COLLEGE OF ARTS AND SCIENCES

All changes effective Fall 2023

I COURSE CHANGES

COLLEGE OF ARTS AND SCIENCES INTERDISCIPLINARY PROGRAMS

(LFSC) Life Sciences

MOVE THE LIFE SCIENCES COURSES FROM THE COLLEGE OF ARTS AND SCIENCES TO THE BREDESEN CENTER FOR INTERDISCIPLINARY RESEARCH AND GRADUATE EDUCATION

LFSC 500 Thesis (1-15)
LFSC 502 Registration/Use of Facilities (1-15)
LFSC 505 Research Rotation (2)
LFSC 507 Programming for Biological Data Analysis (3)
LFSC 510 Special Topics in Life Sciences (1-3)
LFSC 515 Introduction to Genome Science and Technology I (1)
LFSC 517 Genomics and Bioinformatics (3)
LFSC 520 Genome Science and Technology I (4)
LFSC 521 Genome Science and Technology II (4)
LFSC 541 Colloquium (1)
LFSC 591 Foreign Study (1-15)
LFSC 592 Off-Campus Study (1-15)
LFSC 593 Independent Study (1-15)
LFSC 595 Special Topics in Genome Science and Technology (1-3)
LFSC 596 Special Topics in Genome Science and Technology (1-3)
LFSC 600 Doctoral Research and Dissertation (3-15)
LFSC 615 Journal Club in Genome Science and Technology (1)
LFSC 695 Advanced Topics in Genome Science and Technology (1-3)
LFSC 696 Advanced Topics in Genome Science and Technology (1-3)

Rationale: All courses listed above are to be added to the Bredesen Center for Interdisciplinary Research and Graduate Education and dropped from the College of Arts and Sciences. This is to align with the reorganization of the Life Sciences programs as a whole from under the administration of the College of Arts and Sciences to that of the Bredesen Center for Interdisciplinary Research and Graduate Education.

The purpose of this move is to align all joint UTK and ORNL graduate programs under the administration of the University of Tennessee–Oak Ridge Innovation Institute.

Impact on other units: Currently the Bredesen Center is listed as an “other academic unit” thus the tuition generated under LFSC will not flow back to the Bredesen Center but rather proportionately to all of the academic units. While the College of Arts and Sciences might lose some of the tuition revenue, the administrative costs will shift from them to the Bredesen Center. Historically, the Genome Science and Technology graduate students also serve as Graduate Teaching Assistants to help teach courses in the College of Arts and Sciences; the Bredesen Center has agreed in principle to continue to allow Genome Science and Technology students to participate in TA positions, which will largely be at the graduate advisor’s discretion (many of whom are Arts and Sciences faculty). The College of Arts and Sciences has offered to negotiate a continuation of the GTA agreement whereby GST graduate students will continue to fulfill teaching needs in the College.

Financial Impact: The Bredesen Center operational cost will increase with the administrative responsibility of taking on this joint PhD program. The BC is working with Budget and Finance to propose a revised Bredesen Center budget for the transition of the LFSC program.
(LING) Linguistics

ADD

LING 540 Translation, linguistics, and context (3)
Applies concepts and ideas from linguistics to the field of translation. Primarily drawing from linguistic pragmatics, the systematic study of human language in context, this course provides students with hands-on resources to successfully negotiate source and target language words, grammar, and texts/utterances in light of several layers of context, a process that is at the center of conceptualizing and crafting effective translations.

Rationale: Translation is relevant to the study of linguistics, and over the years students have expressed interest in a course that applies linguistics knowledge to translation. This course will count for the requirement of the Linguistics BA, Linguistics graduate certificate, and the new MFLL Graduate Certificate in Translation.

DEPARTMENT OF ANTHROPOLOGY

(ANTH) Anthropology

REVISE TITLE

ANTH 423 Feminist Anthropology (3)
Formerly:
ANTH 423 Anthropology of Gender (3)

Rationale: The previous title "Anthropology of Gender" is much less reflective of the field within the discipline today, which calls itself Feminist Anthropology, has an association named the Association for Feminist Anthropologists, and a new journal entitled Feminist Anthropology. This title change will better reflect the field and may also be more legible as a marker for students within the department and outside of it. Impact on other units: none. Financial impact: none

ADD THE FOLLOWING 400-LEVEL COURSE FOR GRADUATE CREDIT

ANTH 426 Decolonization (3)
A deep dive into the histories, philosophies, and praxis of decolonization. We will investigate colonial histories across the globe, the writings of major participants in decolonization movements, and contemporary settler colonialisms and resistance against them.

Rationale: "Decolonization" has become a popular term over the last few years and is often dehistoricized and depoliticized in its use. This course will offer a rich background and understanding for a term and concept that is becoming critical to the theory and practice of the discipline of Anthropology.
Impact on other units: none. Financial impact: none

REVISE TITLE AND HOURS

ANTH 474 DNA Lab Methods (3)
Formerly:
ANTH 474 Basic Molecular Biology Techniques (2)

Rationale: This is an existing course that is currently offered at 2 credit hours (1 hour lecture + 2 hours lab), but in practice comprises 3 lab hours (plus 1 lecture hour). Therefore, the credit hours need to be increased from 2 to 3.
Impact on other units: one. Financial impact: none
ADD SECONDARY CROSS LISTED COURSE

ANTH 503 Taphonomy (3)
(See GEOL 503)

Rationale: ANTH 503 introduces students to the field of taphonomy and provides students with an interest in either anthropology (forensics, zooarchaeology, paleoanthropology) and paleontology (paleoecology, fossil diagenesis) with a survey of the discipline including exposure to the primary literature and experiences with identifying and interpreting the effects of taphonomic processes on organismal remains by way of specimen-based activities and instructions. Impact on other units: Cross listed with GEOL 503. GEOL is primary. Financial impact: none.

REVISE TITLE AND DESCRIPTIONS

ANTH 504 Quantitative Methods for Anthropology (3)
Fundamentals of research design and statistical methods (including standard parametric statistics and some of their nonparametric correlates) emphasizing anthropological applications and appropriate usage. Exploratory data sets will be provided to facilitate learning, and students may additionally provide their own data.

Formerly:
ANTH 504 - Anthropological Statistics I (3)
Introduction to frequentist statistics (including standard parametric statistics and some of their nonparametric correlates) emphasizing anthropological applications, available methods and appropriate usage. Exploratory data sets will be provided to facilitate learning, and students may additionally provide their own data.

Rationale: Previously part of a two-course sequence within Anthropology, ANTH 504 and ANTH 604 are being retitled and given new descriptions to better reflect the content of the courses and to make both more widely marketable to graduate students as separate courses.

ANTH 521 Vertebrate Osteology (4)
This intensive laboratory course focuses on the examination and comparison of skeletons of major vertebrate groups in North America, including mammals, birds, fishes, reptiles, and amphibians. Focusing on local fauna from the comparative osteological collections in the Anthropology labs, students will learn to identify characteristics of major families of taxa, as well as learning to identify various local species, with emphasis on identifying animal remains from archaeological and paleontological contexts.

Formerly:
ANTH 521 Laboratory Studies in Zooarchaeology (4)
Examination and comparison of skeletons of major vertebrate groups, shells of terrestrial and aquatic mollusks, in relation to animal remains from archaeological contexts. Basic osteology and shell characters of species encountered in aboriginal sites, use of comparative collections.

Rationale: The previous title was ambiguous, this new one more accurately reflects the focus of the course. The new description also more accurately reflects the structure of the course.

REVISE TITLE, DESCRIPTION, (RE)PREREQ, AND REGISTRATION RESTRICTION

ANTH 604 - Bayesian Data Analysis for Natural and Social Sciences (3)
Fundamentals of Bayesian modeling and multivariate statistical modeling. Natural and social science applications are emphasized, along with skills in critical evaluation of research conducted using statistical methods in these fields. While exploratory data sets will be provided, students are strongly encouraged to supply their own research data to facilitate learning.
(RE)Prerequisite(s): ANTH 504 or EEB 560
Registration Restriction(s)/Permission(s): Students may enroll with courses equivalent to ANTH 504 and EEB 560 by instructor permission. Must have completed ANTH 504 or EEB 560 with at least a B. Minimum student level – graduate.

Formerly:
ANTH 604 - Anthropological Statistics II (3)
Advanced frequentist statistics for anthropology focusing on multivariate methods, time series analyses, resampling statistics, maximum likelihood analyses, with an introduction to Bayesian approaches. While exploratory data sets will be provided, students are strongly encouraged to supply their own research data to facilitate learning.
Registration Restriction(s): Must have completed Anthropology 504 or its equivalent with at least a B. Minimum student level – graduate.

Rationale: Previously part of a two-course sequence within Anthropology, ANTH 504 and ANTH 604 are being retitled and given new descriptions to better reflect the content of the courses and to make both more widely marketable to graduate students as separate courses. Impact on other units: none. Financial impact: none

REVISE CREDIT HOURS

ANTH 650 Research Design and Proposal Writing (6)

Formerly:
ANTH 650 Research Design and Proposal Writing (3)

Rationale: This is a labor intensive course where graduate students complete an NSF proposal based on their dissertation project. As they are drafting each section, they are all peer-reviewing fellow student's work, providing significant feedback. Because the work load is so significant, students are advised to limit other course work to none or one other course. Impact on other units: none. Financial impact: none

SCHOOL OF ART

(Art) Art

ADD REGISTRATION RESTRICTION

ART 503 Theory and Practice of Art Fundamentals (3)
Registration Restriction(s): Enrollment limited to graduate students

ART 504 First Semester Graduate Seminar (1)
Registration Restriction(s): Enrollment limited to graduate students

ART 507 Professional Practices: Teaching Internship (1)
Registration Restriction(s): Enrollment limited to graduate students

ART 511 Graduate Painting and Drawing I (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 512 Graduate Painting and Drawing II (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 521 Graduate Ceramics I (2-5)
Registration Restriction(s): Enrollment limited to graduate students

ART 525 Graduate Ceramics II (2-5)
Registration Restriction(s): Enrollment limited to graduate students

ART 531 Graduate Photography I (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 532 Graduate Photography II (2-6)
Registration Restriction(s): Enrollment limited to graduate students
ART 535 Graduate Time-Based Art I (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 536 Graduate Time-Based Art II (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 540 Topics in Post Production (3)
Registration Restriction(s): Enrollment limited to graduate students

ART 541 Graduate Sculpture I (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 542 Graduate Sculpture II (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 547 MFA Professional Practice Seminar (3)
Registration Restriction(s): Enrollment limited to graduate students

ART 561 Graduate Printmaking I (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 562 Graduate Printmaking II (2-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 591 Foreign Study (1-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 592 Off-Campus Study (1-6)
Registration Restriction(s): Enrollment limited to graduate students

ART 593 Independent Study (1-4)
Registration Restriction(s): Enrollment limited to graduate students

ART 595 Visiting Artist Seminar (2)
Registration Restriction(s): Enrollment limited to graduate students

Rationale: These classes are for graduate students only. With no registration restriction, we have had undergraduate students mistakenly register for these classes. Impact on other units: none. Financial impact: none.

(ARTB) Three-Dimensional Arts

REMOVE (RE) PREREQUISITE

ARTB421 Advanced Ceramic Sculpture (6)
(RE) Prerequisite(s): ARTB 320 & 321

Formerly:
ARTB421 Advanced Ceramic Sculpture (6)
(RE) Prerequisite(s): ARTB 323

Rationale: Revised in UG catalog to permit BA majors and minors, who do not have a portfolio review requirement, to advance into 300-level courses. This will also allow students from other concentrations to access 300-level courses. Impact on other units: none. Financial impact: none.
REVISE (RE) PREREQUISITE

ARTB 422 Advanced Pottery (6)
(RE) Prerequisite(s): ARTB 320 & ARTB 322

Formerly:
ARTB 422 Advanced Pottery (6)
(RE) Prerequisite(s): ARTB 322

Rationale: Revised in UG catalog to permit BA majors and minors, who do not have a portfolio review requirement, to advance into 300-level courses. This will also allow students from other concentrations to access 300-level courses. Impact on other units: none. Financial impact: none

(ARTC) Four-Dimensional Arts

REVISE TITLE

ARTC 439 Special Topics in Time-Based Arts

Formerly: ARTC 439 Special Topics in Four-Dimensional Arts

Rationale: This change is to correct an oversight. Four-Dimensional Arts was changed to Time-Based media wherever it appears in the Undergraduate Catalog and Graduate Catalog. Impact on other units: none. Financial impact: none

(ARTM) Art Museum and Curator Studies

ADD NEW 400-LEVEL CROSS LISTED COURSE FOR GRADUATE CREDIT

+ARTM 483 History of museums and Collections (3)
(Same as ARTH 483)

Rationale: Cross-listing this course with ARTM 483 will give it more visibility in the showcase of the new Museum and Curatorial Studies minor. Impact on other units: none. Financial impact: none

DEPARTMENT OF BIOCHEMISTRY AND CELLULAR & MOLECULAR BIOLOGY

(BCMB) Biochemistry, Cellular and Molecular Biology

ADD

BCMB 522 Computational Biology and Bioinformatics (3)
An introduction to the cutting-edge tools and approaches biologists and clinicians use to extract information from the vast amounts of genomic and proteomic data becoming available. Students gain hands-on experience with computational biology tools such as data mining, protein structure manipulation and prediction, interaction network analysis, DNA sequence analysis, gene function analysis, R studio for statistics and data visualization, and dimensionality reduction for large datasets. Students apply these tools to biomedical research questions in course projects.

Contact Hour Distribution: 2 hours lecture and 2 hours lab.

Comment(s): Helpful if students have taken BCMB 412 and BCMB 401 or equivalent molecular biology and biochemistry courses

Registration Permission: Consent of instructor.

Rationale: This course introduces students to statistical methods and computational tools for visualizing and analyzing large scale ‘omic data. Students gain hands-on experience using modern tools of computational biology to investigate real biomedical research questions that prepares them for biological research, study in professional programs, or graduate

schools. Although initially designed for undergraduates, graduate students that lack this background will learn very useful skills that could be applied to their research.

REVISE DESCRIPTION, CREDIT HOURS, AND REMOVE REPEATABILITY

BCMB 515 - Experimental Techniques I (3)
Introduction to key experimental and computational methodologies and instrumentation in biochemistry, molecular biology and cell biology with a focus on experimental design and data analysis. Students will learn how to choose appropriate experimental and/or analytical approaches to biological problems; design cellular, molecular, biochemical, and genomics experiments with appropriate controls; interpret quantitative results with appropriate visualization and statistical analyses; understand potential pitfalls in experimental design and approaches to troubleshooting. Team-taught lecture/demonstration format.

Formerly:
BCMB 515 - Experimental Techniques I (2-4)
Introduction to modern experimental methodology and instrumentation in biochemistry, molecular biology and cell biology, including cell culture; spectrophotometry; microscopy; nucleic acid purification and analysis; protein assays; enzyme purification; electrophysiology; computer analysis of nucleic acid and protein sequences. Team-taught lecture/demonstration format.
Repeatability: May be repeated. Maximum 6 hours.

Rationale: Current description and credit hours represent an outdated version of the course and do not represent the present reality in which students register for 3 credit hours and the course cannot be repeated. The new description also offers a better representation of the contents taught in this course.
Impact on other units: none. Financial impact: none

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

(GEOL) Geology

ADD THE FOLLOWING CROSS LISTED COURSE

GEOL 503 Taphonomy (3)
A survey of the field of taphonomy, covering processes that affect and alter organismal remains in the postmortem interval. Topics will address taphonomic processes acting at varying temporal and geographic scales relevant to both anthropology and paleontology, exploring the interdisciplinary nature of the field. Recommended background: GEOL 102 and GEOL 320 OR ANTH 120 and ANTH 464.
Rationale: GEOL 503 introduces students to the field of taphonomy and provides students with an interest in either anthropology (forensics, zooarchaeology, paleoanthropology) and paleontology (paleoecology, fossil diagenesis) with a survey of the discipline including exposure to the primary literature and experiences with identifying and interpreting the effects of taphonomic processes on organismal remains by way of specimen-based activities and instruction. Impact on other units: cross listed with ANTH 503. GEOL is primary.
Financial impact: none.

ADD

GEOL 520 Trace Fossils: Behavior, Environment, and Applications (3).
An investigation of organism-substrate interactions during the present and throughout geologic time. Topics include ichnologic theory, a review of modern and ancient trace makers, ichnofacies models, and applications to sedimentologic and stratigraphic problems, environmental impacts on substrate-dependent ecosystems, as well as oil, gas, and groundwater exploration.
Contact hour distribution: 2 hours lecture, 2 hour lab
Recommended background: sedimentology or paleontology
Rationale: This course is being added by a new faculty member and will be taken primarily by graduate students in the Department of Earth and Planetary Sciences.

GEOL 544 Teach the Earth (3)
Students will explore, discuss, and practice evidence-based strategies for teaching in the geosciences. This course will equip students with a framework for growth and effective communication throughout their professional careers. Topics include connecting with personal experiences as geoscientists, developing a teaching philosophy, effective lesson planning, evidence-based teaching strategies, and transparent assessment.

Rationale: This new course will explore evidence-based teaching strategies to graduate students in geology and prepare them for effective teaching in their careers. Expected enrollment 5-10 and will include Geology majors.


GEOL 553 Modern and Ancient Soils (3)
Course description: An investigation of soils in the modern and geologic record. Topics include an overview of soil formation and major soil processes, field and laboratory techniques in the study of soils and paleosols, impacts of environmental and climatic change on soil systems, as well as the use of paleosols in paleoenvironmental and paleoclimatic reconstructions.
Contact hour distribution: 2 hours lecture, 2 hour lab

Rationale: This course is being added by a new faculty member and will be taken primarily by graduate students in the Department of Earth and Planetary Sciences.

GEOL 583 Radiogenic Isotope Geochemistry (3)
Course description: Radiogenic isotope geochemistry studies the natural variations in the relative isotope abundances of interested elements caused by radioactive decay. The course will provide an introduction of nuclear processes and their applications in the broad field of Earth and planetary sciences. We will discuss radiogenic isotopes as a tool for chronology, as well as a monitor of geological processes in the mantle and crust of the Earth and other rocky planets. We will also review laboratory measurements of radiogenic isotope variations. There are no formal prerequisites, but students should be prepared to learn (or relearn) physics, chemistry, and math.
Repeatability: may be repeated maximum one time

Rationale: This course teaches foundations of radiogenic isotope geochemistry, which is an important aspect of modern geology. It is extensively used in the broad field of Earth and planetary sciences. Students will be better prepared for advanced courses and a career in Earth and planetary sciences. The course is developed for both graduate and undergraduate students and will be taught at the 400/500 level in Spring 2023.

DEPARTMENT OF GEOGRAPHY AND SUSTAINABILITY

(GEOG) Geography

ADD THE FOLLOWING 400 LEVEL COURSE FOR GRADUATE CREDIT

GEOG 424 LiDAR Technology and Applications (3)
This course introduces the theory and applications of LiDAR (Light detection and ranging) technology in obtain, process, and analyze geospatial data. Potential topics include feature extraction, terrain modelling, and biomass estimation.
(RE) Prerequisite(s): GEOG 313, GEOG 413, or consent of instructor.

Rationale: This course is appropriate for graduate students
Impact on other units: none. Financial impact: none

REVISE TITLE AND DESCRIPTION

GEOG 517 Database Design for Spatial Data Science (3)
Concepts and methods of database design and creation for geographic information systems and spatial data science.

Formerly:
GEOG 517 Geographic Information Management and Processing (3)
Concepts and methods in management of geographic information. Database design, manipulation, sampling and analysis.

Rationale: The current course title and course description are very general and the current course title is sometimes confused with GEOG 518’s course title of "GIS Project Management”. Impact on other units: none. Financial impact: none.
REVISE REPEATABILITY

GEOG 609 Seminar in Geography (2-3)
Repeatability: May be repeated. Maximum 21 hours

Formerly:
GEOG 609: Seminar in Geography (2-3)
Repeatability: May be repeated. Maximum 6 hours

Rationale: GEOG 609 is offered multiple times during an academic year by different faculty members who use the course to explore wide ranging topics in geography, especially human geography, as they introduce students to the newest theories, methods, and issues. GEOG 609 plays a key, repeatable role in the program of study for many graduate students in the program, but at present students can only repeat the course a maximum of 6 credit hours. Exceptions for taking the course more often can be granted by the UT Graduate School but their officials request the department find a solution. Moreover, current repeatability limits of 609 place constraints on enrollment/course options by students who completed an MS in Geography and are now pursuing a PhD. Impact on other units: none. Financial impact: none.

DEPARTMENT OF MATHEMATICS

(MATH) Mathematics

ADD THE FOLLOWING 400 LEVEL COURSES FOR GRADUATE CREDIT

Math 420 Graph Theory (3)
Introduction to topics in graph theory, such as Hamiltonian cycles, Euler tours, connected graphs, matchings, coverings, planar graphs and graph colorings.
(RE) Prerequisite: Math 300 or Math 307 or COSC 311.

Rationale: This course was taught twice as a topics course on a trial basis, and it was well-received by students, attracting students from computer science as well as math. Impact on other units: none. Financial impact: none.

REVISE DESCRIPTION

MATH 421 Combinatorics (3)
Topics may include basic principles of enumerative combinatorics, partitions, recurrence relations, generating functions, and introduction to graphs.

Formerly:
MATH 421 Combinatorics (3)
Introduction to problems of construction and enumeration for discrete structures, such as sequences, partitions, graphs, finite fields and geometries, and experimental designs.


ADD REPEATABILITY

MATH 521 – Enumerative Combinatorics I
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 521 – Enumerative Combinatorics I
Not repeatable

MATH 522 – Enumerative Combinatorics II
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 522 – Enumerative Combinatorics II
Not repeatable

MATH 531 – Ordinary Differential Equations I
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 531 – Ordinary Differential Equations I
Not repeatable

MATH 532 – Ordinary Differential Equations II
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 532 – Ordinary Differential Equations II
Not repeatable

MATH 534 – Calculus of Variations
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 534 – Calculus of Variations
Not repeatable

MATH 537 – Mathematical Principles of Continuum Mechanics 1
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 537 – Mathematical Principles of Continuum Mechanics 1
Not repeatable

MATH 555 – Number Theory I
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 555 – Number Theory I
Not repeatable

MATH 556 – Number Theory II
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 556 – Number Theory II
Not repeatable

MATH 567 – Riemannian Geometry I
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 567 – Riemannian Geometry I
Not repeatable

MATH 568 – Riemannian Geometry II
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 568 – Riemannian Geometry II
Not repeatable
MATH 583 – Mathematical Evolutionary Theory
Repeatability: May be repeated. Maximum of 6 hours.

Formerly:
MATH 583 – Mathematical Evolutionary Theory
Not repeatable

Rationale: Graduate courses with variable content; it often makes sense for students to take them more than once. Impact on other units: none. Financial impact: none

REVISE DESCRIPTION AND (DE) PREREQUISITE

MATH 681 Advanced Topics in Mathematical Biology I (3)
Selected topics in theoretical and applied mathematical biology: including cell biology, ecology, evolution, epidemiology, immunology, network dynamics, social and behavioral science, and the integration and comparison of models to experimental and field data from life sciences.
(DE) Prerequisite(s): 581 or 582 or 682 or consent of instructor.

Formerly:
MATH 681 – Advanced Topics in Mathematical Biology I (3)
Selected topics in theoretical and applied mathematical biology: including ecology, epidemiology, immunology, network dynamics, social and behavioral science, and the integration and comparison of models to experimental and field data.
(DE) Prerequisite(s): 581 and 582.

Rationale: Variable-content course, often featuring topics at the research frontier. The change is needed since the content of M681 may be independent from that of M682. Impact on other units: cross listed with EEB 681. Financial impact: none.

MATH 682 Advanced Topics in Mathematical Biology II (3)
Selected topics in theoretical and applied mathematical biology: including cell biology, ecology, evolution, epidemiology, immunology, network dynamics, social and behavioral science, and the integration and comparison of models to experimental and field data from life sciences.
(DE) Prerequisite(s): MATH 581 or MATH 582 or MATH 681 or consent of instructor.

Formerly:
MATH 682 Advanced Topics in Mathematical Biology II (3)
Selected topics in theoretical and applied mathematical biology: including ecology, epidemiology, immunology, network dynamics, social and behavioral science, and the integration and comparison of models to experimental and field data.
(DE) Prerequisite(s): MATH 681

Rationale: Variable-content course, often featuring topics at the research frontier. The change is needed since the content of M681 may be independent from that of M682. Impact on other units: cross listed with EEB 683. Financial impact: none.

DEPARTMENT OF MICROBIOLOGY

(MICR) Microbiology

ADD

MICR 669 Advanced Techniques in Field Microbiology (3)
Introduction to modern experimental techniques in the observation and data collection of microorganisms and various features of their natural environments.

Rationale: Microbial ecology explores the diversity, distribution, and abundance of microorganisms, their specific interactions, and the effect that they have on ecosystems. Microbial ecologists study the interactions of microorganisms with their environment, each other, and plant and animal species. Field work is the process of observing and collecting data about organisms, cultures, and natural environments. Field work differs from the semi-controlled environments of a laboratory or classroom in that provides the reality of the truly dynamic and varied reality of our natural world. Management of environments, for policy, environmental quality, food resources, etc. requires an understanding of how ecosystems are studied. The ethical and productive pursuit of field work requires knowledge of environmental and societal impacts at field sites, techniques in remote sensing, minimizing sampling and processing biases and contamination, proper archiving and sample storage, and familiarity with equipment deployment and remote sensing. To date, such topics have been conveyed to graduate students on an ad hoc basis. A version of this course has been offered as a journal club and was well-received by students. We are seeking a permanent course number now because this class is intended to support a proposed
graduate certificate in Analytical Approaches in Biology - Field Analytical Techniques and a new MS program in this area that is under development by departments within the Biology Division.

Impact on other units: The course is open to all graduate students including those from other Biology Division departments (BCMB and EEB) and the College of Engineering and UTIA. It is intended to support a proposed graduate certificate in Analytical Approaches in Biology - Field Analytical Techniques and a new MS program in this area that is under development by departments within the Biology Division.

Financial Impact: A course fee may need to be implemented, to cover costs for any field sampling trips taken by the class and/or sample analyses from field excursions. A faculty of practice who teaches this class will need to be paid as a lecturer.

**MICR 639 Advanced Techniques in Single Cell Analysis (3)**

Introduction to modern experimental techniques in the analysis of single cells. Lectures and hands-on, practical learning.

Rationale: Flow cytometry and fluorescence activated cell sorting (FACS) enable visualization and analysis of specific characteristics of single cells (from animals, plants, and microbes) from a population. These techniques are utilized across a broad range of biological disciplines. This course is intended to give students familiarity with basic-intermediate skills and concepts needed to understand the technology, how to use it, and how to analyze the data using equipment-associated software. Currently, such training is offered ad hoc and without consistent rigorous theoretical and application background. This course has been offered as a pilot during winter mini term and was well-received by students. We are seeking a permanent course number now because this class is intended to support a proposed graduate certificate in Analytical Approaches in Biology - Field Analytical Techniques and Quantification and a new MS program in this area that is under development by departments within the Biology Division.

Impact on other units: The course is open to all graduate students including those from other Biology Division departments (BCMB and EEB) and the College of Engineering and UTIA. It is intended to support a proposed graduate certificate in Analytical Approaches in Biology - Field Analytical Techniques and Quantification and a new MS program in this area that is under development by departments within the Biology Division.

Financial Impact: There are some supply costs, ~$2000 per class per year at most. The faculty of practice who teaches this class will need to be paid as a lecturer (faculty of practice), since their time spent teaching cannot be paid through recharge services. This is a similar approach as that being taken for MICR 679 currently.

**DEPARTMENT OF MODERN FOREIGN LANGUAGES AND LITERATURES**

ADD THE FOLLOWING NEW 400-LEVEL COURSE FOR GRADUATE CREDIT

**MFLL 410 Black Europe: Transnational Identities and Narratives in Afro-European Literature, Media, Music and Art (3)**

This cross-disciplinary course explores issues of race, identity and citizenship in colonial and post-colonial Europe drawing from Sociology, Geography, Mediterranean Studies, Diaspora Studies, Post-Colonialism, Anthropology, Art, History, Critical Race Theory, Gender Studies, Music and Media and Cultural Studies.

Prerequisites: ENGL 102, ENGL 118, ENGL 132, ENGL 290, or ENGL 298

Repeatability: May be repeated if content differs, maximum 6 hours.

Comments: Taught in English.

Rationale: This new course aims to provide students with the essential understanding of a complex and multi-layered depiction of contemporary multicultural and multiracial Europe. It also explores its social and cultural changes, where the African community is becoming larger and better represented. In addition, students will learn that, in the shadow of Europe’s colonialist heritage, phenomena of mass migration challenge, complicate, and develop the notion of ‘Europeanness’ and undermine the fixity of an European identity in favor of multicultural and transnational identities.

This course will be taught with specific topics in each language section, as “Black Italy,” “Black Germany,” “Black France,” “Black Spain,” “Black Portugal,” and so on. Impact on other units: none. Financial impact: none

**ADD**

**MFLL 560 Translation Theory (3)**

This course examines the theory and practice of translation from a variety of linguistic and cultural angles. It introduces key concepts such as relevance and equivalence and explores critical approaches depending on the translated text types.

Rationale: MFLL is introducing this course to prepare the way for an eventual Graduate Studies Certificate. The course will however be available for students outside of the certificate program, and outside of MFLL. Impact on other units: none. Financial impact: none
SCHOOL OF MUSIC

ADD

MUEN 511 Afro-Diasporic Percussion Ensemble (1)
Afro-diasporic percussion traditions, including West African, Afro-Cuban, Afro-Caribbean, and/or Afro-Brazilian. May also include singing and movement.
Repeatability: May be repeated. Maximum 6 hours.
Rationale: This ensemble currently has an undergraduate course number (MUEN 311) but not a graduate level number. A graduate number is needed so that the graduate students who participate in this ensemble can receive appropriate credit.

MUEN 522 Gospel Choir (1)
A mixed-voice ensemble rehearsing and performing selections from gospel traditions. This course introduces students to techniques of performance of choral literature from this genre. Students will develop skills specifically germane to vocal gospel music production. No previous knowledge of the gospel genre expected.
Repeatability: May be repeated. Maximum 6 hours
Rationale: New ensemble to provide opportunities to learn about and perform gospel music.

MUEN 523 Appalachian String Band Ensemble (1)
Ensemble performance of bluegrass, old-time, early country, and Americana musics. Students will perform on their own string instrument (guitar, banjo, mandolin, fiddle (violin), dobro, upright bass, viola, cello, electric bass, or other), or on voice.
Repeatability: May be repeated. Maximum 6 hours.
Comments: Audition required.
Rationale: This new course is currently being offered under a general chamber music number. It is not visible in the catalog, and difficult to locate in the timetable. This will make the course more evident to students. This graduate number is intended to correlate with the undergraduate number of the same ensemble, MUEN 323.

DEPARTMENT OF PHYSICS AND ASTRONOMY

(PHYS) Physics

DROP

PHYS 601 Atomic Physics (3)

PHYS 602 Atomic Physics (3)
Rationale: courses have not been taught in 4 or more years with no faculty in this area of expertise. Impact on other units: none. Financial impact: none

DEPARTMENT PSYCHOLOGY

REVISE TITLE AND DESCRIPTION

PSYC 515 - Professional Issues in Psychology
Research and practical issues in psychology.
Formerly
PSYC 515 - Colloquium in Experimental Psychology
Research and practical issues in experimental psychology.
Rationale: The course is not a colloquium and the content of the course is geared towards all of our first year graduate students, not just the experimental students. Impact on other units: none. Financial impact: none
REVISE CREDIT HOURS

PSYC 695 Field Placement in Clinical Psychology (1-6)
Formerly:
PSYC 695 Field Placement in Clinical Psychology (3)

Rationale: The Clinical Psychology Doctoral program would like to change the hours of Psyc 695 Field Placement in Clinical Psychology from a 3-hour course to a variable 1-6 hour course. This is the only change requested and will assist our students with financial impact. Impact on other units: none. Financial impact: none.

ADD

PSYC 698 Work Psychology (3)
Exploration of clinical, research, and advocacy implications of work, career, and vocational psychology.

Rationale: A version of this course has been offered as PSYC 601 (Special topics) for over a decade. This course is required by our doctoral program accreditors, so there is a need to have a specifically named course as part of the program and students' transcripts. Impact on other units: one. Financial impact: none

DEPARTMENT OF RELIGIOUS STUDIES

ADD

REST 530 Religions and Nature (3)
An investigation of the efforts of religious communities in addressing environmental issues around the world with special emphasis on themes of environmental justice.

Rationale: The study of religions and environmental issues is a growing field within religious studies, and similar courses are frequently offered at peer, aspirational peer and elite universities across the country. This course will give grad students around campus the option of taking this course for graduate credit. We have a department "Graduate Certificate" program. Impact on other units: none. Financial impact: none

DEPARTMENT OF THEATRE

ADD

THEA 455 - Scene Painting (3)
Techniques in painting theatrical backdrops, scenery units, and floor treatments.

Rationale: This course is regularly taught, every other year, as a special topics course. Impact on other units: none. Financial impact: none

REVISE TITLES

THEA 520 Graduate Studies in Acting
Formerly:
Master Class in Acting

THEA 523 Graduate Studies in Movement
Formerly
Master Class in Movement
THEA 524 Graduate Studies in Acting Shakespearean Text
Former title:
Master Class in Acting Shakespearean Text

THEA 525 Graduate Studies in Voice
Former title:
Master Class in Voice

THEA 540 Graduate Studies in Costume
Former title:
Master Class in Costume

THEA 570 Graduate Studies in Sound and Media Design
Former title:
Master Class in Sound and Media Design
Rationale: Masters Class typically a class given to students of a particular discipline by an expert of that discipline for a shortened time period. This class is a semester-long course. For clarity, we are changing the name. Also, we are revisiting the use of “master” throughout the curriculum. Impact on other units: none. Financial impact: none.

PART II PROGRAM CHANGES

COLLEGE OF ARTS AND SCIENCES INTERDISCIPLINARY PROGRAMS

Digital Humanities Graduate certificate

Under Required courses, revise the last paragraph as follows:
ENGL 593 or an additional 3 graduate credit hour course – either an independent study or a non-designated DH class – for which students will complete an independent DH project and compile their Certificate Portfolio, intended to be a tool for job-seeking purposes. Students may take additional non-designated DH classes with added independent DH projects to satisfy requirement II at the discretion of the program chair and their professors.

Formerly:

ENGL 593 or an additional 3 graduate credit hour course – either an independent study or a non-designated DH class – for which students will complete an independent DH project and compile their Certificate Portfolio, intended to be a tool for job-seeking purposes.

Rationale: There is now explicit flexibility in the program requirements for students who want to take additional classes for DH credit along the lines of the III requirement. Impact on other units: none. Financial impact: none

MOVE THE LIFE SCIENCES MAJORS (MS AND PHD) FROM THE COLLEGE OF ARTS AND SCIENCES TO THE BREDESEN CENTER FOR INTERDISCIPLINARY RESEARCH AND GRADUATE EDUCATION

LIFE SCIENCES MAJOR, MS
Concentrations: Genome Science and Technology and Plant Physiology and Genetics

LIFE SCIENCES MAJOR, PHD
Concentrations: Genome Science and Technology and Plant Physiology and Genetics from the College of Arts and Sciences to Intercollegiate Bredesen Center.

Rationale: This proposal is designed to revise the ownership of the graduate Major in Life Sciences from the College of Arts and Sciences (CAS) to the Bredesen Center for Interdisciplinary Research and Graduate Education (BC). Currently the Bredesen Center is listed as an “other academic unit” thus the tuition generated under LFSC will not flow back to the Bredesen Center but rather
proportionately to all of the academic units. While the College of Arts and Sciences might lose some of the tuition revenue, the administrative costs will shift from them to the Bredesen Center. Historically, the Genome Science and Technology graduate students also serve as Graduate Teaching Assistants to help teach courses in the College of Arts and Sciences; the Bredesen Center has agreed in principle to continue to allow Genome Science and Technology students to participate in TA positions, which will largely be at the graduate advisor’s discretion (many of whom are Arts and Sciences faculty). The College of Arts and Sciences has offered to negotiate a continuation of the GTA agreement whereby GST graduate students will continue to fulfill teaching needs in the College.

Impact on other units: This policy decision has been formally agreed to by the leadership of CAS, the BC and the Provost’s office. The BC will be submitting changes to any programs and courses under their ownership for effective fall 2023.

Financial impact: The Bredesen Center operational cost will increase with the administrative responsibility of taking on this joint PhD program. The BC is working with Budget and Finance to propose a revised Bredesen Center budget for the transition of the LFSC program.

Linguistics Graduate Certificate

Under required courses, first sub-bullet: 15 graduate credit hours from the following list, including at least one from LING 423, LING 425, MFLL 400, MFLL 512, SPAN 410, SPAN 432, revise list as follows:

- ASL 435
- EDDE 415, EDDE 416
- ENGL 508, ENGL 509, ENGL 575, ENGL 680
- FREN 421
- GERM 510, GERM 541, GERM 631, GERM 632
- LING 400, LING 426, LING 435, LING 471, LING 472, LING 474, LING 476, LING 477, LING 485, LING 540
- PSYC 400
- SPAN 430, SPAN 461, SPAN 531
- STAT 531
- WLEL 466, WLEL 489

Other courses may, where appropriate, be substituted for the courses listed above with the permission of the Chair of the Linguistics Program.

Formerly:

- ASL 435
- EDDE 415, EDDE 416
- ENGL 508, ENGL 509, ENGL 575, ENGL 680
- FREN 421
- GERM 510, GERM 541, GERM 631, GERM 632
- LING 400, LING 426, LING 435, LING 471, LING 472, LING 474, LING 476, LING 477, LING 485
- PSYC 400
- SPAN 430, SPAN 461, SPAN 531
- STAT 531
- WLEL 466, WLEL 489

Other courses may, where appropriate, be substituted for the courses listed above with the permission of the Chair of the Linguistics Program.

Rationale: the revised list includes the addition of the newly proposed course, LING 540.

Impact on other units: none. Financial impact: none

SCHOOL OF ART

ADD CERTIFICATE

Cinema Studies

The Graduate Certificate in Cinema Studies offers students the opportunity to study the aesthetics and history of cinema from a transnational, interdisciplinary perspective. The curriculum trains students in the theory of film analysis and criticism and allows them to explore different cinematic cultures and traditions. Many disciplines such as English, History, MFLL, Sociology, Religious Studies, and Political Science, and of course Art, employ visual media in teaching and research. Mastering theories and methodologies of film and visual media analysis is a key skill for research and effective teaching. Our courses provide a wide variety of theoretical approaches to film that will help graduate students to conduct their own research and inquiries and to enhance their teaching.
The Cinema Studies Graduate Certificate consists of a minimum of 12 hours in interdisciplinary coursework outlined below. A maximum of six credits can overlap between the WGS certificate and the student's home discipline, as approved by the Cinema Studies program cochairs. At least six credits toward the Cinema Studies Graduate Certificate must be taken at the 500 level or above.

Campus Code:
Knoxville campus

Graduate Certificate Type
Add-on

Credit Hours Required
12 graduate credit hours

Admissions Standards/Procedures
Applications to the Cinema Studies graduate certificate program must be made through the Office of Graduate Admissions and by submitting a letter of application and copies of relevant transcripts to the Cinema Studies co-chairs.

Students must be admitted to the certificate program prior to completing six credit hours toward the certificate. Students will select their coursework in conjunction with the Cinema Studies program co-chairs, who must approve each student's program. Students must maintain a minimum 3.0 grade point average throughout the program.

Non-course requirements
To receive the certificate, students must:
● Complete the Graduate Certificate Course Verification Form
● Apply to graduate from the certificate program through MyUTK

I. Required Course, 3 hours of:
   ● ENGL 594 Film History, Form, and Analysis

II. An additional 6 credits chosen from:
   ● CNST/FREN 420: French Cinema
   ● CNST/GERM 423: Topics in German Cinema
   ● CNST/WGS 469: Sexuality and Cinema
   ● CNST/MFLL 482: Special Topics in Global Cinema
   ● CNST/ENGL 489: Special Topics in Film
   ● CNST/SPAN 434: Film and Visual Culture in the Hispanic World
   ● FREN 550: French Literature and Culture II (Film)
   ● CNST 493: Independent Study
   ● ARTH 433: History of Film and Modern Art
   ● ARTC 431 The Business of Cinema
   ● ARTC 432 Advanced 4D Arts I
   ● ARTC 433 Animation III
   ● ARTC 435 Narrative Filmmaking
   ● ARTC 436 Video Art
   ● ARTC 439 Special Topics in Time-Based Arts
   • or special topics courses as approved by the Cinema Studies co-chairs

III. Three (3) credits of ENGL 593, MFLL 593 or ART 593 to be completed under the supervision of a member of the Cinema Studies core faculty, or another faculty member approved by a Cinema Studies co-chair. Normally, this will involve a capstone experience that consists of a thoughtful creation of a course syllabus, a teaching philosophy, and a public presentation pertaining to Cinema Studies and the student's home discipline.

Rationale: There is great demand among MFA students and graduate students in English and MFLL to receive official certification of their skills in film and media analysis. This certificate will help our students to secure positions and professionalize their teaching.

Impact on other units: This graduate certificate will impact the following units who support this program: Modern Foreign Languages & Literatures; Women, Gender, and Sexuality; English. Financial impact: none

DEPARTMENT OF CHEMISTRY

Chemistry Major, PhD

For all concentrations, under non course requirements, second bullet point, revise as follows
● Graduation with a PhD in Chemistry requires the publication of two articles in peer-reviewed journals describing research performed during graduate studies. One of the articles must list the graduating student as first author
(or an equally-contributing first author). Accepted articles will count toward this requirement. Each student must present their research at one regional, national, or international conference.

Formerly
- Graduation with a PhD in Chemistry requires the publication of a minimum of one article in a peer-reviewed journal describing research performed during graduate studies.

Rationale: This revision formalizes expectations held by the faculty of the department for PhD graduates, both in terms of publication and presentation of dissertation research in their field of study. This clarity benefits students so they can better plan their research activities and path through their doctoral studies, dissertation writing, and job search activities by laying out clear markers of success as a young professional. Impact on other units: none. Financial impact: none.

DEPARTMENT OF GEOGRAPHY AND SUSTAINABILITY

Geography Major, PhD
Under the Required Courses section, revise the third bullet point as follows
- at least 6 credit hours of 600-level seminars

Formerly
- 9 credit hours of 600-level seminars

Rationale: In Spring 2019, the department faculty voted to change one of course requirements for the PhD degree from “9 credit hours of 600-level seminars” to “at least 6 hours of 600-level seminars”. The change has already taken effect since Fall 2019 (see the Geography Graduate Handbook 2022-2023 edition section 6.2.3 on page 18). To resolve the discrepancy in course requirements between the Graduate Catalog and the Geography Graduate Handbook, we would like to request the Graduate Catalog to change the requirement from “9 credit hours of 600-level seminars” to “at least 6 credit hours of 600-level seminars”. Impact on other units: none. Financial impact: none

DEPARTMENT OF MICROBIOLOGY

ADD CERTIFICATE

Analytical Approaches in Biology - Cell Biology Imaging and Quantification Graduate Certificate

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

The Analytical Approaches in Biology - Cell Biology Imaging and Quantification Graduate Certificates is offered by the Biological Sciences Division. Applicants can be currently admitted to a degree program at UTK or can apply solely for the Analytical Approaches in Biology Certificate through the Graduate Admissions Office. The applicants are expected to have a baccalaureate degree in a natural science discipline with a minimum GPA of 3.00. Students from other disciplines may be admitted, but may be required to take prerequisite courses as described in the Graduate Catalog. Recommended background knowledge includes organismal and ecological biology, cellular and molecular biology, physics, and math. Applicants may be admitted to the certificate or complete the certificate as part of an MS or PhD.

This certificate will enable students to accomplish the following:
- Acquire knowledge of the theoretical basis of microscopy and imaging analytical techniques used to investigate biological systems.
- Apply knowledge of microscopy and imaging techniques to the generation of experimental data
- Analyze and interpret biological data generated from microscopy and imaging analytical technologies

Campus Code
Knoxville Campus

Graduate Certificate Type
Add on
Stand-Alone

Credit Hours Required
12 graduate credit hours
Admissions Standards/Procedures

- Applicants must meet the minimum admissions requirements of the University of Tennessee, Knoxville, Graduate School
- Must apply for the certificate online through the Office of Graduate Admissions

Non-course requirements

To receive the certificate, students must:
- Complete the Graduate Certificate Course Verification Form
- Apply to graduate from the certificate program through MyUTK

Required courses (6 credit hours):
- BCMB 562 Introduction to Electron Microscopy of Biological Samples OR
  BCMB 563 Principles and Applications of Optical Microscopes in Biology
- MICR 639 Introduction to Flow Cytometry and Sorting

Elective courses (at least 6 credit hours from the following list):
- MICR 431 Advanced Immunology
- MICR 435 Quantitative analysis of biological data
- BCBM 523 Plant Growth and Development
- BCMB 562 Introduction to Electron Microscopy of Biological Samples
- BCMB 563 Principles and Applications of Optical Microscopes in Biology
- BMCB/MICR 590 Introduction to Membrane Biology
- EEB 414 Plant Anatomy
- EEB 513 Art and Organism - Integrative Biology of Aesthetic Experience
- LFSC 507 Programming for Biological Data Analysis
- MICR 520 Microbial Pathogenesis

Rationale: Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academia, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations.

Impact on Other Units: The certificates were developed around existing coursework or technologies offered through core facilities, recharge centers, or other support units. In each track, we endeavored to have the required courses include both theory behind the technology/approach and, wherever possible, and hands-on experiential component to help students gain skills in applying the technology/approach. The recommended elective courses are those that offer didactic theory and classroom instruction on data processing, analysis, and interpretation relevant to the technology covered in the required courses. A distinctive aspect of the proposed certificates/degree is that some of the required courses can be offered by the core/recharge center technical staff who have the appropriate technical skills. As already occurs for some courses included in the proposed certificates, such “faculty of practice” would have dual roles in overseeing their core facilities/recharge center services and in instruction for applications-based curriculum.

Financial Impact: We do not anticipate the certificates will require significant investments of faculty time, except for an inter-departmental committee (TTF and NTTF) tasked with review of applications, monitoring of certificate requirement completion, and advising students when needed. The certificates may increase enrollment in the proposed required and elective courses, and offering a certificate is coupled with a commitment that required courses be offered consistently and with sufficient capacity to accommodate certificate seekers. The certificates are intended, in part, to gauge the extent of this interest so that we can adjust the course offerings accordingly.

ADD CERTIFICATE

Analytical Approaches in Biology - Biomolecular Analysis Graduate Certificate

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Analytical Approaches in Biology - Biomolecular Analysis Graduate Certificate

The Analytical Approaches in Biology - Biomolecular Analysis Graduate Certificates is offered by the Biological Sciences Division. Applicants can be currently admitted to a degree program at UTK or can apply solely for the Analytical Approaches in Biology Certificate through the Graduate Admissions Office. The applicants are expected to have a baccalaureate degree in a natural science discipline with a minimum GPA of 3.00. Students from other disciplines may be admitted but may be required to take prerequisite courses as described in the Graduate Catalog. Recommended background knowledge includes organismal and ecological biology, cellular and molecular biology, physics, and math. Applicants may be admitted to the certificate or complete the certificate as part of an MS or PhD. This certificate will enable students to accomplish the following:
Acquire knowledge of the theoretical basis of biomolecular analytical techniques used to investigate biological systems.
Apply knowledge of biomolecular techniques to the generation of experimental data
Analyze and interpret biological data generated from biomolecular analytical technologies

Campus Code
Knoxville Campus

Graduate Certificate Type
Add on
Stand-Alone

Credit Hours Required
12 graduate credit hours

Admissions Standards/Procedures
Applicants must meet the minimum admissions requirements of the University of Tennessee, Knoxville, Graduate School
Must apply for the certificate online through the Office of Graduate Admissions

Non-course Requirements
To receive the certificate, students must:
- Complete the Graduate Certificate Course Verification Form
- Apply to graduate from the certificate program through MyUTK

Required courses (6 credit hours):
- BCMB 5XX Biophysical Methods OR LFSC 695 Biological Mass Spectrometry
- MICR 679 Advanced Techniques in Nucleic Acid Sequencing

Elective courses (at least 6 credit hours from the following list):
- BCMB 419 Cellular and Comparative Biochemistry lab
- BCMB 511 Advanced Protein Chemistry and Cellular Biology
- BCMB 512 Advanced Molecular Biology
- BCMB 518 Biophysical Chemistry
- BCMB 5XX Biophysical Methods
- BCMB 422/522 Computational Genomics and Bioinformatics
- BMCB/MICR 590 Introduction to Membrane Biology
- EEB 587 Phylogenetic Methods
- LFSC 507 Programming for statistical and graphical analysis of biological data
- LFSC 520 Genetics and Genomics
- LFSC 695 Biological Mass Spectrometry
- MICR 435 Quantitative analysis of biological data
- MICR 540 Genomics and Bioinformatics

Rationale: Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academia, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations.

Impact on Other Units: The certificates were developed around existing coursework or technologies offered through core facilities, recharge centers, or other support units. In each track, we endeavored to have the required courses include both theory behind the technology/approach and, wherever possible, a hands-on experiential component to help students gain skills in applying the technology/approach. The recommended elective courses are those that offer didactic theory and classroom instruction on data processing, analysis, and interpretation relevant to the technology covered in the required courses. A distinctive aspect of the proposed certificates/degree is that some of the required courses can be offered by the core/recharge center technical staff who have the appropriate technical skills. As already occurs for some courses included in the proposed certificates, such "faculty of practice" would have dual roles in overseeing their core facilities/recharge center services and in instruction for applications-based curriculum.

Financial Impact: We do not anticipate the certificates will require significant investments of faculty time, except for an inter-departmental committee (TTF and NTTF) tasked with review of applications, monitoring of certificate requirement completion, and advising students when needed. The certificates may increase enrollment in the proposed required and elective courses, and offering a certificate is coupled with a commitment that required courses be offered consistently and with sufficient capacity to accommodate certificate seekers. The certificates are intended, in part, to gauge the extent of this interest so that we can adjust the course offerings accordingly.
ADD CERTIFICATE

Analytical Approaches in Biology - Field Analytical Techniques

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Analytical Approaches in Biology - Field Analytical Techniques

Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academia, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations.

This certificate will enable students to accomplish the following:

- Acquire knowledge of the theoretical basis of field analytical techniques used to investigate biological systems.
- Apply knowledge of field analytical techniques to the generation of experimental data
- Analyze and interpret biological data generated from field analytical techniques

Certificate requirements:

Campus Code
Knoxville Campus

Graduate Certificate Type
Add on
Stand-Alone

Credit Hours Required
12 graduate credit hours

Admissions Standards/Procedures
Applicants must meet the minimum admissions requirements of the University of Tennessee, Knoxville, Graduate School
Must apply for the certificate online through the Office of Graduate Admissions

Non-course Requirements
To receive the certificate, students must:
- Complete the Graduate Certificate Course Verification Form
- Apply to graduate from the certificate program through MyUTK

Required courses (6 credits total)
- EEB 611 (4CR) Field Ecology
- MICR 669 (3CR) Advanced Techniques in Field Microbiology

Elective courses (Take 6 credits total from the list below)
- EEB 601 Natural History Collections Research
- EEB 602 Field Botany
- EEB 602 Ecosystem Ecology lab
- EEB 602 Ecosystem Ecology
- EEB 611 Herpetology
- EEB 603 Diversity, Ecology & Evolution of Fishes
- MICR 470 Microbial Ecology

Rationale: Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academia, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations.

Impact on Other Units: The certificates were developed around existing coursework or technologies offered through core facilities, recharge centers, or other support units. In each track, we endeavored to have the required courses include both theory behind the technology/approach and, wherever possible, and hands-on experiential component to help students gain skills in applying the technology/approach. The recommended elective courses are those that offer didactic theory and classroom instruction on data processing, analysis, and interpretation relevant to the technology covered in the required courses. A distinctive aspect of the proposed certificates/degree is that some of the required courses can be
offered by the core/recharge center technical staff who have the appropriate technical skills. As already occurs for some courses included in the proposed certificates, such “faculty of practice” would have dual roles in overseeing their core facilities/recharge center services and in instruction for applications-based curriculum.

Financial Impact: We do not anticipate the certificates will require significant investments of faculty time, except for an inter-departmental committee (TTF and NTTF) tasked with review of applications, monitoring of certificate requirement completion, and advising students when needed. The certificates may increase enrollment in the proposed required and elective courses, and offering a certificate is coupled with a commitment that required courses be offered consistently and with sufficient capacity to accommodate certificate seekers. The certificates are intended, in part, to gauge the extent of this interest so that we can adjust the course offerings accordingly.

ADD CERTIFICATE

Analytical Approaches in Biology Certificate - Concentration: Mathematical and Statistical Analysis

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Analytical Approaches in Biology Certificate - Concentration: Mathematical and Statistical Analysis

Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academia, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations. This certificate will enable students to accomplish the following:

- Acquire knowledge of the theoretical basis of mathematical and statistical techniques used to investigate biological systems.
- Apply knowledge of mathematical and statistical techniques to the generation of experimental data
- Analyze and interpret biological data generated from mathematical and statistical techniques

Campus Code
Knoxville Campus

Graduate Certificate Type
Add on
Stand-Alone

Credit Hours Required
12 graduate credit hours

Admissions Standards/Procedures
Applicants must meet the minimum admissions requirements of the University of Tennessee, Knoxville, Graduate School
Must apply for the certificate online through the Office of Graduate Admissions

Non-course Requirements
To receive the certificate, students must:
- Complete the Graduate Certificate Course Verification Form
- Apply to graduate from the certificate program through MyUTK

Required Courses
Choose two courses from category A (6 credits) and 2 courses from either category A or category B (6 credits)

Category A
- EEB 560 Biometry
- EEB 610 Models in Biology
- LFSC 507 Programming for Biological Data Analysis
- MICR 435 Quantitative Analysis of Biological Data

Category B
- EEB 587 Phylogenetic Methods
- MICR 575 Reproducible Data Analysis
- EEB 581 Mathematical Ecology
- EEB 610 Conversational Biomathematical Modeling

Rationale: Technological advances have revolutionized the study of biological systems, enabling acquisition of interrogation of datasets of unprecedented depth and complexity. Training the research and development workforce of the future must include a solid
foundation in the theory, application, and data analyses pertaining to these analytical approaches. Students with this background will be better prepared for careers in research or research-related activities in academic, government, and private sectors, including as technologists who manage core facilities, as coordinators for field research programs, and as R&D and sales representatives for biotechnology corporations.

Impact on Other Units: The certificates were developed around existing coursework or technologies offered through core facilities, recharge centers, or other support units. In each track, we endeavored to have the required courses include both theory behind the technology/approach and, wherever possible, and hands-on experiential component to help students gain skills in applying the technology/approach. The recommended elective courses are those that offer didactic theory and classroom instruction on data processing, analysis, and interpretation relevant to the technology covered in the required courses. A distinctive aspect of the proposed certificates/degree is that some of the required courses can be offered by the core/recharge center technical staff who have the appropriate technical skills. As already occurs for some courses included in the proposed certificates, such “faculty of practice” would have dual roles in overseeing their core facilities/recharge center services and in instruction for applications-based curriculum.

Financial Impact: We do not anticipate the certificates will require significant investments of faculty time, except for an inter-departmental committee (TF and NTTF) tasked with review of applications, monitoring of certificate requirement completion, and advising students when needed. The certificates may increase enrollment in the proposed required and elective courses, and offering a certificate is coupled with a commitment that required courses be offered consistently and with sufficient capacity to accommodate certificate seekers. The certificates are intended, in part, to gauge the extent of this interest so that we can adjust the course offerings accordingly.

DEPARTMENT OF MODERN FOREIGN LANGUAGE AND LITERATURES

UNDER FRENCH MAJOR, MA, REVISE AS FOLLOWS:

1) Revise description to:
The Master of Arts in French is a two-year program designed to prepare students for a variety of career options as well as a PhD program in French literature and culture. We offer tuition waivers and GTA stipends on a competitive basis. Students on an assistantship receive teaching training during their first year and teach lower-division French courses their second year.

Formerly:
The Master of Arts in French is a two-year program and has literary emphasis. Students can sometimes pursue coursework in other fields of interest, such as Linguistics, Cinema, and Africana Studies. We offer tuition waivers and GTA stipends on a competitive basis. We offer teaching training during the first year and teach lower-division French courses their second year in the program.

2) Revise Options available to:
Thesis or Project Option
Coursework Only Without Comprehensive Exam Option

Formerly:
Thesis Option
Coursework Only with Comprehensive Exam Option

3) Revise admissions Standards/Procedures to:
   ● Submit an online application to the Office of Graduate Admissions.
   ● A student should have already completed a major or the equivalent of a major (usually 30 hours) in French or a related field.
   ● Although the Graduate Council requires a minimum grade point average of 2.70 (on a scale of 4.00) for admission to the UT Graduate School, prospective students should note that the grade point average of 3.50 (on a 4.00 scale) in all coursework of their major (French or a related field) in order to be admitted to the MA program.
   ● When evaluating a student’s application dossier, the Graduate Admissions Committee looks for high-quality, committed students who will add diversity, intellectual liveliness, and energy to the program.

Formerly:
   ● Submit online application to the Office of Graduate Admissions.
   ● A student should have already completed a major or the equivalent of a major (usually 30 hours) in their main discipline (French or a related field, German, or Spanish).
   ● Although the Graduate Council requires a minimum grade point average of 2.70 (on a scale of 4.00) for admission to the UT Graduate School, prospective students should note that the grade point average of 3.50 (on a 4.00 scale) in all coursework of their major (French, German, Spanish, or a related field) in order to be admitted to the MA programs in French, German, or Spanish.
In making its decision, the Admissions Committee considers grades, recommendations, a statement of goals (in English and in the target language), and 2 writing samples (ideally, one in English and one in the target language).

When evaluating a student’s application dossier, the Graduate Admissions Committee looks for high-quality, committed students who could complete the program successfully, and who will add diversity, intellectual liveliness, and energy to the program.

4) Under Thesis, change heading and revise to:
Thesis or Project Option
Students who choose the thesis or project option either demonstrate their research skills by writing a thesis or produce a project that demonstrates their mastery of a subfield of French studies. The student will work closely with a faculty member who specializes in their field of interests. Additional information can be found in the MFLL Graduate Handbook available on the department’s webpage.

Formerly:
Thesis Option
Students who choose the thesis option demonstrate their research skills by submitting a thesis and passing an oral examination on it and on related matters. The student will work closely with a faculty member who specializes in their field of interests. Additional information can be found in the MFLL Graduate Handbook available on the department’s webpage.

5) Under thesis, required courses, remove the second sub-bullet:
 ● Completion of a minimum of 24 credit hours of coursework.
   ○ A maximum of 6 credit hours may be taken at the 400-level; the rest at the 500-level.

Formerly:
 ● Completion of a minimum of 24 credit hours of coursework.
   ○ A maximum of 6 credit hours may be taken at the 400-level; the rest at the 500-level.
   ○ Under certain conditions, the student may take 600-level seminars.

6) Under Thesis, revise additional course requirements to:
 ● MFLL 512 is required for all new GTAs and counts toward the 30 hours.

Formerly
 ● MFLL 512 is required for all new GTAs.

7) Under Thesis, revise non-course requirements to:
 ● The thesis committee must be established, and a formal proposal approved by the beginning of the third semester of coursework.
 ● The final oral defense of the thesis or project must take place during the final semester by the deadline set by the Graduate School
   ○ The thesis will be 70-100 pages in length.
   ○ The nature of the project will be determined by the director.

Formerly:
 ● The thesis committee must be established, and a formal proposal approved by the end of the second semester of coursework.
 ● The thesis must be completed by the end of the fourth semester of coursework.
   ○ The thesis will be 70-100 pages in length.
 ● A written examination covering the coursework and selected items from a master reading list (two fields)
 ● A final oral examination covering the thesis.

8) Revise Coursework Only with Comprehensive Exam Option heading to
Coursework only Option

Formerly:
Coursework Only with Comprehensive Exam Option heading

9) Under Coursework only, revise required courses to:
 ● Completion of at least 30 graduate credit hours of coursework
   ○ A maximum of 9 credit hours at the 400-level (those 400-level courses that appear in the Graduate Catalog for graduate credit)
   ○ The remainder at the 500-level
Formerly

- Completion of at least 30 graduate credit hours of coursework
  - A maximum of 9 credit hours at the 400-level (those 400-level courses that appear in the Graduate Catalog for graduate credit)
  - The remainder at the 500-level
  - Under certain conditions, the student may take 600-level seminars.
- If the student chooses to have a minor (such as Italian or Portuguese), at least 24 credit hours must be taken in the major and 6 credit hours in the minor.

10) Under Coursework only, revise Additional Course Requirements to

- MFLL 512 required for all new GTAs and counts toward the 30 hours.

Formerly:

- MFLL 512 required for all new GTAs.

11) Under Coursework only, remove Non-Coursework Requirements

Formerly:

Non-Course Requirements
  - A written examination covering the course work and selected items from a master reading list (three fields)

12) Under Five-Year BA/MA Program – French Major, MA, revise description as follows

For qualified students, the Department of Modern Foreign Languages and Literatures offers a 5-year BA-MA program with a BA major in Modern Foreign Languages and Literature — French and Francophone Studies concentration and a French major, MA (coursework only option). The primary component of the program is that a qualified student may take up to 9 credit hours of approved graduate courses for their senior undergraduate electives and have them count toward both the BA degree and the MA degree. Qualifications for admission to the program are:

Formerly:

For qualified students, the Department of Modern Foreign Languages and Literatures offers a 5-year BA-MA program with a BA major in Modern Foreign Languages and Literature — French and Francophone Studies concentration and a French major, MA (coursework only option with comp exam). The primary component of the program is that a qualified student may take up to 9 credit hours of approved graduate courses for their senior undergraduate electives and have them count toward both the BA degree and the MA degree. Qualifications for admission to the program are:

Rationale: Our previous MA was designed exclusively for students preparing to go on to a PhD program in French literature. The revised program keeps this possibility intact while allowing students interested in other career paths to focus on other interests. Impact on other units: none. Financial impact: none

UNDER GERMAN MAJOR, MA, ADMISSIONS STANDARDS/PROCEDURES, REMOVE THE 4TH BULLET POINT

Formerly:

In making its decision, the Admissions Committee considers grades, recommendations, a statement of goals (in English and in the target language), and 2 writing samples (ideally, one in English and one in the target language).

Rationale: We are changing the admissions requirements and noticed that most programs do not include this material in the catalog; removing these passages will make it easier to make changes in the future. Impact on other units: none. Financial impact: none

UNDER SPANISH MAJOR, MA, ADMISSIONS STANDARDS/PROCEDURES, REMOVE THE 4TH BULLET POINT

Formerly:

In making its decision, the Admissions Committee considers grades, recommendations, a statement of goals (in English and in the target language), and 2 writing samples (ideally, one in English and one in the target language).

Rationale: We are changing the admissions requirements and noticed that most programs do not include this material in the catalog; removing these passages will make it easier to make changes in the future. Impact on other units: none. Financial impact: none
ADD CERTIFICATE

Graduate Translation Certificate

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Graduate Translation Certificate
The Graduate Translation Certificate is intended for students from all graduate programs at UT as well as post-BA students in French, German, or Spanish seeking a stand-alone experience. The Certificate is designed to develop expertise in the language of choice and to provide foundational knowledge of translation theory.

Campus Code
Knoxville Campus

Graduate Certificate Type
Add-On
Stand-Alone

Admissions Standards/Procedures
Certificate candidates must currently be admitted to a graduate program at the university or hold a terminal degree and apply solely for the certificate through the Graduate Admissions Office. Students may take up to 6 graduate credit hours of certificate classes before making formal application to the Graduate Translation Certificate. Students must select their 6 hours of graduate language coursework in conjunction with the Graduate Coordinator in their chosen program (French, German, or Spanish); these 6 hours must consist of courses taught in the target language.

Academic Standards
Students must maintain a cumulative GPA of at least 3.0 on all graduate courses in the program. All courses must be completed at UTK within five years of admission to the certificate program.

Credit Hours Required:
12 graduate credit hours

Required Courses:
- MFLL 560 Translation Theory
- LING 540 Translation, Linguistics, and Context
- 6 hours of courses from the Graduate Catalog in French, German, or Spanish; courses must be taught in the target language and pre-approved by the appropriate Graduate Program Coordinator.

*Students may request substitution for one of the required courses listed in this bullet; requires approval from the certificate coordinator

Additional Course Requirements: N/A

Non-Course Requirements:
- Complete the Graduate Certificate Course Verification Form (located on the Graduate School webpage under the Forms Central tab)
- Apply to graduate from the certificate program prior to completing six graduate credit hours toward the certificate through MyUTK.

Rationale: Many students in the MFLL graduate programs (MAs in French, German, or Spanish; PhD in MFLL with a first concentration in French, German, or Spanish) are interested in a career that includes the practice of translation. This new certificate will provide them with the means to demonstrate expertise in the theory and practice of translation as well as to pass the American Translators Association exam, should they wish to do so. Students currently enrolled in other graduate programs at UT with advanced language skills in French, German, or Spanish will be welcome in this certificate program, as well as qualified post-BA applicants seeking a stand-alone certificate. Impact on other units: none. Financial impact: none. CIP code: 16.0103 Language Interpretation and Translation.
SCHOOL OF MUSIC

ADD CERTIFICATE

Artistic Certificate in Brass Performance

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Artistic Certificate in Brass Performance

Campus Code
Knoxville Campus

Graduate Certificate Type
Stand-Alone

Admissions Standards/Procedures
Applicants to this graduate certificate must hold a minimum of the bachelor’s degree or equivalency and follow the procedures and regulations for applying for admission to graduate study at the University of Tennessee, Knoxville, and the Graduate Division of the School of Music. Required credentials for admission to the School of Music include:

- A completed online application submitted to the Graduate Admissions Office
- University admissions application fee
- Official transcripts of all post-secondary studies
- Two letters of recommendation, and a repertoire list
- Applicants whose native language is not English are required to take and pass the Test of English as a Foreign Language (TOFEL) or the International English Language Testing System (IELTS). Passing marks are 550, 80, and 6.5 for paper-based, internet-based (IBT) TOEFL, and IELTS respectively.

Final admission to the certificate program is granted following successful completion of a thirty-minute admission audition. The audition repertoire should include selections demonstrating the student’s ability to perform in various musical styles. If distance to the audition is a hardship, applicants may submit a thirty-minute video (public performance preferred). The student must also present a live audition before a designated faculty committee during the first semester of residence.

Once accepted, all students are required to take the diagnostic examinations in musicology, area literature, music theory, and ear training before registering for courses. The examinations are given on the first day of registration each semester, beginning at 9:00 a.m. and concluding at approximately 4:00 p.m. Each entering student should notify the graduate administrative assistant to indicate the semester that s/he intends to enter and take the examinations.

Academic Standards
Cumulative graduate GPA of 3.00 or better

Credit Hours Required
23 graduate credit hours

Required Courses
- Private Instruction 8 credits
- MUSC 503 (Solo Class) 0 (each semester enrolled)
- Music Ensemble 4 credits
  - (Any MUEN 2)
  - (Chamber Music 2)
- Brass Pedagogy and Literature 3 credits
- Music Electives 4 credits
- Graduate Recitals (2 credits each) = 4 credits
Total: 23

Notes:
1) Ensemble Participation is required during each semester of residence.
2) Classes chosen to fulfill the music electives requirements may include a maximum of 2 hours of MUEN.
3) Brass Pedagogy and Literature will be fulfilled through MUSC521 – Special Topics

Rationale: This certificate targets changes pertaining to the evolving needs of students entering the field of music who may not need the traditional Master of Music degree to pursue a career in music. An Artist Certificate in brass expands our curriculum and the
attractiveness of graduate study in brass for those students. Inquiries and requests for this program have consistently been received by brass faculty in past years. We anticipate keeping this degree to a select group of students with high professional promise.

ADD CERTIFICATE

Artist Certificate in Voice Performance

In the 2023-24 Graduate Catalog, add heading, text and requirements for new certificate.

Campus Code
Knoxville Campus

Graduate Certificate Type
Stand-Alone

Admissions Standards/Procedures
Applicants to this graduate certificate must hold a minimum of the bachelor’s degree or equivalency and follow the procedures and regulations for applying for admission to graduate study at the University of Tennessee, Knoxville, and the Graduate Division of the School of Music. Required credentials for admission to the School of Music include:

- A completed online application submitted to the Graduate Admissions Office
- University admissions application fee
- Official transcripts of all post-secondary studies
- Two letters of recommendation, and a repertoire list
- Applicants whose native language is not English are required to take and pass the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Passing marks are 550, 80, and 6.5 for paper-based, internet-based (IBT) TOEFL, and IELTS respectively.
- In addition to applying to the University of Tennessee, Knoxville Graduate School, applicants must apply to the School of Music through the Accepted portal on the School of Music website.

Final admission to the certificate program is granted following successful completion of a thirty-minute admission audition. The audition repertoire should include selections demonstrating the student’s ability to perform in various musical styles. If distance to the audition is a hardship, applicants may submit a thirty-minute video (public performance preferred). The student must also present a live audition before a designated faculty committee during the first semester of residence.

Once accepted, all students are required to take the diagnostic examinations in musicology, area literature, music theory, and ear training before registering for courses. The examinations are given on the first day of registration each semester, beginning at 9:00 a.m. and concluding at approximately 4:00 p.m. Each entering student should notify the graduate administrative assistant to indicate the semester that s/he intends to enter and take the examinations.

Academic Standards
Cumulative graduate GPA of 3.00 or better

Credit Hours Required
23 graduate credit hours

Required Courses
- Private Instruction (8)
- MUSC 503 (Solo Class) 0 (each semester enrolled)
- Music Ensemble (MUEN 540) 2
- Area Literature 7
- Music Electives 3
- Graduate Recitals 2
Total: 23

Rationale: This certificate targets changes pertaining to the evolving needs of students entering the field of music who may not need the traditional Master of Music degree to pursue a career in music. An Artist Certificate in voice expands our curriculum and the attractiveness of graduate study in voice for those students. Inquiries about this possible program have been consistently received by the voice faculty in recent years. We anticipate keeping this certificate to a select group of students with high professional promise.
DEPARTMENT OF PSYCHOLOGY

Psychology Major, PhD

Under Clinical Psychology concentration, required courses, second bullet: Satisfactory completion of listed courses (or equivalents) in the following categories, revise the list as follows:

- PSYC 527
- PSYC 511
- PSYC 509
- PSYC 515
- PSYC 570
- PSYC 597
- PSYC 565
- PSYC 577
- PSYC 607
- PSYC 645
- PSYC 580
- PSYC 594-PSYC 595 and Laboratory PSYC 596
- PSYC 521 and PSYC 522 [or approved courses from Statistics (STAT)]
- PSYC 550
- PSYC 695
- PSYC 599
- PSYC 598
- PSYC 670-PSYC 671 and Laboratory PSYC 673
- PSYC 698

Formerly:
- PSYC 527
- PSYC 511
- PSYC 509
- PSYC 515
- PSYC 570
- PSYC 597
- PSYC 565
- PSYC 577
- PSYC 607
- PSYC 645
- PSYC 580
- PSYC 594-PSYC 595 and Laboratory PSYC 596
- PSYC 521 and PSYC 522 [or approved courses from Statistics (STAT)]
- PSYC 550
- PSYC 695
- PSYC 599
- PSYC 598
- PSYC 670-PSYC 671 and Laboratory PSYC 673

Rationale: This adds PSYC 698 to the list of required courses. Unless it is required, the American Psychological Association (APA) will not count it towards the clinical program’s accreditation in the areas of supervision and consultation. The program has been accredited by APA since 1949.