## MEMORANDUM

TO: Deans and Chairs
FROM: Becky Bitter, Sr. Assistant Registrar
DATE: March 22, 2016
SUBJECT: Minor Change Bulletin No. 9
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 Date |
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| BIOLOGY | 106 | Revise | [BSCI] [B] Introductory Biology: Organismal Biology 4 (3-3) One semester of a two semester sequence (BIOLOGY $106 / 107$ or BIOLOGY 107/106) for science majors and pre-professional students. Biology of organisms; plants, animals, ecology and evolution. Typically offered Fall, Spring, and Summer. | [BSCI] [B] Introductory Biology: Organismal Biology 4 (3-3) Course Prerequisite: One of the following -a minimum ALEKS math placement score of $40 \%$, MATH 100 with an S, MATH 101 with a C or better, BIOLOGY 103 with a C or better, BIOLOGY 102, BIOLOGY 120, or a 3-credit biology course with a lab. One semester of a two semester sequence (BIOLOGY 106/107 or BIOLOGY 107/106) for science majors and pre-professional students. Biology of organisms; plants, animals, ecology and evolution. Typically offered Fall, Spring, and Summer. | 8-16 |
| BIOLOGY | 354 | Revise | Human Anatomy for Health Occupations 4 (3-3) Course Prerequisite: BIOLOGY 107; CHEM 345; certified major in Biology. History and anatomy of humans with non-cadaverbased laboratory utilizing preserved and histological specimens, models and software. | Human Anatomy for Health Occupations 4 (3-3) Course Prerequisite: BIOLOGY 107; CHEM 102 or 345 . History and anatomy of humans with non-cadaver-based laboratory utilizing preserved and histological specimens, models and software. | 8-16 |
| BIOLOGY | 432 | Revise | [M] Biology of Amphibians and Reptiles 4 (3-3) <br> Characteristics, evolution, and systematics; patterns of distribution; adaptive strategies; interactions between humans | [M] Biology of Amphibians and Reptiles 4 (3-3) Course Prerequisite: BIOLOGY 106; BIOLOGY 372 or NATRS 300. <br> Characteristics, evolution, and systematics; patterns of distribution; | 8-16 |


|  |  |  | and amphibians and reptiles. Typically offered Even Years Spring. | adaptive strategies; interactions between humans and amphibians and reptiles. Field trips may be required. Typically offered Even Years - Spring. |  |
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| BIOLOGY | 462 | Revise | Community Ecology 3 Course Prerequisite: BIOLOGY 106. Assembly, essential properties, levels of interactions, succession, and stability of natural communities; emphasizes an experimental approach to community investigation. Credit not granted for both BIOLOGY 462 and BIOLOGY 562. <br> Recommended preparation: BIOLOGY 372. Offered at 400 and 500 level. Typically offered Fall. | Community Ecology 3 Course Prerequisite: BIOLOGY 372 with a C or better. Assembly, essential properties, levels of interactions, succession, and stability of natural communities; emphasizes an experimental approach to community investigation. Credit not granted for both BIOLOGY 462 and BIOLOGY 562. | 8-16 |
| CES | 308 | Revise | [SSCI][M]Cultural Politics of Sport 3 A critical examination of US sports through class, race, gender, sexuality, nationalism and criminality. | [SSCI] Cultural Politics of Sport 3 A critical examination of US sports through class, race, gender, sexuality, nationalism and criminality. | 8-16 |
| E E | 341 | Revise | Signals and Systems 3 Course Prerequisite: E E 321 with a C or better; STAT 360 with a C or better or concurrent enrollment, or STAT 443 with a C or better or concurrent enrollment; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Discrete and continuous-time signals, LTI systems, convolution, sampling, Fourier transform, filtering, DFT, amplitude and freqweney modulation. Typically offered Fall and Spring. | Signals and Systems 3 Course <br> Prerequisite: E E 321 with a C or better; STAT 360 with a C or better or concurrent enrollment, or STAT 443 with a C or better or concurrent enrollment; certified major in Electrical Engineering, Computer Science, or Computer Engineering. Discrete and continuous-time signals, LTI systems, convolution, sampling, Fourier transform, filtering, DFT, amplitude modulation, probability applications. Typically offered Fall and Spring. | 1-17 |
| FIN | 325 | Revise | Introduction to Financial Management 3 Course Prerequisite: ACCTG 231; MGTOP 215; ECONS 101; certified major or minor in the College of Business. Time value of money, financial | Introduction to Financial Management 3 Course Prerequisite: ACCTG 231; ECONS 101 or 198; MGTOP 215, STAT 212, STAT 360 , or STAT 370; certified major (any college) with 60 semester hours. Time value of | 8-16 |


|  |  |  | securities and markets, financial decision making, valuation techniques, and cost of capital. Typically offered Fall, Spring, and Summer. | money, financial securities and markets, financial decision making, valuation techniques, and cost of capital. Typically offered Fall, Spring, and Summer. |  |
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| FRENCH | 410 | Revise | [CAPS] [T] French Film in Translation 3 (2-2) Course Prerequisite: Junior standing. In depth study of French cinema integrating its history, techniques, methods, and global impact. Taught in English. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students. | [CAPS] French Film in Translation 3 (2-2) Course Prerequisite: Junior standing. In depth study of French cinema integrating its history, techniques, methods, and global impact. Taught in English. French majors will complete academic work requirements in the target language. Typically offered Fall and Spring. Cooperative: Open to UI degreeseeking students. | 8-16 |
| KINES | 485 | Revise | Kinesiology Internship V 10-12 Course Prerequisite: Certified major in Athletic Training, Health and Fitness, or Movement Studies; limited enrollment to those with greater tham 90 credits; by interview only. Supervised practicum in fitness or health agency or business. Typically offered Fall and Spring. S, F grading. | Kinesiology Internship V 10-12 Course Prerequisite: Certified major in Sport Science; completed with a C or better all course work for the Sport Science major; completion of all UCORE requirements. Supervised practicum in fitness or health agency or business. KINES 485 cannot be taken concurrently with other coursework. Students must comply with all internship policies and procedures. Typically offered Fall, Spring, and Summer. S, F grading. | 8-16 |
| MATH | 205 | Drop <br> MATH <br> X-List | [QUAN] [N] Statistical <br> Thinking 3 Course <br> Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or a minimum ALEKS math placement score of $45 \%$. Scientific explanation; correlations and causality; presenting statistical evidence; graphical and numerical methods; chance and gambling; the bell-shaped distribution. (Crosslisted course offered as STAT 205, MATH 205). Typically offered Fall, Spring, and Summer. | --N/A-- | 8-16 |
| MATH | 212 | Drop <br> MATH <br> X-List | [QUAN] [N] Introduction to Statistical Methods 4 (3-2) Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or | --N/A-- | 8-16 |


|  |  |  | MATH 106, 108, 140, 171, 201, or a minimum ALEKS math placement score of $45 \%$. Introduction to descriptive and inferential statistics: t-tests, chisquare tests, one-way ANOVA, simple linear regression and correlation. (Crosslisted course offered as STAT 212, MATH 212). Typically offered Fall, Spring, and Summer. |  |  |
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| MATH | 360 | Drop MATH X-List | Probability and Statistics 3 Course Prerequisite: MATH 172 or MATH 182. Probability models, sample spaces, random variables, distributions, moments, comparative experiments, tests, correlation and regression in engineering applications. (Crosslisted course offered as STAT 360, MATH 360). Credit not granted for both MATH/STAT 360 and MATH 370. Typically offered Fall, Spring, and Summer. Cooperative: Open to UI degree-seeking students. | --N/A-- | 8-16 |
| MATH | 370 | Drop <br> MATH <br> X-List | Introductory Statistics for Engineers 3 Course Prerequisite: MATH 172 or MATH 182. Probability axioms, probability models, random variables, expectation, confidence intervals, hypothesis testing, analysis of variance, control charts. (Crosslisted course offered as STAT 370, MATH 370). Credit not granted for both MATH/STAT 360 and MATH/STAT 370. Typically offered Fall, Spring, and Summer. | --N/A-- | 8-16 |
| MATH | 423 | Drop <br> MATH <br> X-List | Statistical Methods for Engineers and Scientists 3 Hypothesis testing; linear, multilinear, and nonlinear regression; analysis of variance for designed experiments; quality control; statistical computing. Credit not normally | --N/A-- | 8-16 |


|  |  |  | granted for both STAT 423 and 430. (Crosslisted course offered as STAT 423, MATH 423). <br> Recommended preparation: One 3-hour 300-level STAT course. Offered at 400 and 500 level. Typically offered Spring. |  |  |
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| MATH | 443 | Drop <br> MATH <br> X-List | Applied Probability 3 Course Prerequisite: MATH 172 or MATH 182; MATH 220 or MATH 230. Axioms of probability theory; random variables; expectation; generating function; law of large numbers; central limit theorem; Markov chains. (Crosslisted course offered as STAT 443, MATH 443). <br> Typically offered Fall. | --N/A-- | 8-16 |
| MATH | 446 | Drop MATH X-List | Statistical Applications in Insurance 3 Course <br> Prerequisite: STAT/MATH 443. Introduction to the application of mathematics and statistics to the insurance field with a focus on actuarial science. (Crosslisted course offered as STAT 446, MATH 446,). Typically offered Spring. | --N/A-- | 8-16 |
| MATH | 447 | Drop <br> MATH <br> X-List | Introduction to Time Series <br> Analysis 3 Course Prerequisite: STAT/MATH 423. <br> Introduction to the analysis and application of time series including AR, MA, ARMA, and ARIMA models. (Crosslisted course offered as STAT 447, MATH 447). Typically offered Fall. | --N/A-- | 8-16 |
| MGTOP | 340 | Revise | Operations Management 3 <br> Course Prerequisite: MGTOP 215; certified major or minor in the College of Business. <br> Management of operations, emphasizing production planning, inventory control, scheduling, forecasting, quality management, supply chain management, and facility layout and location. Typically offered | Operations Management 3 Course Prerequisite: MGTOP 215, STAT 212, STAT 360, or STAT 370; certified major (any college) with 60 semester hours. Management of operations, emphasizing production planning, inventory control, scheduling, forecasting, quality management, supply chain management, and facility layout and location. Typically offered Fall, | 8-16 |


|  |  |  | Fall, Spring, and Summer. | Spring, and Summer. |  |
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| MGTOP | 470 | Revise | Business Modeling with Spreadsheets 3 Course Prerequisite: MATH 202 or 220; MIS 250; certified major or minor in the College of Business. Use of advanced spreadsheet tools and Visual Basic programming to build and analyze mathematical models of business problems. Typically offered Fall and Spring. | Business Modeling with Spreadsheets 3 Course Prerequisite: MATH 140, 171, 172, or 202. Use of advanced spreadsheet tools and Visual Basic programming to build and analyze mathematical models of business problems. Typically offered Fall and Spring. | 8-16 |
| STAT | 205 | Revise | [QUAN] [N] Statistical <br> Thinking 3 Course <br> Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or a minimum ALEKS math placement score of $45 \%$. Scientific explanation; correlations and causality; presenting statistical evidence; graphical and numerical methods; chance and gambling; the bell-shaped distribution. <br> (Crosslisted course offered as <br> Typically offered Fall, Spring, and Summer. | [QUAN] [N] Statistical Thinking 3 Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or a minimum ALEKS math placement score of $45 \%$. Scientific explanation; correlations and causality; presenting statistical evidence; graphical and numerical methods; chance and gambling; the bell-shaped distribution. Typically offered Fall, Spring, and Summer. | 8-16 |
| STAT | 212 | Revise | [QUAN] [N] Introduction to Statistical Methods 4 (3-2) Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or MATH 106, 108, 140, 171, 201, or a minimum ALEKS math placement score of $45 \%$. Introduction to descriptive and inferential statistics: t-tests, chisquare tests, one-way ANOVA, simple linear regression and correlation. (Grosslisted course 212). Typically offered Fall, Spring, and Summer. | [QUAN] [N] Introduction to Statistical Methods 4 (3-2) Course Prerequisite: MATH 101 with a C or better, MATH 103 with a C or better, or MATH 106, 108, 140, 171, 201, or a minimum ALEKS math placement score of $45 \%$. Introduction to descriptive and inferential statistics: t-tests, chisquare tests, one-way ANOVA, simple linear regression and correlation. Typically offered Fall, Spring, and Summer. | 8-16 |
| STAT | 360 | Revise | Probability and Statistics 3 Course Prerequisite: MATH 172 or MATH 182. Probability models, sample spaces, random variables, distributions, | Probability and Statistics 3 Course Prerequisite: MATH 172 or MATH 182. Probability models, sample spaces, random variables, distributions, moments, comparative | 8-16 |


|  |  |  | moments, comparative experiments, tests, correlation and regression in engineering applications. (Crosslisted course offered as STAT 360, MATH 360). Credit not granted for both MATH STAT 360 and MATH 370. Typically offered Fall, Spring, and Summer. Cooperative: Open to UI degree-seeking students. | experiments, tests, correlation and regression in engineering applications. Credit not granted for both STAT 360 and STAT 370. Typically offered Fall, Spring, and Summer. Cooperative: Open to UI degree-seeking students. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| STAT | 370 | Revise | Introductory Statistics for Engineers 3 Course <br> Prerequisite: MATH 172 or MATH 182. Probability axioms, probability models, random variables, expectation, confidence intervals, hypothesis testing, analysis of variance, control charts. (Grosslisted course offered as STAT 370, MATH 370). Credit not granted for both MATH MATH/STAT 370. Typically offered Fall, Spring, and Summer. | Introductory Statistics for Engineers 3 Course Prerequisite: MATH 172 or MATH 182. Probability axioms, probability models, random variables, expectation, confidence intervals, hypothesis testing, analysis of variance, control charts. Credit not granted for both STAT 360 and STAT 370. Typically offered Fall, Spring, and Summer. | 8-16 |
| STAT | 423 | Revise | Statistical Methods for Engineers and Scientists 3 Hypothesis testing; linear, multilinear, and nonlinear regression; analysis of variance for designed experiments; quality control; statistical computing. Credit not normally granted for both STAT 423 and 430. (Crosslisted course offered as STAT 423, MATH 423). <br> Recommended preparation: One 3-hour 300-level STAT course. Offered at 400 and 500 level. Typically offered Spring. | Statistical Methods for Engineers and Scientists 3 Hypothesis testing; linear, multilinear, and nonlinear regression; analysis of variance for designed experiments; quality control; statistical computing. Credit not normally granted for both STAT 423 and STAT 430. Credit not granted for both STAT 423 and STAT 523. Recommended preparation: One 3-hour 300-level STAT course. Typically offered Spring. | 8-16 |
| STAT | 443 | Revise | Applied Probability 3 Course Prerequisite: MATH 172 or MATH 182; MATH 220 or MATH 230. Axioms of probability theory; random variables; expectation; generating function; law of large numbers; central limit | Applied Probability 3 Course Prerequisite: MATH 172 or MATH 182; MATH 220 or MATH 230. Axioms of probability theory; random variables; expectation; generating function; law of large numbers; central limit theorem; Markov chains. Typically offered | 8-16 |

$\left.\begin{array}{|l|c|l|l|l|l|}\hline & & & & \begin{array}{l}\text { theorem; Markov chains. } \\ \text { (Grosslisted course offered as } \\ \text { STAT 443, MATH 443). } \\ \text { Typically offered Fall. }\end{array} & \text { Fall. }\end{array}\right]$

