 8-14 |
| COMSTRAT | 485 | Revise | [M] Public Relations | [M] Public Relations | 8-14 |


|  |  |  | Management and Campaigns 3 Course Prerequisite: COMSTRAT 309 or 409; COMSTRAT 312; COMSTRAT 381; certified major in Communication. Application of public relations principles, management, persuasion theory and research methods to public relations issues. | Management and Campaigns 3 Course Prerequisite: COMSTRAT 309 or 409; COMSTRAT 312; COMSTRAT 381 or COMSTRAT 383; certified major in Communication. Application of public relations principles, management, persuasion theory and research methods to public relations issues. |  |
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| CS | 317 | Revise | Automata and Formal Languages 3 Course Prerequisite: CS 122 with a C or better; CS 216 with a C or better. Finite automata, regular sets, pushdown automata, contextfree language, Turing machines and the halting problem. | Automata and Formal <br> Languages 3 Course <br> Prerequisite: CS 122 with a C or better; CS 216 with a C or better; certified major in Computer Science. Finite automata, regular sets, pushdown automata, contextfree language, Turing machines and the halting problem. | 8-14 |
| CS | 320 | Revise | [M] Fundamentals of Software Engineering 3 Course <br> Prerequisite: CS 224 with a C or better; CS 216 with a C or better; ENGLISH 402 with a C or better or concurrent enrollment. Introduction to software engineering; requirements analysis, definition and specification; software process models; prototyping; architecture; object-oriented design with UML. | [M] Fundamentals of Software Engineering 3 Course <br> Prerequisite: CS 224 with a C or better; CS 216 with a C or better; ENGLISH 402 with a C or better or concurrent enrollment; certified major in Computer Science. Introduction to software engineering; requirements analysis, definition and specification; software process models; prototyping; architecture; object-oriented design with UML. | 8-14 |
| CS | 330 | Revise | Numerical Computing 3 Course Prerequisite: CS 251 with a C or better, or CS 261 with a C or better; MATH 172 or 182 with a C or better; MATH 220 with a C or better. Power and limitation of numerical solutions; design, analysis and implementation of numerical algorithms; visualization and rendering. | Numerical Computing 3 Course Prerequisite: CS 251 with a C or better, or CS 261 with a C or better; MATH 172 or 182 with a C or better; MATH 220 with a C or better; certified major in Computer Science. Power and limitation of numerical solutions; design, analysis and implementation of numerical algorithms; visualization and rendering. | 8-14 |
| CS | 351 | Revise | Introduction to Database | Introduction to Database | 8-14 |


|  |  |  | Systems 3 Course Prerequisite: CS 223 with a C or better; CS 224 with a C or better. Introduction to database concepts, data models, database languages, database design, implementation issues. | Systems 3 Course Prerequisite: CS 223 with a C or better; CS 224 with a C or better; certified major in Computer Science. Introduction to database concepts, data models, database languages, database design, implementation issues. |  |
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| CS | 355 | Revise | Programming Language <br> Design 3 Course Prerequisite: CS 223 with a C or better; CS 224 with a C or better. Design concepts of high-level programming languages; survey of existing languages, experience using some languages. | Programming Language Design 3 Course Prerequisite: CS 223 with a C or better; CS 224 with a C or better; certified major in Computer Science. Design concepts of high-level programming languages; survey of existing languages, experience using some languages. | 8-14 |
| CS | 360 | Revise | Systems Programming 4 (3-3) Course Prerequisite: CS 224 with a C or better; CS 251 with a C or better, or CS 261 with a C or better. Implementation of systems programs, concepts of computer operating systems; laboratory experience in using operating system facilities. | Systems Programming 4 (3-3) Course Prerequisite: CS 224 with a C or better; CS 251 with a C or better, or CS 261 with a C or better; certified major in Computer Science. <br> Implementation of systems programs, concepts of computer operating systems; laboratory experience in using operating system facilities. | 8-14 |
| CS | 443 | Revise | Human-Computer Interaction <br> 3 Course Prerequisite: Junior standing. Introduction to the field of human-computer interaction; understanding the system user; user-centered design and evaluation techniques including heuristic evaluation and usability testing. | Human-Computer Interaction 3 Course Prerequisite: Certified major in Computer Science; junior standing. Introduction to the field of human-computer interaction; understanding the system user; user-centered design and evaluation techniques including heuristic evaluation and usability testing. | 8-14 |
| CS | 450 | Revise | Design and Analysis of Algorithms 3 Course Prerequisite: CS 223 with a C or better; STAT 360 with a C or better. Analysis of data structures and algorithms; computational complexity and design of efficient data-handling procedures. | Design and Analysis of Algorithms 3 Course Prerequisite: CS 223 with a C or better; STAT 360 with a C or better; certified major in Computer Science. Analysis of data structures and algorithms; computational complexity and design of efficient data-handling | 8-14 |


|  |  |  |  | procedures. |  |
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| E M | 570 | Revise | Six Sigma Quality Management 3 Graduate-level coumterpart of E M 470; additional requirements. | Six Sigma Quality Management 3 Quality management programs, quality assurance, statistical quality control concepts and product design reliability. | 5-14 |
| ENGR | 420 | Revise | Multidisciplinary Engineering Design I 3 (1-4) Course Prerequisite: Certified engineering major; senior standing. Needs analysis and conceptualization of technological products and business plan for target market; multidisciplinary team development. Gredit not granted for both ENGR 420 and ENGR 520. Offered at 400 and 500 level. | Multidisciplinary Engineering Design I 3 (1-4) Course Prerequisite: Certified engineering major; senior standing. Needs analysis and conceptualization of technological products and business plan for target market; multidisciplinary team development. | 1-15 |
| ENGR | 520 | Drop | Multidisciplinary Engineering Design I 3 (1-4) Needs analysis and conceptualization of technological products and business plan for target market; multidisciplinary team development. Credit not granted for both ENGR 420 and ENGR 520. Offered at 400 and 500 level. | --N/A-- | 1-15 |
| ENGR | 521 | Drop | [T] [M] Multidisciplinary Engineering Design II 3 (1-4) Prototype solution developed and evaluated and business plan completed; presentation to stake holders; team development and assessment. Credit not granted for both ENGR 421 and ENGR 521. Offered at 400 and 500 level. | --N/A- | 1-15 |
| ENVR SCI | 482 | Drop | Special Topics: Study Abroad V 1-15 May be repeated for credit. S, F grading. | --N/A-- | 8-14 |
| ENVR SCI | 594 | Drop | Environmental and Natural Resources Issues and Ethics 3 Ethical systems applied to natural resources; issues of | --N/A-- | 8-14 |


|  |  |  | professionalism and ethics in natural resource management. (Crosslisted course offered as NATRS 594, ENVR SCI 594). Cooperative: Open to UI degreeseeking students. |  |  |
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| MBIOS | 568 | Revise | Advanced Topics in Molecular Biosciences V 1-3 May be repeated for credit. Gourse Prerequisite: MBIOS 513 or concurrent enrollment. Recent research in selected areas of molecular biosciences. | Advanced Topics in Molecular Biosciences V 1-3 May be repeated for credit. Recent research in selected areas of molecular biosciences. | 8-14 |
| NATRS | 416 | Drop | Fisheries Management 4 (3-3) <br> Techniques employed in sampling and application of principles toward managing recreational and commercial aquatic resources. (Crosslisted course offered as NATRS 416, BIOLOGY 416). Recommended NATRS 411. Recommended preparation: NATRS 411. Cooperative: Open to UI degreeseeking students. | --N/A-- | 8-14 |
| NATRS | 421 | Drop | Fish Health Management 4 (3- <br> 3) Course Prerequisite: MBIOS 101. Epidemiology, prevention, diagnostics, and treatment of infectious and non-infectious diseases of free-living and confined finfish and shellfish. | --N/A-- | 8-14 |
| NATRS | 488 | Drop | Senior Thesis in Natural Resources V 3-6 May be repeated for credit; cumulative maximum 6 hours. Course Prerequisite: Certified major in Natural Resource Sciences; senior standing. | --N/A-- | 8-14 |
| SOIL SCI/ <br> ENVR SCI | 468/568 | Revise | ArcGIS and Geospatial <br> Analysis 4 (2-6) Course Prerequisite: SOIL SCI 368. Geographic information systems applied to analysis of landscape data; maps, geographic coordinate systems and projections, geodatabases. | GIS Spatial Analysis 4 (2-6) <br> Course Prerequisite: SOIL SCI 368. Geographic information systems applied to analysis of landscape data; maps, geographic coordinate systems and projections, geodatabases. (Crosslisted course offered as | 5-14 |


|  | (Crosslisted course offered as <br> SOIL SCI 468, SOIL SCI 568, | SOIL SCI 468, SOIL SCI 568, <br> ENVR SCI 486, ENVR SCI <br> 586). Offered at 400 and 500 <br> level. | ENVR SCI 486, ENVR SCI <br> level. Offered at 400 and 500 |
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