COLLEGE OF ARTS AND SCIENCES

COURSE AND CURRICULUM CHANGES

Amended
approved at the College Course and Curriculum Meeting

March 17, 2011
212 Eisenhower Hall

4:00 p.m.

Undergraduate/Graduate
Expedited

Contact Person: Joe Aistrup
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No units outside the college will be affected

Please provide the sponsors of a proposal change with any information regarding fiscal or programmatic impact on your department, program or students.

EXPEDITED COURSE PROPOSALS
Courses Numbered 000-599

Art

FROM: ART 285 – Illustration 1. (3) ~~II~~. Exploration of various applied drawing/painting/collage techniques and how they relate to illustration and layout. Various traditional and digital media will be utilized. Pr:~~ ART 201.~~

TO: ART 285 – Illustration 1. (3) I, II. Exploration of various applied drawing/painting/collage techniques and how they relate to illustration and layout. Various traditional and digital media will be utilized. Pr.: ART 100.

RATIONALE: Remove a prerequisite class that is no longer offered and add the correct prerequisites. Correct semesters when class offered.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: ART 298 – Concentration Admission Procedure. (0) ~~I, II.~~ The preparation and display of a student's own creative work, upon completion of the Department of Art 24-credit-hout core. The concentration admission procedure occurs after student selection of an area of concentration within the BFA art major format.

TO: ART 298 – Concentration Admission Procedure. (0) Fine Arts will do admission reviews both fall and spring, Graphic Design and Digital Media only in the spring. The preparation and display of a student's own creative work, upon completion of the Department of Art 24-credit-hour core. The concentration admission procedure occurs after student selection of an area of concentration within the BFA art major format.

RATIONALE: Correct the catalog to reflect new graphic design area admission.

IMPACT: None

EFFECTIVE DATE: Spring 2012

FROM: ART 310 – Graphic Design Studio 1. (3) I, II. Development and preparation of design concepts for application to the printing process. (Black and white and color.) Pr.: ~~ART 201, 290.~~

TO: ART 310 – Graphic Design Studio 1. (3) I, II. Development and preparation of design concepts for application to the printing process. (Black and white and color.) Pr.: ART 290, Instructor's permission.

RATIONALE: Remove a prerequisite class that is no longer offered.

IMPACT: None.

EFFECTIVE DATE: Fall 2011

FROM: ART 400 – Computer Imaging in Graphic Design. (3) I, II. Exploration of computer imaging through the use of image processing, page layout, and design concept. ~~Note: Two hours lecture, four hours lab a week. Pr.: Art 290 and 310.~~

TO: ART 400 – Computer Imaging in Graphic Design. (3) I, II. Exploration of computer imaging through the use of image processing, page layout, and design concept. Studio class. Pr.: ART 298 in Graphic Design or Digital Media, 290 and 310.

RATIONALE: Clarify prerequisites and remove faulty note description.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: ART 576 – Advanced Typography. (3) I, II, ~~S.~~ Typographic theory and use exploring formal and informal structures with an analysis of historic styles. Multipage layouts emphasized. ~~Note: Six hours lab.~~ Pr.: ~~ART 205, ART 290 and ART 400.~~

TO: ART 576 – Advanced Typography. (3) I, II. Typographic theory and use exploring formal and informal structures with an analysis of historic styles. Multipage layouts emphasized. Studio Class. Pr.: ART 290, ART 310, Art 400.

RATIONALE: Remove a prerequisite class that is no longer offered. Changes in description of the course to update it with current practices or terminology. Update terms when course is offered.

IMPACT: None.

EFFECTIVE DATE: Fall 2011

FROM: ART 580 – Graphic Design Senior Studio. (3) I, II, ~~S~~. Directed senior thesis project, portfolio and resume preparation. Selected topics in design. Note: ~~Six hours lab. May be repeated once. Pr.: Instructor permission, ART 576.~~

TO: ART 580 – Graphic Design Senior Studio. (3) I, II. Directed senior thesis project, portfolio and resume preparation. Selected topics in design. Studio Class. Pr.: Instructor permission, ART 575, 576.

RATIONALE: Update prerequisites and remove faulty note description. Update the terms when class is offered.

IMPACT: None

EFFECTIVE DATE: Fall 2011

Division of Biology

FROM: BIOL 340 – Structure and Function of the Human Body. (8) I, II. Anatomy and Physiology of the organ systems of the human body. Laboratory includes physiology experiments, study of anatomy from human cadavers, dissection experience, x-rays, and slide work. Pr.: ~~BIOL 198 taken at K-State (with a C grade or better) or transferred introductory biology credit plus at least one of the following introductory natural science courses taken at K-State with a C grade or better: CHM 110 (with CHM 111), CHM 210, PHYS 113, KIN 220, or any K-State biology course that has BIOL 198 as a prerequisite.~~

TO: BIOL 340 - Structure and Function of the Human Body. (8) I, II. Anatomy and Physiology of the organ systems of the human body. Laboratory includes physiology experiments, study of anatomy from human cadavers, dissection experience, x-rays, and slide work. Pr.: Cumulative GPA of 2.75 or better; BIOL 198 taken at K-State (with a B grade of better) or transferred introductory biology credit plus at least one of the following introductory natural science courses, taken at K-State, with a B grade or better: CHM 110 (with CHM 111), CHM 210, PHYS 113, or any K-State biology course that has BIOL 198 as a prerequisite.

RATIONALE: The criteria used for admitting students into the class have changed slightly to ensure that students are better prepared for success in the class. This change will align the instructor's criteria with the undergraduate catalog listing to eliminate confusion for students and their advisors.

EFFECTIVE DATE: Fall 2011

FROM: BIOL 365 – Practicum in Biology. (1-4) I, II. ~~Experimental approaches to learning biology through teaching.~~ Pr.: Permission of instructor and credit with superior performance in the course in which the student will be involved.

TO: BIOL 365 – Practicum in Biology. (1-4) I, II, S. Supervised experience as a teaching assistant in biology courses. Approximately 3 hours of commitment per week is expected for each credit hour earned. Pr.: Permission of instructor and credit with superior performance in the course in which the student will be involved.

RATIONALE: The course description has been modified to clarify course purpose and expectations. Additionally, the course will be offered in fall, spring, and summer semesters to allow students to be assistants in our summer-taught biology courses.

EFFECTIVE DATE: Fall 2011

DROP: BIOL 397 – Topics in Biology. (1-6) I, II, S. Pr.: Consent of Instructor.

RATIONALE: The undergraduate level Topics in Biology course is currently offered under three catalog numbers, BIOL 397, 495, and 697. Students do not typically enroll in BIOL 397, and if BIOL 397 is removed, the remaining two topics sections will be sufficient for student and/or instructor demand.

EFFECTIVE DATE: Fall 2011

FROM: BIOL 433 – ~~Wildlife Conservation~~. (3) II. An introduction to the ecological and management principles associated with the fields of fisheries, wildlife, and conservation biology. Topics include population ecology and assessment, resource management, and environmental legislation. Pr.: BIOL 201.

TO: BIOL 433 – Wildlife and Fisheries Conservation. Pr.: Permission of instructor and credit with superior performance in the course in which the student will be involved.

RATIONALE: Changing the course name from Wildlife Conservation to Wildlife and Fisheries Conservation better describes the course material covered.

EFFECTIVE DATE: Spring 2012

FROM: BIOL 495 – Topics in Biology. (1-6) I, II. Pr.: Consent of instructor.

TO: BIOL 495 – Topics in Biology. (1-6) I, II. Supervised independent study project and/or special course offering in an area of faculty expertise. Pr.: Consent of instructor.

RATIONALE: A course description has been added to clarify course purpose.

EFFECTIVE DATE: Fall 2011

FROM: BIOL 541 – Cell Biology. (3) II. Structure and function of cells and subcellular components. A molecular understanding of membranes and cellular physiology will be emphasized. Pr.: BIOL 450 and CHM 350.

TO: BIOL 541 – Cell Biology. (3) I, II. Structure and function of cells and subcellular components. A molecular understanding of membranes and cellular physiology will be emphasized. Pr.: BIOL 450 and CHM 350.

RATIONALE: This course has been taught in both the fall and spring semesters for several semesters now to accommodate larger enrollment. This change will update the undergraduate catalog to align it with current practices.

EFFECTIVE DATE: Fall 2011

Journalism and Mass Communications

FROM: MC 221 – ~~Advertising Writing.~~ (3) I, II, S. ~~Fundamentals of writing for the various media to solve advertising problems. Setting communication goals within the context of writing to persuade and inform mass audiences.~~ Pr.: Passing score in JMC composition skills test, 2.5 GPA upon completion of 12 or more credit hours and completion of MC 110 & MC 120.

TO: MC 221 – Advertising Strategy & Writing. (3) I, II, S. Writing for the various media to reach or achieve advertising objectives. Setting communication goals within the context of writing to persuade and inform mass audiences. Pr.: Passing score in JMC composition skills test, 2.5 GPA upon completion of 12 or more credit hours and completion of MC 110 & MC 120.

RATIONALE: To bring the course title and description in line with the course content which is evolving to reflect the role of strategy in strategic communication and current professional practices.

IMPACT: None

EFFECTIVE DATE: Fall 2011

DROP: MC 561 – Global Culture & the Internet. (3) Intersession Only. Examination of the impact of Western influences through Internet communication and technology on the shaping of a global culture; includes issues of commercialism, capitalism, colonialism and tribalism and conflicts created by cultural classes.

RATIONALE: Course is no longer being offered.

EFFECTIVE DATE: Fall 2011

Women's Studies

FROM: WOMST 480 – ~~Women & Environmentalism.~~ (3) II. Seminar. ~~This course examines the philosophical intersections among women, nature, and environmentalist activism. By examining a variety of subjects including ecofeminism, deep ecology, voluntary simplicity, environmental justice, and sustainable living, this course examines how all forms of oppression and domination – gender, race/ethnicity, economic, and environmental – are interconnected.~~

TO: WOMST 480 – Seminar in Gender, Environment & Justice. (3) II. Examines the philosophical, historical, and material aspects of the human/nature relationships and the intersection of gender, race/ethnicity, class and global location with environment and environmental justice.

RATIONALE: Changes in the title and description of the course are being updated to reflect changes in terminology and scope (e.g. "gender" rather than "women")

IMPACT: the only anticipated impact would be for the Natural Resources and Environmental Science Program and the Nonviolence Program. WOMST 480 Women & Environmentalism is cross listed with both programs.

EFFECTIVE DATE: Spring 2012

EXPEDITED COURSE PROPOSALS
Courses Numbered 600-999

Division of Biology

FROM: BIOL 622 – Cellular and Developmental Biology of the Nervous System. (3) ~~I. in even years~~. An introduction to the cellular and molecular biology and embryology of developing brains and nervous systems of vertebrates and some model invertebrates. Pr.: Two courses in biology.

TO: BIOL 622 – Cellular and Developmental Biology of the Nervous System. (3) II. . An introduction to the cellular and molecular biology and embryology of developing brains and nervous systems of vertebrates and some model invertebrates. Pr.: Two courses in biology.

RATIONALE: The course covers a very active research area in biology. Thus, the frequency of the course offering will be increased from once every two years to once every year. The switch in semesters from Fall to Spring fits the teaching schedule of the instructor.

EFFECTIVE DATE: Spring 2012

FROM: BIOL 687 - Microbial Ecology. (3) II, in odd years. The ecology of aquatic and terrestrial microorganisms in their natural environment. Pr.: ~~BIOL 455.~~

TO: BIOL 687 - Microbial Ecology. (3) II, in odd years. The ecology of aquatic and terrestrial microorganisms in their natural environment. Pr.: BIOL 455 or BIOL 529.

RATIONALE: The instructor requires that students have taken either BIOL 455 or BIOL 529 as prerequisites to this class. This change is to correct the prerequisite in the catalog.

EFFECTIVE DATE: Spring 2013

FROM: BIOL 697 – Topics in Biology. (1-6) I, II, S. Pr.: Consent of instructor.

TO: BIOL 697 – Topics in Biology. (1-6) I, II, S. Special course offering in an area of faculty expertise and/or supervised independent study project. Pr.: Consent of instructor.

RATIONALE: A course description has been added to clarify course purpose.

EFFECTIVE DATE: Fall 2011

FROM: BIOL 698 – Problems in Biology. (1-8) I, II, S. Pr.: Consent of instructor.

TO: BIOL 698 – Problems in Biology. (1-8) I, II, S. Undergraduate research project pursued under the direction of a faculty mentor. A minimum of 45 hours of research effort is expected over the semester for each credit hour the student is enrolled. Pr.: Consent of instructor.

RATIONALE: A course description has been added to clarify course purpose and expectations.

EFFECTIVE DATE: Fall 2011

FROM: BIOL 699 – Undergraduate Seminar in Biology. (1) I, II. Pr.: Consent of instructor.

TO: BIOL 699 – Undergraduate Seminar in Biology. (1) I, II. Attendance at seminars or journal clubs with topics of a biological nature. A summary and personal reflection on each meeting is submitted for course credit. Pr.: Consent of instructor.

RATIONALE: A course description has been added to clarify course purpose and expectations.

EFFECTIVE DATE: Fall 2011

Journalism and Mass Communication

DROP: MC 675 – International Advertising. (3) I. Overview of issues and challenges associated with advertising in a global environment, including cultural and economic differences, regulatory issues, and ethical and social responsibilities. Pr.: MC 110 or instructor permission.

RATIONALE: Course is no longer being offered.

EFFECTIVE DATE: Fall 2011

Kinesiology

FROM: KIN 655 – Fitness Promotion. (3) I. The study of the implementation and promotion of preventive health programs for populations at work, hospitals, and community fitness settings. Pr.: ~~KIN 310 and KIN 335.~~

TO: KIN 655 - Fitness Promotion. (3) I. The study of the implementation and promotion of preventive health programs for populations at work, hospitals, and community fitness settings. Pr.: Grade of C or higher in KIN 310, 335, 345.

RATIONALE: Change in prerequisites to coincide with other KIN courses.

EFFECTIVE DATE: Fall 2011

Statistics

FROM: STAT 710 – Sample Survey Methods. (2) I, in even years. Design, conduct, and interpretation of sample surveys. Pr.:~~STAT 702 or STAT 703.~~

TO: STAT 710 – Sample Survey Methods. (2) I, in even years. Design, conduct, and interpretation of sample surveys. Pr.: STAT 510 or 770.

RATIONALE: Higher level or pre-requisites provides the necessary background for STAT 710.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 716 – Nonparametric Statistics. (2) I, in odd years. Hypothesis testing when form of population sampled is unknown: rank, sign, chi-square, and slippage tests; Kolmogorov and Smirnov type tests; confidence intervals and bands. ~~Pr.: One statistics course.~~

TO: STAT 716 – Nonparametric Statistics. (2) I, in odd years. Hypothesis testing when form of population sampled is unknown: rank, sign, chi-square, and slippage tests; Kolmogorov and Smirnov type tests; confidence intervals and bands. Pr.: STAT 704 and 705 or STAT 713.

RATIONALE: Makes specific the necessary background for STAT 716.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 717 – Categorical Data Analysis. (3) II. Analysis of categorical count and proportion data. Topics include tests of association in two-way tables; measures of association; Cochran-Mantel-Haenzel tests for 3-way tables; generalized linear models; logistic regression; loglinear models. ~~Pr.: STAT 704 and 705.~~

TO: STAT 717 – Categorical Data Analysis. (3) II. Analysis of categorical count and proportion data. Topics include tests of association in two-way tables; measures of association; Cochran-Mantel-Haenzel tests for 3-way tables; generalized linear models; logistic regression; loglinear models. Pr.: STAT 704 and 705 or STAT 713.

RATIONALE: STAT 713 is taken by graduate students in Statistics and covers material offered in STAT 704 and 705 but at a higher level.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 720 – Design of Experiments. (3) II, S. Planning experiments so as to minimize error variance and avoid bias; Latin squares; split-plot designs; switch-back or reversal designs; incomplete block designs; efficiency. Pr.: ~~STAT 704 and 705.~~

TO: STAT 720 – Design of Experiments. (3) II, S. Planning experiments so as to minimize error variance and avoid bias; Latin squares; split-plot designs; switch-back or reversal designs; incomplete block designs; efficiency. Pr.: STAT 704 and 705 or STAT 713.

RATIONALE: STAT 713 is taken by graduate students in Statistics and covers material offered in STAT 704 and 705 but at a higher level.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 722- Experimental Design for Product Development and Quality Improvement. (3) I. A study of statistically designed experiments which have proven to be useful in product development and quality improvement. Topics include randomization, blocking, factorial treatment structures, factional factorial designs, screening designs, and response surface methods. Pr.: STAT 704 and 705 or STAT 511.

TO: STAT 722- Experimental Design for Product Development and Quality Improvement. (3) I. A study of statistically designed experiments which have proven to be useful in product development and quality improvement. Topics include randomization, blocking, factorial treatment structures, factional factorial designs, screening designs, and response surface methods. Pr.: STAT 704 and 705 or STAT 511 or STAT 713.

RATIONALE: Specified pre-requisites corrected.

IMPACT: None

EFFECTIVE DATE: FALL 2011

FROM: STAT 730 – Multivariate Statistical Methods. (3) II. Multivariate analysis of variance and covariance; classification and discrimination; principle components and introductory factor analysis; canonical correlation; digital computing procedures applied to data from natural and social sciences. Pr.: STAT 704 and 705.

TO: STAT 730 – Multivariate Statistical Methods. (3) II. Multivariate analysis of variance and covariance; classification and discrimination; principle components and introductory factor analysis; canonical correlation; digital computing procedures applied to data from natural and social sciences. Pr.: STAT 704 and 705 or STAT 713.

RATIONALE: STAT 713 is taken by graduate students in Statistics and covers material offered in STAT 704 and 705 but at a higher level.

IMPACT: None

EFFECTIVE DATE: Fall 2011

DROP: STAT 735 – Statistics in the Health Related Industries. (2) I, in odd years. Case studies and selected literature of applications of statistics to problems in pharmaceutical and health-related industries are discussed. Topics include pharmacokinetic analysis, covariance analysis, crossover studies, bioequivalence.

RATIONALE: The course was developed by a former faculty member and there are no plans to offer the course in the current Statistics curriculum.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 736 – Bioassay. (2) II, in odd years. Direct assays; quantitative dose-response models; parallel line assays; slope ratio assays; experimental designs for bioassay; covariance adjustment; weighted estimates; assays based on quantal responses. Pr.: STAT 704 and 705.

TO: STAT 736 – Bioassay. (2) II, in odd years. Direct assays; quantitative dose-response models; parallel line assays; slope ratio assays; experimental designs for bioassay; covariance adjustment; weighted estimates; assays based on quantal responses. Pr.: STAT 704 and 705 or STAT 713.

RATIONALE: STAT 713 is taken by graduate students in Statistics and covers material offered in STAT 704 and 705 but at a higher level.

IMPACT: None

EFFECTIVE DATE: Fall 2011

DROP: STAT 740 – Nonlinear Models. (3) S, in even years. Methods of estimating parameters of nonlinear models; procedures for testing hypotheses; construction of confidence intervals and regions; nonlinear analysis of covariance; quantal dose response and probabilistic choice models.

RATIONALE: The subject matter now overlaps with other currently offered classes in the Statistics curriculum.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 799 – Topics in Statistics. (1-3) I, II, S. ~~Pr.: STAT 703 or 770 and consent of instructor.~~

TO: STAT 799 – Topics in Statistics. (1-3) I, II, S. Pr.: Consent of instructor.

RATIONALE: Change in pre-requisite to instructor permission provides flexibility in required background needed for particular topics offering.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 818 – Theory of Life-Data Analysis. (3) ~~II, in odd years~~. A study of models and inferential procedures important to life-data analysis. Comparison of estimators (MLE, BLUE, etc.). Pivotal quantities. Design and regression models for non-normal distributions. Analysis of censored data. Pr.: STAT 771.

TO: STAT 818 – Theory of Life-Data Analysis. (3) I, in even years. A study of models and inferential procedures important to life-data analysis. Comparison of estimators (MLE, BLUE, etc.). Pivotal quantities. Design and regression models for non-normal distributions. Analysis of censored data. Pr.: STAT 771 and STAT 705 or 713.

RATIONALE: Incorrect term offered. Additional pre-requisite required for necessary background for STAT 818.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 860 - Linear Models I. (3) I. Subspaces, projections, and generalized inverses; multivariate normal distribution, distribution of quadratic forms; optimal estimation and hypothesis testing procedures for the general linear model; application to regression models, correlation model. ~~Pr.: STAT 704, 705, 771.~~

TO: STAT 860 - Linear Models I. (3) I. Subspaces, projections, and generalized inverses; multivariate normal distribution, distribution of quadratic forms; optimal estimation and hypothesis testing procedures for the general linear model; application to regression models, correlation model. Pr.: STAT 713, 771.

RATIONALE: Higher level of pre-requisites provides the necessary background for STAT 860.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 880 – Time Series Analysis. (3) I, in odd years. Autocorrelation function; spectral density; autoregressive integrated moving average processes; seasonal time series; transfer function model; intervention analysis; regression model with time series error. Pr.: ~~STAT 705, 770.~~

TO: STAT 880 – Time Series Analysis. (3) I, in odd years. Autocorrelation function; spectral density; autoregressive integrated moving average processes; seasonal time series; transfer function model; intervention analysis; regression model with time series error. Pr.: STAT 713, 771.

RATIONALE: Higher level of pre-requisites provides the necessary background for STAT 880.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 901 – Rank and Robustness. (2) I, ~~in odd years~~. A study of robust and rank-based procedures for estimation and testing in one-and two-sample location problems and linear models. Topics may include: norm-based inference; asymptotic theory; asymptotic relative efficiency; evaluating robustness via the influence function and breakdown; R-estimates, M-estimates, U-statistics. Pr.: ~~STAT 771, 860.~~

TO: STAT 901 – Rank and Robustness. (2) I, <u>in even years</u>. A study of robust and rank-based procedures for estimation and testing in one-and two-sample location problems and linear models. Topics may include: norm-based inference; asymptotic theory; asymptotic relative efficiency; evaluating robustness via the influence function and breakdown; R-estimates, M-estimates, U-statistics. Pr.: <u>STAT 860.</u>

RATIONALE: Change in term offered allows a realignment of STAT 901, 902, 903 and 904 so that 902 and 903 can be taught within the same academic year, which is preferred since material in 903 depends directly on material in 902. Chance in pre-requisite removes redundancy.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 902 – Generalized Linear Models. (2) ~~II, in odd years.~~ Statistical models based on the exponential family of distributions where a function of the mean response is linear in the covariates. Applications to non-normal and discrete data, including binary, Poisson and gamma regression, and log-linear models. Topics include likelihood-based estimation and testing, model-fitting, residual analysis, over-dispersed models, quasi-likelihood, and the use of computer packages. ~~Pr.: STAT 704,705, 720.~~

TO: STAT 902 – Generalized Linear Models. (2<u>) I, in even years.</u> Statistical models based on the exponential family of distributions where a function of the mean response is linear in the covariates. Applications to non-normal and discrete data, including binary, Poisson and gamma regression, and log-linear models. Topics include likelihood-based estimation and testing, model-fitting,

residual analysis, over-dispersed models, quasi-likelihood, and the use of computer packages. Pr.: STAT 860.

RATIONALE: Change in term offered allows STAT 902 and 903 to be taught within the same academic year, which is preferred since material in 903 depends directly on material in 902. Change in pre-requisite corrects the level of background study required for STAT 902.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 903 – Spatial and longitudinal Data. (2) ~~I,~~ odd years. Statistical analysis of spatially and temporally correlated data, including inference for continuous and discrete data based on linear, nonlinear and generalized linear models and methods. Inferential objectives include prediction of response and estimation of correlation/covariance structures. ~~Pr.: STAT 720, 771, 861.~~

TO: STAT 903 – Spatial and longitudinal Data. (2) II, odd years. Statistical analysis of spatially and temporally correlated data, including inference for continuous and discrete data based on linear, nonlinear and generalized linear models and methods. Inferential objectives include prediction of response and estimation of correlation/covariance structures. Pr.: STAT 861.

RATIONALE: Change in term offered allows STAT 902 and 903 to be taught within the same academic year, which is preferred since the material in 903 depends directly on material in 902. Change in pre-requisite removes redundancy.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 904 – Resampling Methods. (2) II, even years. Application, theory, and computational aspects of resampling methods. Topics include parametric, nonparametric, jackknife, and finite-population resampling; bootstrap confidence intervals and hypothesis tests; randomization theory and permutation tests; application to regression; implementation using statistical software. Additional topics may include double bootstrap, dependent data, efficient resampling. ~~Pr.: STAT 771, 860.~~

TO: STAT 904 – Resampling Methods. (2) II, even years. Application, theory, and computational aspects of resampling methods. Topics include parametric, nonparametric, jackknife, and finite-population resampling; bootstrap confidence intervals and hypothesis tests; randomization theory and permutation tests;

application to regression; implementation using statistical software. Additional topics may include double bootstrap, dependent data, efficient resampling. Pr.: STAT 860.

RATIONALE: Change in pre-requisite removes redundancy.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 945 – Problems in Statistical Consulting. (1) I, II. Principles and practices of statistical consulting. Supervised experience in consultation and consequent research concerning applied statistics and probability associated with on-campus investigations. Pr.: ~~STAT 720 or 722, restricted to majors.~~

TO: STAT 945 – Problems in Statistical Consulting. (1) I, II. Principles and practices of statistical consulting. Supervised experience in consultation and consequent research concerning applied statistics and probability associated with on-campus investigations. Pr.: STAT 720, restricted to majors.

RATIONALE: Statistical design concepts covered in STAT 720 are required as pre-requisites background for STAT 945.

IMPACT: None

EFFECTIVE DATE: Fall 2011

FROM: STAT 950 – Advanced Studies in Probability and Statistics. (1-3) I, II, S. Theoretical studies of advanced topics in probability, decision theory, Markov processes, experimental design, stochastic processes, or advanced topics. May be repeated. ~~Pr.: STAT 771.~~

TO: STAT 950 – Advanced Studies in Probability and Statistics. (1-3) I, II, S. Theoretical studies of advanced topics in probability, decision theory, Markov processes, experimental design, stochastic processes, or advanced topics. May be repeated. Pr.: Instructor consent.

RATIONALE: Change in pre-requisite to instructor permission provides flexibility in required background needed for a particular advanced studies offering.

IMPACT: None

EFFECTIVE DATE: Fall 2011

CURRICULUM CHANGES
Undergraduate (Expedited)

Division of Biology

FROM:	TO:
Microbiology degree Students in microbiology may obtain the BA or BS degree. The requirements for a microbiology major, in addition to those requirements of the College of Arts and Sciences, include blocks A, B, and C as listed below.	**Microbiology degree** Students in microbiology may obtain the BA or BS degree. The requirements for a microbiology major, in addition to those requirements of the College of Arts and Sciences, include blocks A, B, and C as listed below.
Block A: Courses offered by other departments	**Block A: Courses offered by other departments**
MATH 220-Analytical Geometry and Calculus I 4 CHM 210 – Chemistry I 4 CHM 230 – Chemistry II 4 CHM 350 – General Organic Chemistry 3 CHM 351 – General Organic Chemistry Lab 2 BIOCH 521 – General Biochemistry 3 PHYS 113 – General Physics I 4 PHYS 114 – General Physics II 4	MATH 220-Analytical Geometry and Calculus I 4 CHM 210 – Chemistry I 4 CHM 230 – Chemistry II 4 CHM 350 – General Organic Chemistry 3 CHM 351 – General Organic Chemistry Lab 2 BIOCH 521 – General Biochemistry 3 PHYS 113 – General Physics I 4 PHYS 114 – General Physics II 4
Prerequisites for MATH 220 are MATH 100 and 150 or four semesters of high school algebra and one semester of trigonometry, plus appropriate math placement exam scores. Upon consultation with a Division of Biology advisor, a student may substitute: Biochemistry I and II for General Biochemistry; Organic Chemistry I and II for General Organic Chemistry; Organic Chemistry I lab for General Organic Chemistry Lab; and Engineering Physics I and II for General Physics I and II.	Prerequisites for MATH 220 are MATH 100 and 150 or four semesters of high school algebra and one semester of trigonometry, plus appropriate math placement exam scores. Upon consultation with a Division of Biology advisor, a student may substitute: Biochemistry I and II for General Biochemistry; Organic Chemistry I and II for General Organic Chemistry; Organic Chemistry I lab for General Organic Chemistry Lab; and Engineering Physics I and II for General Physics I and II.
BLOCK B: Division of Biology courses	**BLOCK B: Division of Biology courses**
BIOL 198 – Principles of Biology 4 BIOL 450 – Modern Genetics 4 BIOL 455 – General Microbiology 4 BIOL 541 – Cell Biology 3 BIOL 670 – Immunology 4 BIOL 675 – Genetics of Microorganisms 3	BIOL 198 – Principles of Biology 4 BIOL 450 – Modern Genetics 4 BIOL 455 – General Microbiology 4 BIOL 541 – Cell Biology 3 BIOL 670 – Immunology 4 BIOL 675 – Genetics of Microorganisms 3
BLOCK C: Microbiology major electives	**BLOCK C: Microbiology major electives**
Students must take an additional 13 hours from courses listed below. At least 7 of the 13 hours must be laboratory courses.	Students must take an additional 13 hours from courses listed below. At least 7 of the 13 hours must be laboratory courses.
~~BIOL 397,~~ BIOL 495, or 697 – Topics in Biology 1-3 BIOL 410 – Biology of the Cancer Cell 2	BIOL 495, or 697 – Topics in Biology 1-3 BIOL 410 – Biology of the Cancer Cell 2 BIOL 530 – Pathogenic Microbiology (lab) 3

BIOL 530 – Pathogenic Microbiology (lab) 3 BIOL 545 – Human Parasitology 3 BIOL 546 – Human Parasitology Lab 1 BIOL 604 – Biology of Fungi (lab) 3 BIOL 625 – Animal Parasitology (lab) 4 BIOL 671 – Immunology Lab 2 BIOL 676 – Molecular Genetics Lab 3 BIOL 687 – Microbial Ecology 3 BIOL 690 - Microbial Physiology and Metabolism 2 BIOL 698 – Problems in Biology (lab) 1-3 BIOL 705 – Eukaryotic Genetics 3 BIOL 707 – Advanced Cell Biology 3 BIOL 730 – General Virology 3 BIOL 731 – Virology Lab 2 ASI 607 – Food Microbiology (lab) 4 AGRON – Soil Microbiology (lab) 4 By consultation with a Division of Biology advisor a student may choose elective courses from Block C that allow a more specific focus on interest and experience. Areas of specialization would include prokaryotic microbiology, eukaryotic microbiology, biotechnology/genetic engineering, and infectious diseases. The microbiology curriculum coupled with appropriate electives provides an excellent education base for students moving directly into the job market, for students headed toward medical, dental, medical technology, and veterinary programs, and for students going into graduate programs in the biological sciences.	BIOL 545 – Human Parasitology 3 BIOL 546 – Human Parasitology Lab 1 BIOL 604 – Biology of Fungi (lab) 3 BIOL 609 – Cellular and Molecular Biology of Human Diseases 3 BIOL 625 – Animal Parasitology (lab) 4 BIOL 671 – Immunology Lab 2 BIOL 676 – Molecular Genetics Lab 3 BIOL 687 – Microbial Ecology 3 BIOL 690 - Microbial Physiology and Metabolism 2 BIOL 698 – Problems in Biology (lab) 1-3 BIOL 705 – Eukaryotic Genetics 3 BIOL 707 – Advanced Cell Biology 3 BIOL 730 – General Virology 3 BIOL 731 – Virology Lab 2 ASI 607 – Food Microbiology (lab) 4 AGRON – Soil Microbiology (lab) 4 By consultation with a Division of Biology advisor a student may choose elective courses from Block C that allow a more specific focus on interest and experience. Areas of specialization would include prokaryotic microbiology, eukaryotic microbiology, biotechnology/genetic engineering, and infectious diseases. The microbiology curriculum coupled with appropriate electives provides an excellent education base for students moving directly into the job market, for students headed toward medical, dental, medical technology, and veterinary programs, and for students going into graduate programs in the biological sciences.

RATIONALE: BIOL 609 Human Diseases was inadvertently left off the list of approved electives for microbiology majors. This change is to add BIOL 609 to the list of approved electives.

EFFECTIVE DATE: Fall 2011

This course change was removed. This should be a new course. Has a new course number.

Kinesiology

FROM: ~~KIN 590 – Seminar in Kinesiology.~~ (3) I, II, S. Issues and problems involving integration of the subdisciplines of kinesiology and professional areas of application. ~~Pr.: Completion of all or concurrent enrollment in final kinesiology core courses.~~

TO: KIN 594 – Personal and Environmental Influences on Exercise and Sport Performance. (3) I, II, S. This course examines psychological principles related to exercise and sport performance through interaction between the person and environment. Pr.: Kinesiology 220.

RATIOANALE: Course is currently listed under a generic seminar number and description within department. Course will be assigned a unique number and description.

IMPACT: None.

EFFECTIVE DATE: Fall 2011