M E M O R A N D U M

Faculty Senate approved April 4, 2024

TO: Deans and Chairs

FROM: Becky Bitter, Sr. Assistant Registrar

DATE: April 2, 2024

SUBJECT: Minor Change Bulletin No.11

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
BIO ENG	**325**	**Revise**	**[M] Introduction to Bioengineering Research and Clinical Instrumentation** 2 (1-3) ~~Course Prerequisite: MATH 315; MBIOS 303 with a C or better or concurrent enrollment; PHYSICS 202 and 212 with a C or better.~~ Principles of measurement systems for bioengineering applications, data analysis, and troubleshooting. Typically offered Fall.	**[M] Introduction to Bioengineering Research and Clinical Instrumentation** 2 (1-3) Course Prerequisite: MATH 315 with a C or better; MBIOS 303 with a C or better or concurrent enrollment; PHYSICS 202 and 212, each with a C or better. Principles of measurement systems for bioengineering applications, data analysis, and troubleshooting. Typically offered Fall.	**8-24**
BIO ENG	**350**	**Revise**	**Introduction to Cellular Bioengineering** 3 ~~Course Prerequisite: MATH 315 with a C or better; admitted to the major in Bioengineering.~~ Integrating cellular biology and engineering science by applying quantitative engineering principles for development of cellular-based materials, diagnostic devices and sensor designs. Typically offered Fall.	**Introduction to Cellular Bioengineering** 3 Course Prerequisite: BIO ENG 315 with a C or better; BIO ENG 325 with a C or better; admitted to the major in Bioengineering. Integrating cellular biology and engineering science by applying quantitative engineering principles for development of cellular-based materials, diagnostic devices and sensor designs. Typically offered Fall.	**8-24**
BIOLOGY / WGSS	**307**	**Revise**	**[DIVR] ~~Biology of Women~~** 3 Course Prerequisite: BIOLOGY 102 or 106. Biological basis of sex and its	**[DIVR] Biology of Sex and Gender** 3 Course Prerequisite: BIOLOGY 102 or 106. Biological basis of sex and its relationship to	**8-24**

			relationship to body function, women and health care, and the impact of social and cultural perspectives on the experience of being female. (Crosslisted course offered as BIOLOGY 307, WGSS 307.)	body function, women and health care, and the impact of social and cultural perspectives on the experience of being female. (Crosslisted course offered as BIOLOGY 307, WGSS 307.)	
CHINESE / ASIA / JAPANESE	**311**	**Revise**	**[M] ~~Great Asian Directors~~** 3 (2-3) ~~Focused study of two prominent Asian film directors.~~ Taught in English.	**[M] Studies in East Asian Film** 3 (2-3) Variable content seminar. In-depth study of East Asian cinema that brings together the analysis of cinematography, cultural, and sociopolitical backgrounds, and the impact and influences within an international context. Taught in English. (Crosslisted course offered as CHINESE 311, JAPANESE 311, ASIA 311).	**8-24**
ED RES	**571**	**Revise**	**Doctoral Dissertation Preparation** 3 Conceptualization and development of a structured dissertation prospectus; socializes students to academic culture. ~~Typically offered Fall Semester~~.	**Doctoral Dissertation Preparation** 3 Conceptualization and development of a structured dissertation prospectus; socializes students to academic culture. Typically offered Summer Session.	**5-24**
MATH	**111**	**Revise**	**Mathematics Tutorial for MATH 201** 1 ~~Course Prerequisite: Concurrent enrollment MATH 107.~~ Student-centered group tutorial focusing on skill improvement for success in MATH 201. S, F grading.	**Mathematics Tutorial for MATH 201** 1 Student-centered group tutorial focusing on skill improvement for success in MATH 201. Typically offered Fall and Spring. S, F grading.	**8-24**
MATH	**303**	**Revise**	**[M] Geometry for the Middle School Teacher** 3 ~~Course Prerequisite: MATH 252.~~ Topics in 2D and 3D geometry including technology-based reasoning and exploration, deductive arguments, transformational and proportional reasoning, and non-Euclidean geometries.	**[M] Geometry for the Middle School Teacher** 3 Course Prerequisite: MATH 252 with a C or better. Topics in 2D and 3D geometry including technology-based reasoning and exploration, deductive arguments, transformational and proportional reasoning, and non-Euclidean geometries. Typically offered Fall.	**8-24**
MATH	**351**	**Revise**	**Algebraic Thinking for the Middle School Teacher** 3	**Algebraic Thinking for the Middle School Teacher** 3 Course	**8-24**

			~~Course Prerequisite: MATH 252 with a C or better.~~ Algebraic reasoning, classes of functions, translation among models, analytical rule, tables of data, context and coordinate graphs.	Prerequisite: MATH 252 with a C or better, or MATH 301 or concurrent enrollment. Algebraic reasoning, classes of functions, translation among models, analytical rule, tables of data, context and coordinate graphs. Typically offered Spring.	
MATH	**352**	**Revise**	**Probability and Data Analysis for Middle School Teachers** 3 ~~Course Prerequisite: MATH 251 and 252; or STAT 360.~~ Probability and statistics in relation to middle school mathematics and real world problems through visualization, hands-on activities, and technology.	**Probability and Data Analysis for Middle School Teachers** 3 Course Prerequisite: MATH 252 with a C or better, or STAT 360 with a C or better. Probability and statistics in relation to middle school mathematics and real world problems through visualization, hands-on activities, and technology. Typically offered Spring.	**8-24**
MATH	**416**	**Revise**	**Numerical Simulations for Probabilistic Models** 3 ~~Course Prerequisite: STAT 360; CPT S 121, CPT S 251, or MATH 300.~~ Efficient generation of random variables; statistical analysis and validation techniques; variance reduction; Markov Chain Monte Carlo methods; applications include complex systems, financial models, and Bayesian computation. Credit not granted for both MATH 416 and MATH 516. Required preparation must include probability and statistics and programming experience. Offered at 400 and 500 level. Cooperative: Open to UI degree-seeking students.	**Numerical Simulations for Probabilistic Models** 3 Course Prerequisite: STAT 360; CPT S 121, CPT S 215, or MATH 300. Efficient generation of random variables; statistical analysis and validation techniques; variance reduction; Markov Chain Monte Carlo methods; applications include complex systems, financial models, and Bayesian computation. Credit not granted for both MATH 416 and MATH 516. Required preparation must include probability and statistics and programming experience. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	**8-24**
STAT	**212**	**Revise**	**[QUAN] Introduction to Statistical Methods** 4 (3-2) ~~Course Prerequisite: MATH 101, 103, 105, or 251, each with a C or better, or credit for MATH 106, 108, 140, 171, 201, 202, or a minimum ALEKS math placement score~~	**[QUAN] Introduction to Statistical Methods** 4 (3-2) Course Prerequisite: MATH 101, 103, 105, or 251, each with a C or better, or credit for MATH 106, 108, 140, 171, 201, 202, 252, or a minimum ALEKS math placement score of 45%.	**8-24**

			~~of 45%.~~ Introduction to descriptive and inferential statistics: t-tests, chi-square tests, one-way ANOVA, simple linear regression and correlation.	Introduction to descriptive and inferential statistics: t-tests, chi-square tests, one-way ANOVA, simple linear regression and correlation. Typically offered Fall, Spring, and Summer.	
STAT / DATA	**435**	**Revise**	**[M] Statistical Modeling for Data Analytics** 3 (2-2) ~~Course Prerequisite: STAT 360.~~ Multiple linear regression with model selection, dealing with multicolinearity, assessing model assumptions, the LASSO, ridge regression, elastic nets, Loess smoothing, logistic regression, Poisson regression, and the application of the bootstrap to regression modeling. (Crosslisted course offered as STAT 435, DATA 435).	**[M] Statistical Modeling for Data Analytics** 3 (2-2) Course Prerequisite: STAT 360 or STAT 370, either with a C or better. Multiple linear regression with model selection, dealing with multicolinearity, assessing model assumptions, the LASSO, ridge regression, elastic nets, Loess smoothing, logistic regression, Poisson regression, and the application of the bootstrap to regression modeling. (Crosslisted course offered as STAT 435, DATA 435). Typically offered Fall.	**8-24**
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 theorem; Markov chains. Typically offered Fall.	**Applied Probability** 3 Course Prerequisite: MATH 172 or MATH 182; MATH 220, MATH 225, or MATH 230. Axioms of probability theory; random variables; expectation; generating function; law of large numbers; central limit theorem; Markov chains. Typically offered Fall.	**8-24**
VET MICR	**800**	**Revise**	**Doctoral Research, Dissertation, and/or Examination** V 1-18 May be repeated for credit. ~~Course Prerequisite: Admitted to the Veterinary Science PhD program.~~ Independent research and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit.	**Doctoral Research, Dissertation, and/or Examination V** 1-18 May be repeated for credit. Independent research and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit. S, U grading.	**5-24**

			Typically offered Fall, Spring, and Summer. S, U grading.		
VET PATH	**800**	**Revise**	**Doctoral Research, Dissertation, and/or Examination** V 1-18 May be repeated for credit. ~~Course Prerequisite: Admitted to the Veterinary Science PhD program.~~ Independent research and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit. Typically offered Fall, Spring, and Summer. S, U grading.	**Doctoral Research, Dissertation, and/or Examination** V 1-18 May be repeated for credit. Independent research and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit. S, U grading.	**5-24**
WRITE	**311**	**Revise**	**Writing for Admission and Scholarship Applications** 1 May be repeated for credit; cumulative maximum 3 credits. ~~Strategies for drafting and polishing application statements using context, reflection, and peer review; focuses on competitive admission and scholarship writing. (Formerly offered as WRIT 311.)~~	**Writing for Admission and Scholarship Applications** 1 May be repeated for credit; cumulative maximum 3 credits. Strategies for writing personal statements using rhetorical inquiry, reflection, and peer review; focuses on professional/graduate school and scholarship applications. Typically offered Fall and Spring.	**8-24**