# University Course Review Committee

**Agenda**

**Meeting #317**

**March 24, 2022 – 3-5pm**

**Additional Items of Discussion:** Proposal to change the CARF submission deadline to two weeks before the meetings to allow for adequate review time for the CCNS and UCC. This would go into effect late summer, early fall 2022. We would like to open the discussion for thoughts and feedback.

**Per Warrie’s email:** Discuss an additional meeting time (4/7 or 4/14) for CARFs that need to be entered into the 22-23AY catalog.

**Part I – Consent Agenda (modifications only)**

Modify

**AGNR**

**ENTO 1101**

**Pests, Plagues and Plants**

**Proposed Term:** Spring 2023

**Rationale:** I have taught AECL 1101 as an accepted first year seminar (FYS) since 2017 but the AECL prefix is being discontinued by the Plant Sciences Departmetn. Plant Sciences has its own FYS: PLNT 1101. I propose to teach AECL 1101 as ENTO 1101. The course is about insects in large part, so the ENTO prefix is sensible.

 Modify

**AGNR**

**MOLB 4440/5440**

**Micobial Genetics**

**Current Crs Descript:** Discusses microbial genetic approaches to study cell function and provides a molecular foundation for understanding how genes work to elicit phenotypes. (offered spring semester)

**Proposed Crs Descript:**  Discusses molecular approvahes to understand the fundamental beassi of genetics and gene function. Additionally, the course builds on a moelcular biology foundation of how cellualar processes work and are experimentally investigated with a focus on bacteria. (Offered spring semester)

**Current prereqs:**  MOLB/MICR 2021 or 2240 and LIFE 3050

**Proposed prereqs:** MOLB/MICR 2021 or MOLB/MICR 2240, and LIFE 3050, and MOLB 3610 or CHEM 4400 or MOLB 3000

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** Most of the 4000-level MOLB courses require that students have already taken MOLB 3610 Principles of Biochemistry or CHEM 4400 Biological Chemistry or in some cases, MOLB 3000 Introduction to Molecular Biology. To offer MOLB 4440/5440 to students with a more consistently advanced background, including graduate students in this dual-listed class, we propose to increase the prerequisites for this course. Requiring all students in the class to have the proposed prerequisites should not add a burden to the students because MOLB/MICR 2021, MOLB 3610 Principles of Biochemistry and LIFE 3050 Genetics are required for all MOLB and MICR majors, the main source of enrollment for this course. Students with a more thorough background will have a much better change of success in MOLB 4440 with this change.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: MOLB 5440

 Modify

**AS**

**CRMJ 2685**

**Research Methods in CJ**

**Proposed Course Title: Research Methods**

**Current Crs Descript:** Introduces students to fundamental issues associated with the application of scientific methods to social science problems. Students examine research designs involving ethnographic, archival, historical, and quantitative methods and how they relate to social science issues.

**Proposed prereqs:** CRMJ 1001 OR SOC 1000

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** As part of the recent merger between Sociology and Criminal Justice, we have been exploring ways to merge courses that can increase efficiency and cover the teaching needs of both programs. Since these courses cover very similar content, it will be beneficial for both programs to combine the two separate existing research methods courses into one research methods for both programs. The current criminal justice methods course will be renamed and cross-listed with sociology. The current sociology methods course would then be dropped. Both criminal justice and sociology majors would then take the new combined methods course.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Criminal Justice or Sociology majors and minors

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: SOC 2685

 Modify

**AS**

**PSYC 5400**

**Clinical Assessment I**

**Proposed Course Title: Assessment: Cog-Achievement**

**Proposed Crs Descript:**  First semester of a three semester practicum course in psychological assessment at the doctoral level. During the semesters, extensive examination is made regarding the standardization, relevant application, and significant limitations of assessment techniques. A thorough grounding is interpretation, and communication of the results of psychological evaluation both in writing and in consultation with referral sources. Normally taken during the first year of the doctoral program.

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** We would like to change the title of this course to better describe the actual content of the material. This change will help our clinical psychology graduates who are applying for licensure to more easily demonstrate that this course fulfills specific requirements of some states.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** restricted to doctoral students in clinical psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**AS**

**PSYC 5410**

**Clinical Assessment II**

**Proposed Course Title: Assessment: Theory&Personality**

**Proposed Crs Descript:**  Second semester of a full-year practicum course in psychological assessment at the doctoral level.

**Current prereqs:**  PSYC 5400

**Proposed prereqs:** PSYC 5400

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** We would like to change the title of this course to better describe the actual content of the material. This change will help our clinical psychology graduates who are applying for licensure to more easily demonstrate that this course fulfills specific requirements of some states.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** restricted to doctoral students in clinical psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**AS**

**PSYC 5470**

**Empirically Supported Psychoth**

**Proposed Course Title: Evidence-based Treatments**

**Proposed Crs Descript:**  Students become familiar with the efficacy and effectiveness of important state-of-the-art treatments with a focus on treatments of mood and anxiety disorders. Course goals include gaining a critical understanding of the issues involved in identifying psychological treatments that work.

**Proposed prereqs:** PSYC 5380; PSYC 5510

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** This title is being updated to reflect contemporary language in the field. The concept of empirically supported psychotherapies has been replaced by the broader term evidence-based treatments. The course title reflects the updated language.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** restricted to doctoral students in clinical psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**AS**

**PSYC 5520**

**Introduction to Research**

**Proposed Course Title: Advanced Research Methods**

**Proposed Crs Descript:**  Introduction to problems and issues in research methodology. Ongoing research directed by various faculty are used as paradigms for conceptualization of research problems. Students critically evaluate projects presented and begin planning for research leading to theses and dissertations.

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** This course name change is meant to better capture the content of this graduate level class and to further distinguish it from our undergraduate Research Methods class.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** graduate status in psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**AS**

**PSYC 5500**

**Psychopathology I**

**Proposed Course Title: Developmental Psychopathology**

**Proposed Crs Descript:**  Students will obtain research-based knowledge in developmental psychopathology via lectures, discussions, and student presentations. This course will cover disorders that usually begin in childhood and how these disorders manifest across the lifespan. The course will also cover disorders that begin later and how these disorders manifest in children and adolescents.

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** We would like to change the title of this course to better describe the actual content of the material. This change will help our clinical psychology graduates who are applying for licensure to more easily demonstrate that this course fulfills specific requirements of some states. In addition, we are changing the names of Psychopathology I and II as the numbers suggest that the courses must be taken in sequence when often students take II before I

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** restricted to doctoral students in clinical psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**AS**

**PSYC 5510**

**Psychopathology II**

**Proposed Course Title: Adult Psychopathology**

**Proposed Crs Descript:**  Students will obtain research-based knowledge of both descriptive and explanatory adult psychopathology. In addition to learning how adult mental disorders present, students will acquire a framework for understanding the multiple variables that interact over the lifespan to influence adult psychopathology.

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** We would like to change the title of this course to better describe the actual content of the material. This change will help our clinical psychology graduates who are applying for licensure to more easily demonstrate that this course fulfills specific requirements of some states. In addition, we are changing the names of Psychopathology I and II as the numbers suggest that the courses must be taken in sequence when often students take II before I

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** restricted to doctoral students in clinical psychology

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**CB**

**FIN 3250/2100**

**Corporate Finance**

**Proposed Course Title: Principles of Finance**

**Current Crs Descript:** Deals with management of capital in a business firm. It treats policies and actions relating to asset structure, risk, income and cash flows. Operating and financial analysis is introduced.

**Proposed Crs Descript:**  Studies the management of capital in a business. Students learn how to use the time value of money to value cash flows and how to perform a financial valuation of a firm's assets and liabilities.

**Current prereqs:**  ACCT 2010, AMTH 2350 or MATH 2200, and STAT 2010, STAT 2050, or STAT 2070

**Proposed prereqs:** ACCT 2010, MATH 2350 or MATH 2355 or MATH 2200, and STAT 2010, STAT 2050, or STAT 2070, all with C or better

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** The College of Business is adjusting some course numbers to be in alignment with the Common Course Numbering system.

 Modify

**CB**

**IMGT 1400/2400**

**Intro to Bus Analysis**

**Proposed Course Title: Intro to Information Mgt.**

**Proposed Term:** Fall 2022

**Rationale:** Making the course numbering consistent with the common course numbering.

 Modify

**ED**

**EDRE 5620**

**Educational Research: Correlat**

**Proposed Course Title: Correlational Research**

**Current Crs Descript:** Concepts of correlational research, statistics, and measurement. Focus is on the design and analysis of results from correlational studies. Statistical topics include MANOVA, multiple regression, factor analysis, and discriminant analysis. Includes measurement topics in classical measurement theory and additional topics in validity and reliability. Plan, conduct, and report on a correlational study.

**Current prereqs:**  EDRE 5530 and EDRE 5600

**Proposed prereqs:** EDRE 5600

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We are modifying the prerequisite of EDRE 5530, If students have taken EDRE 5600 (which will remain a prerequisite) then they have had EDRE 5530 or the equivalent in a master program. This will reduce the number of overrides that need to be conducted. We are also dropping "Educational Research" from the title of the course to meet the maximum character length. Dropping those words also ensure a more accuarate representation of the course on a student's transcript.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Grading system:**  A/F

 Modify

**ED**

**EDRE 5655**

**Ethnography and Narrative Inqu**

**Current Crs Descript:** In-depth exploration of narrative inquiry (including autoethnography) and educational ethnography. Issues of ethics, politics, diversity, and the researcher's role will be integral to the course. Students will conduct and report on a mini study.

**Current prereqs:**  EDRE 5530 and EDRE 5640

**Proposed prereqs:** EDRE 5640

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We are modifying the prerequisite for EDRE 5530. If students have taken EDRE 5640 then they have taken EDRE 5530 or the equivalent in a Master's program. This will reduce the number of overrides that need to be conducted.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Grading system:**  A/F

 Modify

**ED**

**EDRE 5630**

**Educational Research IV: Multi**

**Proposed Course Title: Multivariate Research**

**Current Crs Descript:** An advanced educational research, statistics, and measurement course. Design and analysis of results from studies with several dependent and independent variables. Includes multivariate statistics such as MANOVA, discriminant analysis, canonical correlation, multidimensional scaling, structural equation moddeling, logit regression. Measurement topics include generalizability theory, item response theory, equating, and standard setting.

**Current prereqs:**  EDRE 5530 and EDRE 5600, EDRE 5610, and EDRE 5620

**Proposed prereqs:** At least one of the following: EDRE 5610 or EDRE 5620

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We are modifying the prerequisite of EDRE 5530, If students have taken EDRE 5600. If students have taken EDRE 5610 or EDRE 5620 then they have take both of those courses or the equivalent. This will reduce the number of overrides that need to be conducted. We are adding 'or' between the prerequisites of EDRE 5610 and EDRE 5620. This will allow students who have taken at least one of those courses to take EDRE 5630. We are also dropping "Educational Research" from the title of the course to meet the maximum character length. Dropping those words also ensure a more accurate representation of the course on a student's transcript.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Grading system:**  A/F

 Modify

**ED**

**EDRE 5645**

**Phenomenology, Case Study, and**

**Current Crs Descript:** In-depth examination of phenomenology (with great emphases on its philosophical roots), qualitative case study, and grounded theory. Characteristics of each qualitative tradition will be explored by way of critiquing published peer reviewed journal asrticles. Students will conduct and report on a mini study.

**Current prereqs:**  EDRE 5530 and EDRE 5640

**Proposed prereqs:** EDRE 5640

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We are modifying the prerequisite for EDRE 5530. If students have taken EDRE 5640 then they have taken EDRE 5530 or the equivalent in a Master's program. This will reduce the number of overrides that need to be conducted.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Grading system:**  A/F

 Modify

**EN**

**ARE/ME 4740**

**Mechanical System Design**

**Current Crs Descript:** Final course in the building mechanical systems sequence incorporating elements of previous design courses by executing design of a hypothetical building with a concentration on a detailed design of the project's mechanical systems.

**Current prereqs:**  ARE/ME 3400 HVAC of Buildings

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** In ARE/ME 3400 HVAC of Buildings, ARE/ME 4430 HVAC Design and Analysis , ARE/ME 4490 Modeling and Optimization of Energy Systems, there are quite some students interested and enrolled from Mechanical Engineering department. In this capstone course 4740, students apply elements learned from such courses as 3400, 4430, and 4490 into project design. Cross-listing this capstone course 4740 can provide in-depth knowledge about mechanical system design of buildings for students in both Architectural Engineering and Mechanical Engineering interested in taking building energy efficiency as their career path.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture w/ Lab

**Grading system:**  A/F

proposed crosslisting: ARE/ME 4740

 Modify

**EN**

**ATSC 5009**

**Objective Analysis in Geoscience**

**Proposed Course Title: Objective Data Analysis**

**Current Crs Descript:** Techniques for extracting information from geophysical data directly, such as compositing, time series analysis, singular value decomposition, principal component analysis, and filtering as well as some specialized topics such as wavelet analysis.

**Proposed Crs Descript:**  Techniques for extracting information from data as used in the physical science literature such as compositing, time series analysis, singular value decomposition, principle component analysis, and filtering. More recent techniques from machine learning such as artificial neural networks, self-organizing maps, and traceable AI will be presented.

**Current prereqs:**  MATH 2210 and MATH 2310 or permission of instructor

**Proposed prereqs:** MATH 2210 and MATH 2250 OR PERMISSION OF INSTRUCTOR

**Enforce in Banner?:**  N

**Proposed Term:** Fall 2022

**Rationale:** The course fills a useful function for interdisciplenary data analysis. There is substantial overlap in content with commercial offerings such as: WeCloudData Data Science Boot Camp (cost ~$12,000). Thus, offering this at a 4000 level will make it more likely that undergraduate students can graduate with an essential skill and not go outside the university at significant personal expense (see associated UG CARF). This class is taught in a realtively interdisciplinary way with no prior knowledge of atmospheric science expected. Thus, a title change is suggested to make it clear that while critival to a career in atmospheric science, these skills are not discipline-specific. The course pre-requisites should also change. Students only need to be able to take a derivative and some basic linear algebra. The pre-requisites should not be enforced on banner becuase it requires every grad student to have an override as undergrad classes are not tracked. Students will need tto have some knowledge of the Python language- which is the standard in all data analysis. There is no existing course that students can take that covers basic Python and thus it is not listed in the pre-requisites.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: ATSC 4009

 Modify

**EN**

**CHE 4070**

**Process Design I**

**Proposed Course Title: Process Simulation & Economics**

**Current Crs Descript:** Encompasses engineering design of chemical processses. Introduces engineering economics, process safety management and environmental management.

**Proposed Crs Descript:**  Introduces simulation software used to model chemical processing. Techniques used to determine economic feasibility of chemical plants are described.

**Current prereqs:**  C or better in CHE 3028, CHE 3070, and CHE 4060

**Proposed prereqs:** C or better in CHE 3028 and CHE 4060

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** This is one of three related CARF's intended to reduce the current three semester Process Design Sequence (CHE 3070 Process Simulation and Economics, CHE 4070 Process Design I, CHE 4080 Process Design II) to a two semester design sequence (CHE 4070 and CHE 4080). Like CHE 3070 (to be discontinued), CHE 4070 will consist of three parts, process economics, process simulation, and design project that combines process simulation and process economics. CHE 4070 is a four credit course, while CHE 3070 is a three credit course. The additional credit hour in CHE 4070 will be used to expand the design project (compared to CHE 3070). This design project effectively replaces the design project in CHE 3070 plus Project 1 in CHE 4070, which takes about five weeks to complete.

**Fixed/variable:** Fixed **Proposed hours:**4 **Proposed Max:** 4

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**EN**

**CHE 4080**

**Process Design I**

**Proposed Course Title: Senior Design**

**Current Crs Descript:** Intended for the last semester of senior year. Applies all previous courses to the design of safe, economical and environmentally benign processes.

**Proposed Crs Descript:**  Intended for the senior year. Applies all previous courses to the design of safe, economical and environmentally benign processes.

**Current prereqs:**  COM-2, C or better in CHE 4070

**Proposed prereqs:** COM-2, concurrent enrollment in CHE 4070

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** This is one of three related CARF's intended to reduce the current three semester Process Design Sequence (CHE 3070 Process Simulation and Economics, CHE 4070 Process Design I, CHE 4080 Process Design II) to a two semester design sequence (CHE 4070 and CHE 4080). Currently, student teams work on design projects the last 2/3 of CHE 4070 and continue to work on those same projects the following semester during all of CHE 4080. The time devoted to those projects will be considered to a single semester of CHE 4080. The name change reflects the restructuring of CHE 4070. In addition, the design project may be product design rather than as a two semester sequence. This will allow for more flexibility in scheduling. The lecture topics are a combination of topics currently taught in CHE 4070 and CHE 4080. The communication topics from both courses are preserved in recognition of the need for instruction in technical communication, plus the desire to maintain COM-3 certification for this course. The equiment-related lectures in CHE 4070 and CHE 4080 have been mostly removed. Students are expected to learn about the equipment related to their projects outside of class.

**Fixed/variable:** Fixed **Proposed hours:**4 **Proposed Max:** 4

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**EN**

**ME 5461**

**Computational Fluid Dynamics I**

**Current Crs Descript:** An introduction to the fundamental techniques and theory of computational fluid dynamics. Topics include discretization methods (finite difference, finite volume, and finite element methods), numerical stability, consistency and convergence, and solution techniques such as explicit, implicit and multigrid methods,. The emphasis will be on modern techniques for compressible flows.

**Proposed Crs Descript:**  An introduction to the fundamental techniques, theory, and application of computatonal fluid dynamics. Topics include the process for practical CFD problem solving using a commercial CFD software, discretization methods, numerical stability, consistency and convergence, solution techniques (explicit and implicit methods), and verification and validation procedures.

**Current prereqs:**  MATH 5310 - Computational Methods in Applied Sciences I or equivalent.

**Proposed prereqs:** graduate standing

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We want to offer this course as elective to our undergraduate students by dual listing ME5461 and ME 4461 (new course). We propose to add a Lab component to emphasize practical CFD problem solving and also change the course description to match the updated course. The prerequisites will also be changed to "graduate standing" since our BS-ME program includes a required UG course on Numerical Methods (ME 3060) that replaces the current prerequisite "MATH 5310 - Computational Methods in Applied Sciences I or equivalent". Graduate students from outside UWYO either have taken an equivalent to ME 3060 or will be required to take ME 3060 as a remedial course.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture w/Lab

**Grading system:**  A/F

proposed crosslisting: Dual list with ME 4461 and ESE 4461 (new classes)

 Modify

**EN**

**PETE 4990**

**Topics**

**Current Crs Descript:** Features topics not included in regularly offered classes.

**Current prereqs:**  Banner is showing 'PETE major' and current catalog listing contains no prerequisites

**Proposed prereqs:** Junior status or higher

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** This CARF is submitted to correct and clarigy the prerequisite listing of this course in both Banner and the UW Catalog. Currently there is a discrepancy in what is being enforced for student registration because of confusion in catalog updating in the past several years. Therefore, the two systems no longer reflect the same information and neither is correxct. This makes student registration difficult and requires overrides where there should not be a need. This course number is for our undergraduate "Topics" course and should be available for students in the upper division, as well graduate students. No syllabus submission required.

**Fixed/variable:** Variable **Proposed Max:** 6

**activity type:** Lecture w/Lab

 Modify

**ENR**

**ERS 4135**

**Advanced Oil and Gas Law**

**Proposed Course Title: Advanced Energy Law**

**Current Crs Descript:** Covers oil, gas financing arrangements including farmout, JOA and production sharing agreeements, conversation and oil/gas commission practice, drilling/service agreements, downstream marketing and purchase agreements, purchase/sale of petroleum properties, and oil/gas development on federal/indian lands. Includes basic introduction to taxation of mineral interests including depreciation, intangible drilling costs, and depletino.

**Proposed Crs Descript:**  Covers oil, gas and other energy development and financing arrangements including assignments, leases , farmouts, joint operating agreements, purchase and sale agreements, service agreements and marketing agreements. Covers oil, gas and other energy development regulation, including, oil and gas conservation commission and state and federal environmental regulation. Introduces other forms of energy development, including, but not limited to, renewables, nuclear, CCUS, hydrogen, and the various agreement and regulatory nuances of such energy development. Covers ethical issues that may arise in energy development.

**Current prereqs:**  ERS 4130

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** With the changing energy landscape and with the increased and with the increased attention and development of renewables, carbon capture and storage, hydrogen, nuclear and other forms of energy development, this class is being modified to incorporate additional forms of energy development in addition to oil and gas.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**USP:** COM 3

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**ENR**

**ERS 2010**

**Intro to Land Management**

**Current Crs Descript:** Provides an introduction to land management in the petroleum industry. Covers the knowledge and skills needed by land professionals including survey systems, land descriptions, mineral ownership, title examination, leases, surface use agreements, and contracts frequently used in the industry.

**Proposed Crs Descript:**  Provides an introduction to lang management in the various energy industries. Covers the knowledge and skills needed by land professionals including survey systems, land descriptions, mineral ownership, title examinatino, leases, surface use agreements, and contracts frequently used in the industry. In addition, provides an overview of ethical issues that arise and professional conduct expected in the industry.

**Proposed Term:** Fall 2022

**Rationale:**

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HP**

**HP 1020**

**Honors Colloquium I**

**Current Crs Descript:** Composition course. Provides innovative writing instruction to honors students while introducing works and history of Western culture. Particularly emphasizes analytical reading and writing.

**Proposed Crs Descript:**  Honors Colloquium I is the first course in a two-semester sequence introducing students to the Honors College and to interdisciplinary modes of inquiry and expression through intensive analystical reading and writing, lectures, Scholars Sessions, and experiential learning.

**Proposed Term:** Fall 2022

**Rationale:** Honors Colloquium I has undergone significant revision and restructuring. The course description needs to reflect accurately the updated content.

**Fixed/variable:** Fixed **Proposed Max:** 3

**Restrictions:** Honors College

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HP**

**HP 2020**

**Honors Colloquium II**

**Current Crs Descript:** Composition course. Provides innovative writing instruction to honors students while introducing works and history of Western culture. Particularly emphasizes analytical reading and writing.

**Proposed Crs Descript:**  Honors Colloquium II is the second course in a two-semester sequence introducing students to the Honors College and to interdisciplinary modes of inquiry and expression through intensive analystical reading and writing, lectures, Scholars Sessions, and expe

**Proposed prereqs:** Honors Colloquium II is the second course in a two-semester sequence introducing students to the Honors College and to interdisciplinary modes of inquiry and expression through intensive analystical reading and writing, lectures, Scholars Sessions, and ex

**Proposed Term:** Fall 2022

**Rationale:** Honors Colloquium II has undergone significant revision and restructuring. The course description needs to reflect accurately the updated content.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Honors College

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HS**

**KIN 3024**

**KIN 3010 is a required course for Kinesiology & Health majors. A prerequisite for this course is KIN 3020, and our students have found it confusing that they need to take KIN 3020 before the lower-numbered 3010 course. For this reason, we request to chang**

**Proposed Term:** Fall 2022

**Rationale:**

 Modify

**HS**

**KIN 2003**

**Move Core IV: Ed Games/Gym**

**Proposed Course Title: Move Core IV: Adv. & Otdr. Ed.**

**Current Crs Descript:** To provide pre-service teachers (PTs) with the skills and knowledge necessary to teach educational games and gymnastics to public school students. Prerequisites: sophomore standing.

**Proposed Crs Descript:**  Movement Core IV: Adventure and Outdoor Education - To provide prospective pre-service physical education teachers (PTs) with the skills and knowledge necessary to teach adventure and outdoor education curricula to K-12 learners.

**Enforce in Banner?:**  N

**Proposed Term:** Fall 2022

**Rationale:** The PETE (Physical Education Teacher Education) Department offers 5 Movement Core courses. These 5 courses represent the different content that should be taught in K-12 physical education. Our department is re-organizing the content addressed and taught within our five Movement Core courses. We are re-assigning the content in the current version of this course to another "Movement Core" to provide us the ability to address new content across the 5 courses. Therefore, we are looking to change the course title and description of KIN 2003.

**Fixed/variable:** Fixed **Proposed hours:**2 **Proposed Max:** 2

**Restrictions:** Sophomore standing

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HS**

**KIN 2004**

**Move Core V**

**Proposed Course Title: Move Core V: FMS & Ind. Act.**

**Current Crs Descript:** Designed for prospective physical education teachers K-12. Fundamental motor skills, dance, and creative movement and the associated teaching behaviors needed to teach this content to K-12 learners in the focus of this course. Prerequisites: Sophomore standing.

**Proposed Crs Descript:**  Movement Core V: Fundamental Movement Skills, Gymnastics, Dance, and Swimming - To provide prospective pre-service physical education teachers (PTs) with the skills and knowledge necessary to teach fundamental motor skills, gymnastics, dance, and swimming to K-12 learners.

**Proposed Term:** Fall 2022

**Rationale:** The PETE (Physical Education Teacher Education) Department offers 5 Movement Core courses. These 5 courses represent the different content that should be taught in K-12 physical education. Our department is re-organizing the content addressed and taught within our five Movement Core courses. We are adding content from another Movement Core course to provide us the ability to address new content across the 5 courses. Therefore, we are looking to change the course title and description of KIN 2004.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Sophomore standing

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HS**

**NURS 5473**

**Advancing Healthcare Transform**

**Current Crs Descript:** Emphasis on academic/practice partnerships as avenues for addressing population health and related workforce development.

**Current prereqs:**  Admission to the NURS MS program, NURS 5405, NURS 5410

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2024

**Rationale:** The Master's of Nursing program is making a curriculum change to better meet our accrediting body's essential guidelines. As a result this current 3 credit course NURS 5473 Advancing Healthcare Transformation through Academic-Practice Partnerships will be revised to a 2 credit course beginning the Fall of 2024 to accomodate the addition of a 1 credit interprofessional seminar course.

**Fixed/variable:** Fixed **Proposed hours:**2 **Proposed Max:** 2

**Grading system:**  A/F

 Modify

**HS**

**NURS 3970**

**Nursing Externship**

**Current Crs Descript:** Allows students to obtain college credit for nursing experience gained in an approved setting. Increases application of nursing theory, knowledge of health care agency, interpersonal working relationships, technical skills and organization of time in providing nursing care.

**Current prereqs:**  NURS 3840, 3842, 3844, and 3875

**Proposed prereqs:** Junior standing in nursing and consent of instructor

**Enforce in Banner?:**  Y

**Proposed Term:** Summer 2022

**Rationale:** The School of Nursing faculty were tasked with evaluating the undergraduate curriculum to ensure that all programs are aligned with the new AACN essentials. The current course prerequisites reflect courses from a curriculum that has been discontinued. The credit hours are being changed from fixed three credits to variable credit with maximum of six credits to accomodate various experiences.

**Fixed/variable:** Variable **Proposed hours:**0 **Proposed Max:** 6

**Restrictions:** Department approval

**activity type:** Practicum

**Grading system:**  S/U

 Modify

**HS**

**SOWK 5200**

**Human Beh & Soc Envirionmt I**

**Current Crs Descript:** A theoretical examination of human behavior and the social environment, focusing on individuals, families and small groups in the context of human life cycle development. Emphasizes issues of human diversity and social and economic justice in the context of the environment.

**Current prereqs:**  Admission into the MSW program and either completed SOWK 5100 or taken concurrently.

**Proposed prereqs:** SOWK 5100 and admission into the MSW program.

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** NOTE: The actual title of this course is "Human Behavior and the Social Environment I", as already listed in the catalog . The 30-character limit reads weird above. Prerequisite modification: This is a catalog change that is catching up to the Banner prerequisite. Since SOWK 5100 is only taught in the summer, then it can never be taken concurrently with SOWK 5200, which is a fall-only course for our standard MSW students.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** MSW

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HS**

**SOWK 4850**

**Social Policy**

**Current Crs Descript:** Examines human rights, social welfare policy, and social, political, and economic justice, as well as systems that oppress and create injustice, both in the US and internationally. A focus of the course will be the analysis of social welfare policy as it affects social justice issues.

**Current prereqs:**  SOWK 4060, ECON 1010, and admitted social work major status.

**Proposed prereqs:** SOWK 4060 and admitted social work major status

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** Prerequisite: This change (removing ECON 1010) is taking place, because it is redundant. One cannot be an admitted social work major without having demonstrated to the department that they have credit in ECON 1010. For some reason inexplicable to us, this has created some challenges with some students getting into this course, so we are removing the redundancy. Restriction clarification: We are requesting a restriction to include only the SOWK major (i.e. those admitted to the BSW program.)

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Include: BSW-SOWK major, Exclude: Freshman & Sophomore class standings

**activity type:** Lecture

**Grading system:**  A/F

 Modify

**HS**

**SOWK 4083**

**Social Work and Health Care**

**Current Crs Descript:** Identifies and addresses social work issues related to health, such as medical social work, public heatlh, and health promotion. Dual listed with SOWK 5083

**Proposed Crs Descript:**  Identifies and addresses social work issues related to health, such as medical social work, public heatlh, and health promotion.

**Current prereqs:**  SOWK 3630 and Admitted Major status; a WB or COM2 course and junior standing for non-social work majors

**Proposed prereqs:** Any admitted BSW/MSW student; OR permission of instructor, junior standing, and completion of a USP-COM2 course. Priority given to admitted social work students.

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** Course description change: We are removing the mention of the cross-listing with SOWK 5083, since SOWK 5083 has previously been removed from the catalog. Prerequisite change: We are inserting the word "or" and updating prerequisite language for non-social work majors for the sake of clarity. NOTE: Registration override will be required for instructor permission. We have added a restriction to ensure this is the case.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** BSW admitted student; MSW admitted student

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: None

 Modify

**HS**

**SOWK 4560**

**Social Work Research**

**Current Crs Descript:** Introduces social work research and practice evaluation. Prepares students to use research in practice.

**Current prereqs:**  STAT 2050 or 2070 with a grade of C or better and admitted social work major status.

**Proposed prereqs:** Admitted social work major status.

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** Prerequisite: This change (removing STAT 2050/2070) is taking place, because it is redundant. One cannot be an admitted social work major without having demonstrated to the department that they have credit in statistics. For some reason inexplicable to us, this has created some challenges with some students getting into this course, so we are removing the redundancy.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Include: SOWK students (= admitted majors), Exclude: Freshman & Sophomore class standing

**activity type:** Lecture

**Grading system:**  A/F

**Part II – Discontinued classes only**

 Discontinue

**AS**

**ENGL 4990**

**Senior Seminar in English**

**Proposed Term:** ???

**Rationale:** We effectively moved this theory course to the 3000 level so students have more opportunities to apply the methodologies they learn in the class in their other senior-level courses. The class is now our 3000/3010. We created a new course, ENGL 4999, to serve as our capstone seminar in the major. We would like to take 4990 off the books so as not to confuse students when they read the catalog. 4999 is now our COM3.

 Discontinue

**AS**

**SOC 3180**

**Sociological Research Methods**

**Proposed Term:** Fall 2022

**Rationale:** As part of the recent merger between Sociology and Criminal Justice, we have been exploring ways to merge courses that can increase efficiency and cover the teaching needs of both progrrams. Since SOC 3180 and CRMJ 2685 cover very similar content, it will be beneficial for both programs to cobmine the two separate existing research methods courses into one reserach methods for both programs. This course will be dropped and replaced by a cross-listed section of research methods for both criminal justice and sociology majors. Current prerequisites for this course include SOC 1000, STAT 2050, or STAT 2070, or SOC 2070.

 Discontinue

**CB**

**MGT 4550**

**Family Business & Corp. Vent.**

**Proposed Term:** Fall 2022

**Rationale:** Cleaning up the catalog. This course will not be offered again in the future because it does not align with current department curriculum.

 Discontinue

**CB**

**MGT 3460**

**International Management**

**Proposed Term:** Fall 2022

**Rationale:** Cleaning up the catalog. This course will not be offered again in the future because it does not align with current department curriculum.

 Discontinue

**CB**

**MGT 4455**

**Systems Analysis and Design**

**Proposed Term:** Fall 2022

**Rationale:** Cleaning up the catalog. This course will not be offered again in the future because it does not align with current department curriculum.

 Discontinue

**CB**

**MGT 4560**

**Entr. Acct. & Finance**

**Proposed Term:** Fall 2022

**Rationale:** Cleaning up the catalog. This course will not be offered again in the future because it does not align with current department curriculum.

 Discontinue

**CB**

**MKT 4600**

**Campus Sustainability**

**Proposed Term:** Fall 2022

**Rationale:** Removing a course at the undergraduate and graduate level that will no longer be taught by the department. This course in Haub (ENR 4600/5400) will remain on the books, but we are removing the MKT sections.

 Discontinue

**CB**

**IMGT 4050**

**Business Analytics**

**Proposed Term:** Fall 2022

**Rationale:** There exists another course with the same title, with the different course number, on the catalog.

 Discontinue

**CB**

**MKT 5600**

**Campus Sustainability**

**Proposed Term:** Fall 2022

**Rationale:** Removing course at the undergraduate and graduate level that will no longer be taught by the department. The course in Haub (ENR 4600/5600) will remain on the books, but we are removing the MKT sections.

 Discontinue

**EN**

**ARE/CE 2000**

**VISTA Studio II**

**Proposed Term:** Fall 2022

**Rationale:** The department voted to discontinue VISTA Studio II in order to address teaching loads, curriculum efficiency, and time to graduation for students. The critical content covered in VISTA Studio II (engineering economics and ethics) will be taught in a new course on Professional Practice. VISTA Studio II is a prerequisite for VISTA Studio III, which is also being discontinued.

 Discontinue

**EN**

**ARE/CE 3000**

**VISTA Studio III**

**Proposed Term:** Fall 2022

**Rationale:** The department voted to discontinue VISTA Studio III in order to address teaching loads, curriculum efficiency, and time to graduation for students. The critical content covered in VISTA Studio III (project management) will be taught in a new course on Professional Practice. Vista Studio III is a prerequisite for CE 4010 Civil Engineering Design. CE 4010 is a corequisite with CE 4900 (Capstone), and the new Professional Practice course will be a prerequisite for CE 4900, which results in the required prerequisite content being delivered before CE 4010.

 Discontinue

**EN**

**CHE 3070**

**Process Simulation & Economics**

**Proposed Term:** Fall 2022

**Rationale:** This is one of three related CARF's intended to reduce the current three semester Process Design Sequence (CHE 3070 Process Simulation and Economics, CHE 4070 Process Design I, CHE 4080 Process Design II) to a two semester design sequence (CHE 4070 and CHE 4080). The motiviation is to reduce the number of required courses taught during Spring Semester of the junior year so that students may take an off-campus internship during that semester. Internships enhance the students' education and often lead to employment offers post graduation. The current content of CHE 3070 will be moved to a re-structured CHE 4070. CHE 3070 is currently a prerequisite for CHE 4070, and taht prerequisite will be removed.

 Discontinue

**ENR**

**ERS 2000**

**Ethics and Leadership**

**Current prereqs:**  USP WA/COM1

**Proposed Term:** Fall 2022

**Rationale:** This course has not been offered for several years due to lack of available faculty to teach. We are seeking to discontinue this course and to incorporate ethics into ERS 2010 and ERS 4135. As part of this change, we are requesting that ERS 2010 be allocated an additional credit hour to 3 credit hours from 2 credit hours. ERS 2000 will be discontinued.

 Discontinue

**HS**

**NURS 3250**

**Health Psychology**

**Proposed Term:** Fall 2023

**Rationale:** This course is no longer required in the BSN program of study for quite some time, and it not a prerequisite for any NURS coures. It is currently cross listed with PSYC 3250. The Nursing cross listing will be droppe, but the psychology listing will remain.

 Discontinue

**HS**

**NURS 2240**

**Medical Terminology**

**Proposed Term:** Fall 2023

**Rationale:** This course has not been required in the BSN program of study for quite some time, and is not a prerequisite for any NURS courses.

 Discontinue

**HS**

**SOWK 5000**

**Topics: Social Work**

**Proposed Term:** Fall 2022

**Rationale:** The Division of Social Work has not taught this course for a decade or more, and we do not intend to teach it again.

**Part III – New classes only**

 Add

**AS**

**GWST 4630**

**Gender & Politics**

**Proposed Crs Descript:**  Using theoretical perspectives of pluralism, elitism, and intersectionality, this course examines how sex and gender operate in U.S. political processes, including elections, parties, interest groups, and social movements. Specific focus will be on women in politivs and analyses of power dunamics in shaping marginalized identities; sex/gender, race and ethnicity, sexual orientation, class and ability.

**Proposed prereqs:** GWST/ENGL 1080, GWST 2000, or POLS 1000; at least 9 hours combined credit hours in POLS or GWST, and junior standing.

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** This course has been offered for over two yearas under a Special Topics course number. Now that it is in the regular rotation of Gender & Women's Studies courses, we want to formally add it to our state. The Gender & Womens Studies program also changed the prefix of all of our courses from WMST to GWST, so the prefix requested is in line with that programmatic change.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture w/Discussion

**Grading system:**  A/F

proposed crosslisting: POLS 4630

 Add

**AS**

**SOC 2685**

**Proposed Course Title: Research Methods**

**Proposed Crs Descript:**  Introduces students to fundamental issues associated with the application of scientific methods to social science problems. Students examine research designs involving ethnographic, archival, historical, and quantitative methods and how they relate to social science issues.

**Proposed prereqs:** CRMJ 1001 OR SOC 1000

**Enforce in Banner?:**  Y

**Proposed Term:** ???

**Rationale:** As part of the recent merger between Sociology and Criminal Justice, we have been exploring ways to merge courses that can increase efficiency and cover the teaching needs of both programs. Since SOC 3180 and CJ 2685 cover very similar content, it will be beneficial for both programs to combine the two separate existing research methods courses into one research methods for both programs. This we need to create an SOC 2685 to cross-list with a modified CJ 2685.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Criminal Justice or Sociology majors and minors

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: CRMJ 2685

 Add

**ED**

**LDTE 5730**

**Proposed Course Title: Game Design & Development**

**Proposed Crs Descript:**  Develop a practical foundation in game design with a focus on concept development, design, deconstruction, and prototyping. Using game design theory, analysis, physical prototypeing, playtesting, and iteration studetns translate game ideas into gameplay. Gamification and using game design as

**Enforce in Banner?:**  N

**Proposed Term:** Fall 2022

**Rationale:** This course is being created as part of a redesign of the doctoral programs offered in the Learning, Design, & Technology (LDT) program in the School of Counseling, Leadership, Advocacy & Design within the College of Education. The redesign of the doctoral programsreplaces the existing programming in Instructional Technology currently in LDT. ITEC courses will be phased out as LDTE courses become available. The use of prefix LDTE reflects the program's existing name of Learning, Design, and Technology and creates alighnment between the program and the prefix. This prefix is currently active in the Banner system.

 Add

**ED**

**LDTE 5760**

**Proposed Course Title: Instructional Design Applications**

**Proposed Crs Descript:**  Students will engage in the application of instructional design to real-world, team-based projects. Students will be assigned a series of projects, which they will work on in teams to analyze, develop, implement, and evaluate instructional materials.

**Enforce in Banner?:**  N

**Proposed Term:** Fall 2022

**Rationale:** This course is being created as part of a redesign of the doctoral programs offered in the Learning, Design, & Technology (LDT) program in the School of Counseling, Leadership, Advocacy & Design within the College of Education. The redesign of the doctoraral programs replaces the existing programming in Instructional Technology currently in LDR. ITEX courses will be phased out as LDTE courses become available. The use of the prefix LDTE refelcts the program and the prefix. This prefix is currently active in the Banner system.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**Restrictions:** Graduate student status

**activity type:** Lecture

**Grading system:**  A/F

 Add

**EN**

**ATSC 4009**

**Objective Data Analysis**

**Proposed Crs Descript:**  Techniques for extracting information from data as used in the physical science literature such as compositing, time series analysis, singular value decomposition, principle component analysis, and filtering. More recent techniques from machine learning such as artficial neural networks, self-organizing maps, and traceable Al will be presented.

**Proposed prereqs:** MATH 2210 and MATH 2250 OR PERMISSION OF INSTRUCTOR

**Proposed Term:** Fall 2022

**Rationale:** The course fills a useful function for interdisciplenary data analysis. There is substantial overlap in content with commercial offerings such as: WeCloudData Data Science Boot Camp (cost ~$12,000). Thus, offering this at a 4000 level will make it more likely that undergraduate students can graduate with an essential skill and not go outside the university at significant personal expense. This would add a 4000 level section for the existing 5000 level data analysis class.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture

**Grading system:**  A/F

proposed crosslisting: ATSC 5009

 Add

**EN**

**ESE 4461**

**Computational Fluid Dynamics I**

**Proposed Crs Descript:**  An introduction to the fundamental techniques, theory, and application of computatonal fluid dynamics. Topics include the process for practical CFD problem solving using a commercial CFD software, discretization methods, numerical stability, consistency and convregence, solution techniques (explicit and implicit methods), and verification and validation procedures.

**Proposed prereqs:** ME Success Curriculum; ME/ESE 3060 - Numerical Methods; ME/ESE 3360 - Transport Phenomena

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We want to offer this course as elective to our undergraduate students. CFD skills are becoming increasingly important for students joining the workforce. CFD-I will be a continuation of the courses we require in the ME/ESE programs, i.e. ME/ESE 3060-Numerical by ME-5462 CFD II. The aims in CFD-I are to teach the relevant steps for a CFD analysis of practical problems using a commercial CFD software and to provide a deeper understanding of the physical models, governing equations, and numberical methods used in CFD. The undergraduate students will use MATLAB to program some of the numerical methods for one- and two- dimensional 'model' problems. The major additional requirement for gradauate students will be programming skills for implementing the numerical techniques in two dimensions for a simplified fluid flow solver. The latter is important for the follow-on graduate course ME-5462 CFD II where the focus is on programming full two- and three-dimentional flow solvers as is often required for the graduate research projects.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture w/Lab

**Grading system:**  A/F

proposed crosslisting: Cross-list with ME 4461 (new course); dual list with ME 5461

 Add

**EN**

**ME 4461**

**Proposed Course Title: Computational Fluid Dynamics I**

**Proposed Crs Descript:**  An introduction to the fundamental techniques, theory, and application of computatonal fluid dynamics. Topics include the process for practical CFD problem solving using a commercial CFD software, discretization methods, numerical stability, consistency and convregence, solution techniques (explicit and implicit methods), and verification and validation procedures.

**Proposed prereqs:** ME Success Curriculum; ME/ESE 3060 - Numerical Methods; ME/ESE 3360 - Transport Phenomena

**Enforce in Banner?:**  Y

**Proposed Term:** Fall 2022

**Rationale:** We want to offer this course as elective to our undergraduate students. CFD skills are becoming increasingly important for students joining the workforce. CFD-I will be a continuation of the courses we require in the ME/ESE programs, i.e. ME/ESE 3060-Numerical by ME-5462 CFD II. The aims in CFD-I are to teach the relevant steps for a CFD analysis of practical problems using a commercial CFD software and to provide a deeper understanding of the physical models, governing equations, and numberical methods used in CFD. The undergraduate students will use MATLAB to program some of the numerical methods for one- and two- dimensional 'model' problems. The major additional requirement for gradauate students will be programming skills for implementing the numerical techniques in two dimensions for a simplified fluid flow solver. The latter is important for the follow-on graduate course ME-5462 CFD II where the focus is on programming full two- and three-dimentional flow solvers as is often required for the graduate research projects.

**Fixed/variable:** Fixed **Proposed hours:**3 **Proposed Max:** 3

**activity type:** Lecture w/Lab

**Grading system:**  A/F

proposed crosslisting: Cross-list with ME 4461 (new course); dual list with ME 5461

 Add

**HS**

**KIN 5588**

**Proposed Course Title: K&H Intellectual Seminar**

**Proposed Crs Descript:**  The Division of Kinesiology and Health Intellectual Community Seminar highly values interdisciplinary knowledge and professional development. The seminar is primarily designed to promote these values among graduate students and faculty members.

**Proposed prereqs:** Graduate Standing in the Division of Kinesiology & Heatlh

**Enforce in Banner?:**  N

**Proposed Term:** Fall 2022

**Rationale:** The Division of Kinesioloy & Health is formalizing its regular graduate seminar to increase participation among graduate students. We propose a 0-credit semianr course, which will be required of graduate students as per the syllabus.

**Fixed/variable:** Fixed **Proposed hours:**0 **Proposed Max:** 0

**activity type:** Seminar

**Grading system:**  S/U