

SUBCOMMITTEE A – AGENDA

**Via Teams**  
September 12, 2024  
1:30 p.m.

**PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES**

**COLLEGE OF HUMAN MEDICINE**

1. Request to change the requirements for the **Professional Program in Human Medicine** leading to the **Doctor of Medicine (M.D.)** degree. The University Committee on Graduate Studies (UCGS) will consider this request at its September 16, 2024 meeting.

- a. Under the heading ***Oral Maxillofacial Surgery Pathway*** replace the last sentence with the following:

These students will begin the Middle Clinical Experience upon matriculation, and will complete the remainder of the M.D. program credits through the MD/OMFS residency track program, receiving a waiver for 41 credits. OMFS students must complete all listed Requirements for the Doctor of Medicine degree except for the differences outlined here:

- Exempted from taking HM 552 and HM 553.
- Instead of HM 554, must complete HM 544 Med School III, 16 credits.
- Instead of HM 556, must complete HM 549 Med School V, 10 credits.
- Instead of SUR 642, must complete SUR 635 Perioperative Trauma Medicine, 6 credits.
- From section 2., Critical Care Selectives, OMFS students must complete MED 643 Medicine Critical Care, 6 credits.
- From section 3., Primary Care Selectives, the requirement is 3 credits rather than 6 credits.

Effective Spring 2025.

## **PART II - NEW COURSES AND CHANGES**

### **COLLEGE OF AGRICULTURE AND NATURAL RESOURCES**

AT 195	Research and Practice in Agricultural Technologies Fall of every year. Spring of every year. Summer of every year. 3(1-4) P: (AT 100 or concurrently) or AT 214 or ANS 110 or (FSC 111 or concurrently) or (FOR 115 or concurrently) or HRT 207 or AT 102 or (FOR 112 or concurrently) or approval of department R: Open to agricultural technology students or approval of department.
NEW	Scope, impacts, and challenges of technologies transforming modern agriculture Field trips required. Effective Fall Semester 2024
ENT 404	Fundamentals of Entomology Fall of every year. 4(2-4) P: BS 162 or PLB 105 or LB 144 R: <u>Open to juniors or seniors or graduate students in the College of Agriculture and Natural Resources or approval of department.</u> Insect classification, identification, diversity, physiology and ecology. Importance of insects to humans and the environment. Insect collection required. Effective Fall Semester 2024
FW 867	Water: A Global Perspective Fall of every year. 1(2-0) RB: Knowledge of water science or related field
NEW	Breadth, integration, and multidisciplinary nature of research, management, exploitation, and conservation of water resources. Convergent and interdisciplinary approaches to water research. Effective Fall Semester 2024
FSC 480	Fundamentals of Chemistry and Microbiology for Distillers Summer of every year. 3(3-0) R: Approval of department.
NEW	Fundamentals of chemistry including chemical and microbial concepts related to the production of distilled spirits. Effective Summer Semester 2024
FSC 855	USDA-FSIS Food Law Fall of every year. 3(3-0) RB: FSC 811, LAW810A, or prior coursework or professional experience in food safety, food law, or food science
NEW	USDA Food Safety Inspection Service law on the regulation and inspection of meat, poultry, and egg products. Effective Fall Semester 2024
FOR 215	Introduction to Wildland Fire Spring of every year. 2(2-0) R: <del>Open to undergraduate students in the Department of Forestry or approval of department.</del> Fundamental processes of wildland fire behavior and management consistent with the National Wildfire Coordinating Group (NWCG) curriculum. Field trips required. SA: FOR 412 Effective Spring Semester 2025
FOR 340	Forest Ecology Fall of every year. 3(3-0) P: <del>((CSS 210 or GEO 206) and completion of Tier I writing requirement) and (PLB 105 or BS 162 or LB 144) P: ((CSS 210 or GEO 206) and completion of Tier I writing requirement) and (PLB 105 or BS 162 or LB 144 or FOR 175)</del> RB: IBIO 355 Ecological interactions crucial to the sustainable management of forest ecosystems. Plant resources, species interactions, succession, biodiversity, productivity, nutrient and carbon cycling, ecosystem structure and function, exotic species, global environmental change. SA: FOR 404 Effective Fall Semester 2025

PART II - NEW COURSES AND CHANGES – continued - 3  
September 12, 2024

- FOR 340L Forest Ecology Laboratory  
Fall of every year. 2(0-6) P: ~~((CSS 210) and completion of Tier I writing requirement) and (FOR 340 or concurrently) and (PLB 105 or BS 162 or LB 144)~~ P: FOR 340 or concurrently RB: IBIO 355  
Field studies and data analysis of ecological processes central to the sustainable management of forest ecosystems. Field exercises cover primary production, community structure, soil resources, biodiversity, succession, nutrient cycling, critiques of primary literature. Pre-semester field camp required.  
SA: FOR 404L  
Effective Fall Semester 2025
- FOR 372 Ecological Monitoring and Data Analysis  
Spring of every year. 3(2-2) Interdepartmental with Geography P: ~~((MTH 124 or MTH 132) and completion of Tier I writing requirement) and (STT 201 or STT 224 or STT 231 or STT 421 or GEO 363)~~ P: (MTH 103 or concurrently) and FOR 128  
Design of ecological monitoring systems and analysis of resulting ecological data sets. Monitoring system design, model specification and implementation, and computational considerations from both a design- and model-based perspective. Hands-on introduction to statistical software.  
SA: FOR 472  
Effective Spring Semester 2025
- FOR 413 Wildland Fire Ecology and Management  
Fall of every year. 3(3-0) P: ~~(FOR 340 or concurrently) or (IBIO 355 or concurrently)~~ P: {(FOR 340 or concurrently) or (IBIO 355 or concurrently)} and FOR 215 RB: FOR 204  
Role of fire in regulating forest ecosystem distribution, composition, structure, and function. Field trips required.  
Effective Fall Semester 2024
- FOR 419 Applications of Geographic Information Systems to Natural Resources Management  
Spring of every year. 4(2-4) ~~Interdepartmental with Biosystems Engineering, Biosystems Engineering, Biosystems Engineering, Fisheries and Wildlife, Geography~~ Interdepartmental with Fisheries and Wildlife, Geography P: FOR 128 or FW 293 RB: GEO 221  
Application of geographic information systems, remote sensing, and global positioning systems to integrated planning and management for fish, wildlife, and related resources.  
Effective Spring Semester 2025
- FOR 438 Forest Resource Economics  
Fall of every year. 3(2-2) P: ~~((EC 201) and completion of Tier I writing requirement) and (MTH 124 or MTH 132 or LB 118) and (STT 201 or STT 224 or STT 231 or STT 421)~~ P: ((EC 201) and completion of Tier I writing requirement) and (STT 201 or STT 224 or STT 231 or STT 421) R: Not open to freshmen or sophomores.  
Basic economic and social science principles and techniques that govern human consumption and production of forest resources, including investment and benefit-cost, and regional impact analysis, and social impact assessment.  
SA: FOR 464, FOR 462  
Effective Fall Semester 2024
- HRT 222 Houseplants and Interiorscapes  
Spring of odd years. 2(2-0)  
NEW Concepts and practices of houseplant production and the design, management, and maintenance of interiorscapes.  
Effective Spring Semester 2025
- HRT 222L Houseplants and Interiorscapes Laboratory  
Spring of odd years. 1(0-2) P: PLB 105 or HRT 109 or  
NEW Houseplant identification, propagation techniques, and the impact of the greenhouse environment on the scheduling and quality of finished plant material. Field trip required.  
Effective Spring Semester 2025

- PKG 102      Introductory Packaging Seminar  
Fall of every year. Spring of every year. 2(2-0) P: PKG 101 or concurrently ~~R: Open to undergraduate students in the Packaging Major.~~ R: Open to undergraduate students in the School of Packaging or approval of department.  
Packaging career choices in science, management and engineering. Creativity in packaging designs and career decisions.  
Effective Fall Semester 2024
- PKG 221      Packaging with Glass and Metal  
Fall of every year. Spring of every year. 2(2-0) P: (CEM 141 or CEM 151 or LB 171) and (PHY 231 or PHY 231C or PHY 183 or PHY 183B or LB 273) and (PKG 102 or concurrently) ~~R: Open to sophomores or juniors or seniors in the Packaging Major.~~ R: Open to undergraduate students in the School of Packaging or approval of department.  
Physical and chemical properties of glass and metals and their applications to packaging.  
SA: PKG 320, PKG 325  
Effective Fall Semester 2024
- PKG 315      Packaging Decision Systems  
Fall of every year. Spring of every year. 3(2-2) P: (MTH 132 or MTH 152H or LB 118) and (PKG 221 or concurrently) ~~R: Open to sophomores or juniors or seniors in the School of Packaging.~~ R: Open to undergraduate students in the School of Packaging or approval of department.  
Communication, analysis, and problem solving in the management, specification, production, sustainability, economics and testing of packaging.  
SA: PKG 415  
Effective Fall Semester 2024
- PKG 322      Packaging with Paper and Paperboard  
Fall of every year. Spring of every year. 4(3-2) P: ((PKG 221 or concurrently) and PKG 101) and (MTH 133 or MTH 153H or LB 119) and (CEM 143 or CEM 251 or CEM 351) and (STT 200 or STT 201 or STT 315 or STT 351) ~~R: Open to sophomores or juniors or seniors or graduate students in the School of Packaging.~~ R: Open to undergraduate students in the School of Packaging or approval of department.  
Physical and chemical properties, manufacture, conversion, and use of wood, paper, paperboard, and related components in packaging. Design, use, and evaluation of packages.  
SA: PKG 325  
Effective Fall Semester 2024
- PKG 323      Packaging with Plastics  
Fall of every year. Spring of every year. 4(3-2) P: ((PKG 221 or concurrently) and PKG 101) and (MTH 133 or MTH 153H or LB 119) and (STT 200 or STT 201 or STT 315 or STT 351) and (CEM 143 or CEM 251 or CEM 351) ~~R: Open to sophomores or juniors or seniors or graduate students in the School of Packaging.~~ R: Open to undergraduate students in the School of Packaging or approval of department.  
Physical and chemical properties of plastics and their relationship to selection, design, manufacture, performance, and evaluation of packages.  
SA: PKG 320  
Effective Fall Semester 2024
- PKG 410      Distribution Packaging Dynamics  
Fall of every year. Spring of every year. 4(3-2) P: PKG 322 and PKG 323 ~~R: Open to sophomores or juniors or seniors or graduate students in the School of Packaging.~~ R: Open to undergraduate students in the School of Packaging or approval of department. Not open to students with credit in PKG 803.  
Identification and measurement of hazards in physical distribution. Methods of protection against climate, shock, vibration, and compression.  
SA: PKG 310  
Effective Fall Semester 2024

PKG 411	<p>Package Development Technology Fall of every year. Spring of every year. 3(2-2) <del>P: (PKG 322 and PKG 323) and ((PKG 315 or concurrently) or EGR 102)</del> P: (PKG 322 or concurrently) and (PKG 323 or concurrently) R: <u>Open to undergraduate students in the School of Packaging and open to graduate students in the School of Packaging or approval of department.</u> Development of consumer packaging utilizing current technology tools. Integration of package structure, graphics and performance. Examination and application of current practices in packaging development. Effective Fall Semester 2021</p>
PKG 430	<p>Packaging for Fast-Moving Consumer Goods Fall of every year. 3(3-0) P: PKG 315 and PKG 322 and PKG 323 <del>R: Open to juniors or seniors or graduate students in the School of Packaging.</del> R: <u>Open to undergraduate students in the School of Packaging and open to graduate students in the School of Packaging or approval of department.</u> Package graphics and structure in fast-moving consumer goods packaging and marketing. Consumer experience, printing and decoration. Preparation, production, and economics of packaging graphics. SA: PKG 330 Effective Spring Semester 2024</p>
PKG 432	<p>Packaging Processes Fall of every year. Spring of every year. 4(3-2) P: (PKG 322 and PKG 323) and (PHY 232 or PHY 232C or PHY 184 or PHY 184B or PHY 294H or LB 274) <del>R: Open to sophomores or juniors or seniors or graduate students in the School of Packaging.</del> R: <u>Open to undergraduate students in the School of Packaging and not open to graduate students in the School of Packaging or approval of department.</u> Integrated study of packaging and production operations, quality control, and organization and control of machines. Interrelationship of products, packaging, machinery layout and efficiency, and quality issues. Effective Fall Semester 2024</p>
PKG 441	<p>AI and Robotics in Packaging Fall of every year. Spring of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: PKG 323 and PKG 322 R: Open to undergraduate students or graduate students in the School of Packaging. Approval of department. A student may earn a maximum of 6 credits</p>
NEW	<p>Principles and use of AI and Robotics in Packaging. Effective Fall Semester 2024</p>
PKG 485	<p>Packaging Development (W) Fall of every year. Spring of every year. 4(4-0) <del>P: ((PKG 410 and PKG 432) and completion of Tier I writing) and (PKG 315 or EGR 102) and (PKG 411 or concurrently) P: ((PKG 410 and PKG 432) and completion of Tier I writing requirement) and (PKG 411 or concurrently) R: Open to seniors or graduate students in the School of Packaging.</del> R: <u>Open to seniors in the School of Packaging or approval of department.</u> Package development including selection, design and implementation of package systems for protection, distribution, merchandising, use and disposal. Effective Fall Semester 2020</p>
PKG 810	<p>Packaging Professional Seminar Fall of every year. Spring of every year. 3(3-0) R: Open to graduate students in the School of Packaging.</p>
NEW	<p>Professional skills and workplace strategies for success in a packaging career Effective Fall Semester 2025</p>

**COLLEGE OF ENGINEERING**

- ECE 810            Radio Frequency Integrated Circuits  
Fall of every year. 3(3-0) RB: Electrical and Computer Engineering and Computer Science and Engineering.
- REINSTATEMENT      Transceiver architecture designs with emphasis on hardware building blocks. Integrated radio frequency designs for various communication standards. Basic building blocks including low noise and power amplifiers, mixers, voltage control oscillators, and frequency synthesizers. Integrated circuit designs of basic building blocks.  
Effective Fall Semester 2024
- ECE 837            Computational Methods in Electromagnetics  
Spring of odd years. 3(3-0) P: ECE 835 R: Open to graduate students in the Department of Electrical and Computer Engineering and open to graduate students in the Department of Physics and Astronomy and open to graduate students in the Department of Mathematics.
- REINSTATEMENT      Numerical methods and linear spaces. Finite difference time domain methods. Yee Algorithm. Boundary truncation methods. Perfectly matched layers (PMLs). Finite element method (time and frequency). Scalar basis functions. Vector basis functions. Boundary truncation using PMLs. Integral equation methods. Surface and volume integral equations.  
Effective Fall Semester 2024
- EGR 440            Engineering Entrepreneurship Science and Engineering Entrepreneurship  
Fall of every year. 3(3-0) ~~R: Open to juniors or seniors in the College of Engineering.~~ R: Open to juniors or seniors in the College of Engineering or in the College of Natural Science.  
Technical skills to enable and engage in engineering related entrepreneurship at all levels. Discovery, evaluation, and engagement of entrepreneurial opportunities starting with technology development to solve a problem, bring about desired change that is scalable, and the application of engineering principles in business related endeavors.  
Effective Fall Semester 2025
- ME 422            Introduction to Combustion  
Fall of every year. 3(3-0) ~~P: (ME 332 or concurrently) R: Open to juniors or seniors in the Mechanical Engineering Major.~~ P: (ME 332 or concurrently) or (ME 333 or concurrently) R: Open to juniors or seniors in the Mechanical Engineering Major.  
Thermodynamics, chemistry, fluid mechanics, and heat transfer principles applied to combustion.  
Effective Spring Semester 2025
- ME 440            Aerospace Propulsion  
Fall of every year. 3(3-0) ~~P: ME 332~~ P: ME 332 or ME 333 R: Open to juniors or seniors in the Mechanical Engineering Major.  
Fundamentals of thrust and propulsion systems, including gas turbines, ramjets, rockets and electric devices. Compressible flow through nozzles and shocks. Cycle analysis of airbreathing jet propulsion and chemical rocket propulsion. Performance and design of propulsion components.  
Effective Spring Semester 2025
- ME 441            Aerodynamics and Aircraft Performance  
Spring of every year. 3(3-0) ~~P: ME 332~~ P: ME 332 or ME 333 R: Open to juniors or seniors in the Mechanical Engineering Major.  
Solutions to inviscid and viscous fluid dynamical equations. Aerodynamics of airfoils, wing and fuselage. Aircraft performance parameters and basics of flight, including cruise, turning, takeoff and landing. Introduction to stability, including control surfaces, longitudinal and lateral stability and power effects.  
Effective Spring Semester 2025

ME 442 Turbomachinery  
Spring of every year. 3(3-0) ~~P: (ME 332)~~ P: ME 332 or ME 333 R: Open to juniors or seniors in the Mechanical Engineering Major.  
Applying energy, momentum, and continuity equations of thermo-fluids to turbomachinery. Blade geometry and aerodynamics. Performance and design parameters. Turbomachine design.  
Effective Spring Semester 2025

### COLLEGE OF HUMAN MEDICINE

HM 638 Lifestyle Medicine  
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P: HM 556 RB: Knowledge or experience in lifestyle medicine R: Open to graduate-professional students in the College of Human Medicine. Approval of college.

NEW Introduction to the pillars of lifestyle medicine and their application in the prevention and management of many common chronic diseases.  
Request the use of the Pass-No Grade (P-N) system.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.  
Effective Fall Semester 2024

PH 843 Public Health Research Methods  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) R: Open to graduate students in the Public Health Major or approval of department.

NEW Overview of general research methods used in public health practice: Literature Reviews, Quantitative and Qualitative Methods, Program Evaluation, and Policy Analysis.  
Effective Fall Semester 2024

### COLLEGE OF NATURAL SCIENCE

BLD 150 Introduction to Biomedical Laboratory Diagnostic Testing  
Fall of every year. Spring of every year. 1(1-0) R: Open to freshmen or sophomores in the College of Natural Science or in the Lyman Briggs College.

NEW Analysis of diagnostic testing (hematology, clinical chemistry, immunology, transfusion services, medical microbiology, molecular diagnostics) within case studies of pathological conditions to understand how diagnostic testing is employed in the clinical decision-making process.  
Request the use of the Pass-No Grade (P-N) system.  
Effective Fall Semester 2024

BLD 473L Advanced Clinical Hematology and Body Fluids Laboratory  
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: BLD 424L R: Open to students in the Biomedical Laboratory Diagnostics Program. Approval of department.  
Application and integration of theory and technical skills in hematology, hemostasis, and body fluid analysis.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 3 semesters after the end of the semester of enrollment.  
~~SA: MT 473, BLD 473~~ SA: BLD 473, MT 473  
Effective Fall Semester 2024

- CMSE 410      Bioinformatics and Computational Biology  
Spring of every year. ~~3(2-2)~~ 3(3-0) Interdepartmental with Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics, Plant Biology, Plant Biology Interdepartmental with Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology, Plant Biology, Plant Biology P: ~~{{(CMSE 201 and LB 144 and LB 145) or (CMSE 201 and BS 161 and BS 162) or (CMSE 201 and BS 181H and BS 182H)}~~ and (STT 200 or STT 201 or STT 231 or STT 421 or STT 351 or ECE 280) P: {{(CMSE 201 and LB 144 and LB 145) or (CMSE 201 and BS 161 and BS 162) or (CMSE 201 and BS 181H and BS 182H)} and (STT 200 or STT 201 or STT 231 or STT 421 or STT 351 or ECE 280 or STT 380)  
Computational approaches in modern biology with a focus on applications in genomics, systems biology, evolution, and structural biology.  
Effective Fall Semester 2025
- CMSE 411      Computational Medicine  
Fall of even years. 3(3-0) ~~Interdepartmental with Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics, Microbiology and Molecular Genetics~~ Interdepartmental with Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Biochemistry and Molecular Biology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology, Microbiology, Genetics, and Immunology P: (CMSE 201 and LB 144 and LB 145) or (CMSE 201 and BS 161 and BS 162) or (CMSE 201 and BS 181H and BS 182H)  
Computational approaches in biology with a focus on medicine.  
Effective Fall Semester 2025
- PHY 481      Electricity and Magnetism I  
Fall of every year. 3(3-0) P: MTH 234 or MTH 254H or LB 220 P: (PHY 184 or PHY 294H or LB 274) and (MTH 234 or MTH 254H or LB 220) and CMSE 201 R: Open to juniors or seniors or graduate students.  
Electrostatics, dielectrics, magnetic fields of steady state currents, Faraday law of induction.  
Effective Fall Semester 2024

### COLLEGE OF NURSING

- NUR 822      Practicum I: Primary Care for the Family  
Fall of every year. 6(0-18) P: NUR 821 R: Open to graduate students in the Master of Science in Nursing or in the Nurse Practitioner Graduate Certificate.  
Integration of assessment and applied theory in primary care management of clients across the life span. Collaborative model of primary care practice. Health promotion, health maintenance management, and risk reduction strategies for individuals within the context of family. Single acute condition focus. Problem-oriented format for organizing client data.  
Request the use of the Pass-No Grade (P-N) system.  
SA: NUR 522  
DELETE COURSE  
Effective Summer Semester 2024



- NUR 832            Practicum I: Primary Care for the Adult and Aged  
Fall of every year. 6(0-18) P: NUR 836 R: Open to graduate students in the Master of Science in Nursing or in the Nurse Practitioner Graduate Certificate.  
Integration of assessment and applied theory in clinical care management of the adult and aged. Health promotion/wellness, health maintenance/management and risk reduction strategies. Acute conditions. Interpretation and integration of various forms of patient health data. Collaborative, collegial model of practice.  
Request the use of the Pass-No Grade (P-N) system.  
DELETE COURSE  
Effective Summer Semester 2024
- NUR 862            Clinical Nurse Specialist Role Internship  
Fall of every year. 8(2-18) P: NUR 807 RB: Open only to master's students in the Clinical Nurse Specialist-Nurse Education concentration. R: Open to graduate students in the Master of Science in Nursing.  
Role development of the clinical nurse specialist as an applied nurse scientist, expert in nursing practice, and professional leader.  
DELETE COURSE  
Effective Summer Semester 2024
- NUR 867            Clinical Internship in Nursing Education  
~~Spring of every year.~~ Summer of every year. 4(1-9) P: NUR 861 RB: Open only to students in the Clinical Nurse Specialist-Nurse Education concentration. R: Open to graduate students in the Master of Science in Nursing.
- REINSTATEMENT    Application and evaluation of teaching and learning principles in a diverse health care setting.  
Effective Summer Semester 2024
- NUR 885            Anesthesia Practicum I  
Summer of every year. 1(0-7) P: NUR 879  
Design and management of the operating room. Principles and techniques of sterility, intravenous and arterial cannulation, and course of anesthesia. Basic drugs and monitors, anesthesia management plan, documentation, and ethical considerations in anesthesia practice.  
Request the use of the Pass-No Grade (P-N) system.  
DELETE COURSE  
Effective Summer Semester 2024
- NUR 964            DNP Practicum I  
Fall of every year. Spring of every year. Summer of every year. 3 credits. P: NUR 960 and NUR 961 R: Open to doctoral students in the College of Nursing.  
Provides the clinical opportunity to analyze, synthesize, and implement integrated nursing knowledge and skills in achieving patient and health system outcomes system's assessment and needs analysis within the healthcare environment.  
Request the use of the Pass-No Grade (P-N) system.  
DELETE COURSE  
Effective Summer Semester 2024

### COLLEGE OF OSTEOPATHIC MEDICINE

OST 402  
OST 450

- Introduction to Global Health  
On Demand. 3(3-0)  
Introductory topics in global health.  
Request the use of ET-Extension to postpone grading.  
The work for the course must be completed and the final grade reported within 2 semesters after the end of the semester of enrollment.  
Effective Spring Semester 2025

- OST 451      Global Health Research Methods  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to undergraduate students or approval of department.
- NEW            This course provides students with an introduction to global health research methods, concepts, and practices. Students will explore quantitative, qualitative, and mixed methods approaches, along with participatory research techniques and ethical considerations essential for conducting global health research. Through global health related case studies and practical exercises, students will learn to apply these methods to real-world health challenges, fostering skills in analysis, community engagement and effective dissemination of research findings.  
Effective Spring Semester 2025
- OST 452      Introduction to One Health  
Fall of every year. Spring of every year. Summer of every year. 3(3-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to undergraduate students or approval of department.
- NEW            This course provides an introduction to global health using the One Health approach. Students will learn about the interconnectedness of the health of people, animals and their shared environment. Such topics as microbial interactions, zoonotic diseases, food safety and security ecosystem health and biodiversity, environmental toxicology, and climate change will be covered.  
Effective Spring Semester 2025

### **COLLEGE OF VETERINARY MEDICINE**

- PHM 809      ~~Drug Discover and Medicinal Chemistry~~ Drug Discovery and Medicinal Chemistry  
~~Spring of even years. Spring of odd years. 2(2-0) Interdepartmental with Chemistry RB: BS in Biomedical science discipline (including, but not limited to chemistry, biochemistry, pharmacology, chemical engineering, molecular biology, biology, pharmacy, human biology, physiology.)~~ ~~R: Open to doctoral students in the Department of Chemistry or in the Department of Pharmacology and Toxicology or approval of department.~~ R: Open to doctoral students in the Department of Chemistry or in the Department of Biochemistry and Molecular Biology or in the Pharmacology and Toxicology Major or approval of department.  
Fundamentals of pharmaceutical drug discovery including basic chemistry, drug-design principles, high throughput screening, computational modeling, and drug metabolic pathways.  
Effective Spring Semester 2023