

SUBCOMMITTEE A – AGENDA

437 Administration Building
November 8, 2018
1:30 p.m.

PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Request to establish a **Minor in Sustainable Bioproducts Science and Technology** in the Department of Forestry. The University Committee on Undergraduate Education (UCUE) recommended approval of this request at its September 6, 2018 meeting.

a. **Background Information:**

Forests provide a unique source of sustainable materials with great potential to be used as clean and renewable alternative to petrochemicals for many applications. Michigan forests support a vibrant products industry employing more than 87,000 professionals. These industries contribute \$17.8 billion in output sales, and \$6.7 billion in value-added products making it one of the most important economic sectors. MSU and the Department of Forestry have traditionally supported forest products industries through targeted outreach, research and educational programs. Forest bioproducts industries have expressed strong interest in prospective employees well prepared to support and embrace modern trends in wood and engineered composite manufacturing, construction and green bioproducts. There is also a clear need for a core program at MSU that strongly focuses on educational and research needs of the Michigan's forest products sector. There is no other such program in Michigan and MSU will be providing educational and outreach leadership, which are core of the land grant mission. It is estimated that full placement can be achieved for up to 50 graduates with wood science and technology expertise per year to satisfy the needs of Michigan forest products industries. The minor will be offered as supplement to the Forestry major, but students in Construction Management Program (CMP), Chemical Engineering (CHE), Biosystems Engineering (BE) and Material Sciences Engineering (MSE) interested in working with wood as an engineering material will benefit from the knowledge in this minor.

Michigan State has the only department of forestry in the Lower Peninsula. The department has maintained close ties with forest products industries, and continues to contribute to the sector through applied research projects, regular outreach services, and training of the workforce with internships and direct employment of graduates.

b. **Academic Programs Catalog Text:**

The Minor in Sustainable Bioproducts Science and Technology, which is administered by the Department of Forestry, is designed to prepare students to pursue a career, or graduate degrees in renewable wood-based bioproducts. Upon graduation, students will be academically and professionally well positioned in acquiring employment in companies or government departments whose focus is green building construction and furnishings, bioproducts engineering, structural design, and other green bioproducts employment opportunities. Students will be prepared for graduate studies in biomaterials and bioproducts.

The minor is available as an elective to students enrolled in bachelor's degree programs at Michigan State University. With the approval of the department and college that administer the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree.

Students who plan to apply to the program should consult the undergraduate advisor in the Department of Forestry.

Requirements for the Minor in Sustainable Bioproducts Science and Technology

Complete 19 to 21 credits from the following:

			CREDITS
1.	Both of the following courses (6 credits):		
	FOR 414	Renewable Wood Products	3
	FOR 479	Wood and Engineered Composites Science and Technologies	3
2.	One of the following courses (3 credits):		
	CHE 468	Biomass Conversion Engineering	3

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|----|---|-----|--|--------|
| | FOR | 212 | Introduction to Sustainable Bioproducts | 3 |
| 3. | One of the following courses (3 credits): | | | |
| | CMP | 222 | Statics and Strengths of Materials | 3 |
| | FOR | 427 | Biomass and Bioproducts Chemistry | 3 |
| | MSE | 320 | Mechanical Properties of Materials | 3 |
| 4. | One of the following courses (3 credits): | | | |
| | CMP | 322 | Structural Systems | 3 |
| | CMP | 491 | Special Topics in Construction Management | 3 |
| | MSE | 426 | Introduction to Composite Materials | 3 |
| | MSE | 465 | Design and Application of Engineering Materials | 3 |
| | Students choosing CMP 491 must enroll in the section on Green and Energy Efficient Residential Constructions. | | | |
| 5. | One of the following courses (3 credits): | | | |
| | BE | 469 | Sustainable Bioenergy Systems | 3 |
| | FOR | 335 | Socioeconomics of Sustainable Bioproducts | 3 |
| 6. | One of the following professional internships (1 to 3 credits): | | | |
| | CMP | 493 | Professional Internship in Construction Management | 3 |
| | EGR | 393 | Engineering Cooperative Education | 1 |
| | FOR | 493 | Professional Internship in Forestry | 1 to 3 |
| | The internship requirement can also be met by completing the internship course in the student's major department, but must be geared towards biomaterials and bioproducts and the course content and overall plan must be approved by the advisor for the minor in the Department of Forestry. The internship requirement can be met at any time during the student's academic program. | | | |

Effective Summer 2019.

2. Request to change the requirements of the **Bachelor of Science** degree in **Packaging** in the School of Packaging.

The concentrations in the Bachelor of Science degree in Packaging are noted on the student's academic record when the requirements for the degree have been completed.

- a. Under the heading **Requirements for the Bachelor of Science Degree in Packaging** make the following changes:

- (1) In item 3. d. delete the following course:

SCM	303	Introduction to Supply Chain Management	3
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Add the following course:

SCM	304	Survey of Supply Chain Management	3
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- (2) In item 3. e. make the following changes:

- (a) Under the heading **Packaging Science** change the credits of PKG 455 from '3' to '4'.

- (b) Under the heading **Packaging Value Chain Management** in item 3. delete the following course:

SCM	303	Introduction to Supply Chain Management	3
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Add the following course:

SCM	304	Survey of Supply Chain Management	3
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Effective Summer 2019.

COLLEGE OF HUMAN MEDICINE

1. Request to change the requirements for the **Master of Public Health** degree in **Public Health** in the College of Human Medicine. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.
 - a. Under the heading **Requirements for the Master of Public Health Degree in Public Health** make the following changes:
 - (1) In item 1. change the total credits from '22' to '25' and add the following course:

HM	828	Community Engagement in Public Health Practice	3
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 - (2) In item 4., change the credits from '12' to '9'.

Effective Summer 2019.

LYMAN BRIGGS COLLEGE

1. Request to change the **Graduation Requirements** for **Lyman Briggs College** leading to the **Bachelor of Science Degree in Lyman Briggs College**. The University Committee on Undergraduate Education (UCUE) will consider this request.
 - a. Under the heading **Requirements for Bachelor of Science Degree in Lyman Briggs College** make the following changes:
 - (1) In item 3. a. change the total credits from '46 to 55' to '48 to 57'.
 - (2) Replace item 3. a. (4) with the following:

Physics: One of the following groups of courses (8 to 10 credits):

 - (a) Lyman Briggs 273, 274.
 - (b) Physics 231, 232, 251, 252.
 - (c) Physics 183, 184, 191, 192.
 - (d) Physics 183B, 184B, 191, 192.
 - (e) Physics 191, 192, 193H, 294H.

Effective Fall 2019.

COLLEGE OF NATURAL SCIENCE

1. Request to delete the curriculum and degree requirements for the **Bachelor of Science** degree in **Earth Science-Interdepartmental** in the College of Natural Science. The University Committee on Undergraduate Education (UCUE) will provide consultative commentary to the Provost after considering this request. The Provost will make a determination after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2017. No students are to be readmitted to the program effective Spring 2017. Effective Spring 2021, coding for the program will be discontinued and the program will no longer be available in the College of Natural Science. Students who have not met the requirements for the Bachelor of Science degree in Earth Science-Interdepartmental through the College of Natural Science prior to Spring 2021 will have to change their major.

2. Request to change the requirements for the **Graduate Certificate in Medical Neuroscience** in the Program in Neuroscience. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.

- a. Under the heading **Requirements for the Graduate Certificate in Medical Neuroscience** in item 2., change the credits of NEU 842 from '2' to '3'.

Effective Summer 2019.

3. Request to change the requirements for the **Graduate Certificate in Neuroscience and the Law** in the Program in Neuroscience. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.

- a. Under the heading **Requirements for the Graduate Certificate in Neuroscience and the Law** change the credits of NEU 842 and NEU 843 from '2' to '3'.

Effective Summer 2019.

4. Request to change the name of the **Doctor of Philosophy** degree in **Environmental Geosciences to Earth and Environmental Sciences** in Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.

Students admitted to the major prior to Summer 2019 will be awarded a Doctor of Philosophy Degree in Environmental Geosciences.

Students admitted to the major Summer 2019 and forward will be awarded a Doctor of Philosophy Degree in Earth and Environmental Sciences.

Effective Summer 2019.

5. Request to change the **Admission** requirements for the **Doctor of Philosophy Degree in Earth and Environmental Sciences** in the Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.

- a. Under the heading **Admission** replace the entire entry with the following:

Students holding bachelor's or master's degrees may be admitted to the doctoral program in earth and environmental sciences on the basis of their performance during the previous two years of academic work. Satisfactory scores on the GRE General Test are required.

Effective Summer 2019.

6. Request to change the requirements for the **Doctor of Philosophy Degree in Earth and Environmental Sciences** in the Department of Earth and Environmental Sciences. The University Committee on Graduate Studies (UCGS) will consider this request at its November 5, 2018 meeting.

- a. Under the heading **Requirements for the Doctor of Philosophy Degree in Earth and Environmental Sciences** replace the entire entry with the following:

The program of study is determined by mutual agreement between the student and the guidance committee. The student must complete, or have completed prior to admission, 9 credits of course work in earth and environmental sciences and at least 3 credits in 800-level course work. Students must also complete 24 credits of doctoral dissertation research by enrollment in GLG 999.

The required comprehensive examination involves both an oral and a written portion and covers the area of the student's research specialty, those areas that interface with that specialty, and the significance of the proposed research program. Students who are admitted to the doctoral program with master's degrees must pass the comprehensive examination during the second year of enrollment in the program. Students who are admitted to the doctoral program with bachelor's degrees must pass the comprehensive examination during the third year of enrollment in the program.

Effective Summer 2019.

COLLEGE OF NURSING

1. Request to change the requirements for the **Bachelor of Science in Nursing** degree in **Nursing** in the College of Nursing.

a. Under the heading **Requirements for the Bachelor of Science in Nursing Degree in Nursing** make the following changes:

(1) In item 1., replace paragraph two with the following:

The completion of Mathematics 103 or Mathematics 103A and 103B; and Statistics and Probability 200 referenced below will also satisfy the University mathematics requirement. Students who place into Statistics and Probability 200 on the mathematics placement test and complete Statistics and Probability 200 are not required to complete Mathematics 103.

(2) In item 1., replace paragraph four with the following:

The University's Tier II writing requirement for the Nursing major is met by completing Nursing 342 and 460. Those courses are referenced in item 2. below.

(3) In item 2. b. delete the following courses:

NUR	322	Nursing Care of Acute and Chronically Ill Patients I	4
NUR	324	Health Promotion and Disease and Injury Prevention I	3
NUR	332	Nursing Care of Acute and Chronically Ill Patients II	5
NUR	334	Health Promotion and Disease and Injury Prevention II	3
NUR	375	Research and Evidence-Based Practice	2
NUR	436	Nursing Care of Children and Their Families	2
NUR	437	Nursing Care of the Childbearing Family	2
NUR	445	Nursing Care of Acute and Critically Ill Patients	6
NUR	475	Ethical Practice	2
NUR	481	Scholarship for Nursing Practice (W)	2

Add the following courses:

NUR	323	Nursing Care of Acute and Chronically Ill Patients I	5
NUR	333	Health Promotion	4
NUR	337	Nursing Care of Acute and Chronically Ill Patients II	6
NUR	342	Research, Ethics, and Evidence-Based Practice I	3
NUR	434	Nursing Care of Acute and Critically Ill Patients	4
NUR	438	Nursing Care of Children and Their Families	3
NUR	439	Nursing Care of the Childbearing Family	3
NUR	442	Research, Ethics, and Evidence-Based Practice II	3

Effective Fall 2019.

COLLEGE OF VETERINARY MEDICINE

1. Request to change the requirements for the **Bachelor of Science** degree in **Veterinary Technology** in the College of Veterinary Medicine. The University Committee on Undergraduate Education (UCUE) will consider this request.

a. Under the heading **Admission** make the following changes:

(1) Replace paragraph one with the following:

The number of students who can be admitted to the Bachelor of Science degree program in veterinary technology is limited. All persons who are interested in applying for admission to the bachelor's degree program in veterinary technology must complete an application which can be found, along with the application process instructions, by visiting www.cvm.msu.edu/lvt.

(2) Replace paragraph two with the following:

Applications for admission to the bachelor's degree program in veterinary technology are accepted through early February of the year that admission is sought.

(3) Replace sentence one of paragraph four with the following:

To be considered for admission, an applicant must have a minimum cumulative grade-point average of 2.75 and a minimum of a 2.5 grade-point average of the last 12 credits completed.

(4) In paragraph four, replace item 1. a. with the following:

One of the following:
(MTH 101 and MTH 103) or (MTH 103 and MTH 114) or MTH 116 or MTH 124 or MTH 132 or MTH 152H.

b. Under the heading **Requirements for the Bachelor of Science Degree in Veterinary Technology** make the following changes:

(1) In item 1., replace paragraph three with the following:

The University's Tier II writing requirement for the Veterinary Technology major is met by completing the following courses: Veterinary Medicine 412 and 413. Those courses are referenced in items 2. a. below.

(2) Replace item 2. b. with the following:

One of the following options (5 to 7 credits):

(1)	MTH	116	College Algebra and Trigonometry	5
(2)	MTH	103	College Algebra	3

and
One of the following:

	MTH	101	Quantitative Literacy I	3
	MTH	102	Quantitative Literacy II	3
	MTH	114	Trigonometry	3
	MTH	124	Survey of Calculus I	3
	MTH	132	Calculus I	3
	MTH	152H	Honors Calculus I	3
	MTH	201	Elementary Mathematics for Teachers I	3
	STT	200	Statistical Methods	3
	STT	201	Statistical Methods	4

(3) Successfully complete the proctored mathematics placement exam with a score of 19 or higher.

(3) In item 2. c. delete the following courses:

ANS	404	Advanced Animal Genetics	2
ANS	417	Topics in Toxicology	1

VM	310	Advanced Clinical Pathology Techniques	1
ZOL	313	Animal Behavior	3
ZOL	341	Fundamentals of Genetics	4
ZOL	369	Introduction to Zoo and Aquarium Science	3
ZOL	402	Neurobiology	3
ZOL	408	Histology	4
ZOL	413	Laboratory in Behavioral Neuroscience (W)	4
ZOL	415	Ecological Aspects of Animal Behavior (W)	3
ZOL	430	Neuroendocrine Aspects of Behavior	3

Add the following courses:

IBIO	300	Neurobiology	3
IBIO	313	Animal Behavior	3
IBIO	341	Fundamentals of Genetics	4
IBIO	369	Introduction to Zoo and Aquarium Science	3
IBIO	408	Histology	4
IBIO	413	Laboratory in Behavioral Neuroscience (W)	4
IBIO	415	Ecological Aspects of Animal Behavior (W)	3

Effective Spring 2019.

2. Request to establish a **Graduate Certificate in Food Safety** in the Department of Large Animal Clinical Sciences. The University Committee on Graduate Studies (UCGS) will consider this request.

The Graduate Certificate in Food Safety is a Type 2 graduate certificate and will appear on the transcript as “Graduate Certificate Program in Food Safety”.

a. **Background Information:**

The Graduate Certificate in Food Safety embodies the principles of prevention of foodborne illness. The certificate would be fully online and is being developed to address the needs of the food industry, government, and public health for their employees to be specifically educated in the many aspects of safeguarding our food supply. The certificate is open to all concurrently enrolled graduate students and lifelong education students, except those in the Master of Science in Food Safety degree program. Currently, a non-transcriptable certificate is offered for lifelong or concurrently enrolled graduate students who complete 12 credits of food safety course work. Concurrently, a moratorium is being requested for the deletion of the Food Safety and Toxicology Certificate and the Food Safety Graduate Specialization, both of which will be replaced by this 12-credit certificate. The Food Safety and Toxicology Certificate was originally created as a specific program geared toward graduate students in the Master of Public Policy (MPH) program. That certificate is 18 credits and consists of four courses VM 811, VM 812, VM 821, and VM 832. VM 832 is no longer offered. An FSC (Food Law) course and a HM course also contributed to its requirements. To date there have been five MPH students who have completed the Food Safety and Toxicology Certificate and there are currently zero students pursuing the certificate. The proposed Food Safety graduate certificate would reach a broader audience. There is a larger interest in certificates and this 12-credit version could offer a better option for concurrently enrolled graduate students at MSU to specialize in food safety without pursuing an 18-credit certificate or a second graduate degree. The 12-credit certificate also would allow lifelong students to earn a transcriptable certificate in food safety without needing to pursue an advanced degree. The graduate specialization program was originally created in 2002 and has proven of little interest to students. Perhaps it is too onerous and not compatible with other graduate programs. In the last eight years the Online Food Safety program has not had interest for the graduate specialization program. Prospective students and graduate students in other programs on campus express interest in a short food safety certificate or a dual master’s degree. The proposed version of the food safety certificate would ensure that students get the bulk of the core science through enrollment in VM 811, VM 812, and VM 831.

b. **Academic Programs Catalog Text:**

The Graduate Certificate in Food Safety embodies the principles of prevention of foodborne illness. The certificate is a fully online program that addresses the needs of the food industry, government,

and public health for their employees to be educated in many of the aspects of safeguarding food supply. The certificate is not open to student's pursuing the Master of Science degree in Food Safety.

Requirements for the Graduate Certificate in Food Safety

CREDITS

Students must complete 12 credits from the following:

1. All of the following courses (9 credits):
 - VM 811 Evolution and Ecology of Foodborne Pathogens 3
 - VM 812 Food Safety Toxicology 3
 - VM 831 Foodborne Disease Epidemiology for the Professional 3
2. One of the following courses (3 credits):
 - FSC 810 International Food Laws and Regulations 3
 - FSC 811 U.S. Food Laws and Regulations 3
 - VM 814 Packaging for Food Safety 3
 - VM 817 Livestock Pre-Harvest Food Safety 3
 - VM 821 Food Protection and Defense 3
 - VM 824 Global Food Safety 3
 - VM 825 Quantifying Food Risk 3
 - VM 834 Current Issues in Food Safety 3
 - VM 835 Food Safety for Produce 3
 - VM 840 Anti-Counterfeit Strategy and Product Production 3

Other 800-level courses may be used to fulfill this requirement with program advisor approval.

Effective Summer 2019.

PART II - NEW COURSES AND CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

FW 824	Analysis of Wildlife Populations Spring of even years. 3(2-3)
REINSTATEMENT	Statistical and ecological concepts, methods and computer techniques needed to analyze and interpret demographic data from fish and wildlife studies. Effective Spring 2020
FOR 212	Introduction to Sustainable Bioproducts Spring of every year. 3(3-0)
NEW	Introduction to sustainable bioproducts derived from biomass, and their importance for sustainable societies. Effective Fall 2018
FOR 335	Socioeconomics of Sustainable Bioproducts Spring of every year. 3(3-0) RB: FOR 212 R: Not open to freshmen.
NEW	Role of forest bioproducts in developing sustainable communities. Resource planning and availability for value added bioproducts. Bioproducts supply-chains analysis and principles of life cycle implementation. Effective Fall 2018
FOR 427	Biomass and Bioproducts Chemistry Spring of every year. 3(2-2) P: CEM 141 or CEM 151 or LB 171 RB: FOR 212 R: Not open to freshmen.
NEW	Chemistry of wood, engineered composites and bioproducts. Chemical characterization of biopolymers from woody biomass and bioproducts. Overview of analytical methods related to bioproducts chemistry. Effective Fall 2018
FOR 479	Wood and Engineered Composites Science and Technologies Spring of every year. 3(2-2) Interdepartmental with Construction Management Program. P: FOR 414 or concurrently
NEW	Sciences and technologies governing industrial and manufacturing processes for lumber, engineered wood, and composite wood products. Effective Fall 2018

COLLEGE OF ENGINEERING

ECE 846	Multi-Criterion Optimization and Decision-Making Fall of even years. 3(3-0) RB: Knowledge on at least one programming language, Basic knowledge in Calculus
NEW	Most practical optimization problems naturally possess more than one conflicting criteria. A solution procedure for such problems is not trivial and involves finding multiple trade-off optimal solutions. In this course, students will learn various definitions for Pareto-optimality and systematic computerized algorithms for finding Pareto-optimal solutions. The methodologies will include classical generative methods and emerging methods using evolutionary optimization methods. Decision-making tasks to choose a final preferred solution will also be discussed. <u>Request the use of ET-Extension to postpone grading.</u> <u>The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.</u> Effective Fall 2018

COLLEGE OF HUMAN MEDICINE

- EM 631 Clinical Experience in Emergency Medicine
Fall of every year. Spring of every year. Summer of every year. 3 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: (HM 556) or (FM 608 and MED 608 and PHD 600 and PSC 608 and OGR 608 and SUR 608) R: Open to graduate-professional students in the College of Human Medicine.
- NEW Two-week elective in clinical diagnosis and treatment of the undifferentiated patient in the emergency department setting. Intended for students not planning to apply to an Emergency Medicine Residency.
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 2018
- EM 632 Senior Clinical Elective in Emergency Medicine
Fall of every year. Spring of every year. Summer of every year. 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: (FM 641 and MED 641 and PHD 641 and PSC 641 and OGR 641 and SUR 641) or (FM 608 and MED 608 and PHD 600 and PSC 608 and OGR 608 and SUR 608) R: Open to graduate-professional students in the College of Human Medicine.
- NEW Four-week elective in clinical diagnosis and treatment of the undifferentiated patient in the emergency department setting. Intended for students planning to apply to an Emergency Medicine Residency.
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 2018
- EPI 840 Clinical Epidemiology for Healthcare Practice
~~Fall of every year.~~ Spring of every year. 3 credits. R: Approval of department.
Introduction to clinical epidemiology and evidence-based medicine for clinical practitioners and other healthcare professionals.
~~Effective Fall 2018~~ Effective Fall 2018
- EPI 860 Advanced Inference for Biostatistics
Fall of every year. 3(3-0) Interdepartmental with Statistics and Probability. ~~P: STT 861 and STT 862 or approval of department~~ P: STT 861 and (STT 862 or concurrently) or approval of department
RB: Masters in statistics or biostatistics R: Open to doctoral students in the Department of Epidemiology and Biostatistics or approval of department.
Statistical inference problems with biomedical applications.
~~Effective Spring 2018~~ Effective Spring 2019
- FM 644 Family Medicine SubInternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: FM 641 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Based in community hospitals and/or ambulatory sites. Emphasizes interviewing skills, history, physical exam, problem solving and therapy.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018

- HM 807 ~~Practical Application and Critical Thinking Synthesis in Public Health~~
Practical Application and Critical Thinking in Public Health
Fall of every year. Spring of every year. Summer of every year. 3(3-0) RB: Academic or professional background in public health and/or public health related discipline R: Open to students in the Public Health Major or approval of college.
Critical thinking, reading skills, explanations, problem solving, and decision making in public health using case studies. Questioning assumptions, identifying bias, determining causality, and application of the scientific method. Reporting guidelines and systematic literature reviews.
~~Effective Summer 2018~~ Effective Fall 2018
- HM 828 Community Engagement in Public Health Practice
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 graduate students in the Public Health Major.
- NEW Topics and skills for community engagement in public health, including methods, ethics, and issues in community engaged practice and scholarship.
Effective Fall 2018
- HM 892 ~~Public Health Practicum~~
Public Health Applied Practice Experience
Fall of every year. Spring of every year. Summer of every year. 1 to 8 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: HM 801 and HM 891 RB: Academic or professional background in public health or public health-related discipline, undergraduate level math or statistics course work. R: Approval of college.
Professional practicum.
~~Effective Summer 2018~~ Effective Fall 2018
- HM 893 ~~Public Health Capstone~~
Public Health Integrative Learning Experience
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. P: HM 801 and HM 891 and HM 892 RB: Academic or professional background in public health and/or public health related discipline, undergraduate level math or statistics coursework R: Approval of college.
Capstone experience.
~~Effective Spring 2019~~ Effective Fall 2018
- MED 619 Advanced Internal Medicine-Ambulatory
Fall of every year. Spring of every year. Summer of every year. ~~6(6-0)~~ 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: MED 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Clinical experiences to refine diagnostic and management skills of the complicated general internal medicine patient in the ambulatory setting.
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 Summer 2018~~ Effective Summer 2019
- MED 621 Advanced Internal Medicine-Inpatient
Fall of every year. Spring of every year. Summer of every year. ~~6(6-0)~~ 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: MED 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Clinical experiences to refine diagnostic and management skills of the complicated general internal medicine patient in the inpatient setting.
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 Summer 2018~~ Effective Summer 2019

- MED 644 Internal Medicine Subinternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: MED 641 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Based in community hospitals and/or ambulatory sites, this is a 2 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018
- OGR 644 Obstetrics and Gynecology Clerkship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: OGR 641 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Based in community hospitals and/or ambulatory sites, this is a 2 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018
- PHD 644 Pediatric Subinternship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: PHD 641 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Interviewing skills, history, physical exam, problem solving and therapy in community hospitals and/or ambulatory sites.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018
- PSC 644 Psychiatry and Behavioral Science Clerkship in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: PSC 641 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Based in community hospitals and/or ambulatory sites, this is a 2 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018
- RAD 609 Radiology Clerkship
Fall of every year. Spring of every year. Summer of every year. ~~4 to 8 credits. 3 to 12 credits. A student may earn a maximum of 32 credits in all enrollments for this course.~~ A student may earn a maximum of 24 credits in all enrollments for this course. RB: Completion of two years of graduate-professional program in College of Human Medicine or College of Osteopathic Medicine. R: Open to graduate-professional students in the College of Human Medicine or in the College of Osteopathic Medicine.
~~Diagnostic imaging consultation. Participation in image interpretation and observation in hospital or out-patient radiology setting.~~ Diagnostic imaging consultation. Participation in image interpretation and observation in hospital or out-patient radiology setting.
Radiological procedure guideline and patient safety and comfort. Complications of radiological procedures.
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 1992~~ Effective Summer 2018

- SUR 644 Surgery in the Late Clinical Experience Remediation
Fall of every year. Spring of every year. Summer of every year. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: SUR 641 or SUR 642 R: Open to graduate-professional students in the College of Human Medicine.
- NEW Based in community hospitals and/or ambulatory sites, this is a 2 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.
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 1 semester after the end of the semester of enrollment.
Effective Fall 2018

COLLEGE OF NATURAL SCIENCE

- BMB 801 Molecular Biology
Fall of every year. 3(3-0) ~~RB: BMB 462, CEM 383~~ RB: BMB 462 and CEM 383 ~~Not open to students with credit in BMB 807A or BMB 807A.~~
Organization of genes. Regulation of gene expression, replication, and recombination.
SA: BCH 801
~~Effective Fall 2004~~ Effective Spring 2019
- NEU 842 Neuroethics
Summer of every year. ~~2(2-0)~~ 3(3-0) RB: (NEU 840 or concurrently) or (NEU 841 or concurrently)
Introduction to the field of neuroethics and the responsible application of advances in neuroscience research.
~~Effective Summer 2017~~ Effective Summer 2019

COLLEGE OF NURSING

- NUR 205 Introduction to Professional Nursing
Fall of every year. Spring of every year. Summer of every year. 4(2-6) ~~P: CEM 143 and PSY 101 P: CEM 143 and PSY 101 and HDFS 225~~ RB: Not open to RN-BSN students. R: Open to students in the Nursing Major. ~~C: NUR 300 concurrently or NUR 301 concurrently.~~
Principles and practices of holistic nursing care that allow for analysis of a comprehensive collection of patient data to provide basic clinical care to the adult population.
~~Effective Fall 2016~~ Effective Fall 2019
- NUR 301 Clinical Pathophysiology
Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: {(PSL 250 or PSL 310) or (PSL 431 and PSL 432)} and ANTR 350 R: Open to students in the College of Nursing. Not open to students with credit in NUR 300.
How disrupting normal structures and functions of the human body leads to disease processes from the cellular to the multisystem level. Critical examination of the mechanisms underlying signs and symptoms of diseases.
~~Effective Summer 2017~~ Effective Fall 2019
- NUR 323 Nursing Care of the Acute and Chronically Ill Patients I
Fall of every year. Spring of every year. Summer of every year. 5(2-9) P: (NUR 300 or NUR 301) and (MMG 201 and MMG 302) and (NUR 205 and PHM 350)
- NEW Focus on using the nursing process and clinical judgment at a novice level to provide care for chronically and acutely ill adult patients.
Effective Fall 2019

NUR 333	Health Promotion Fall of every year. Spring of every year. Summer of every year. 4(3-3) P: HDFS 225 and HNF 150 and NUR 205 and NUR 301 and PHM 350 and MMG 201 and MMG 302
NEW	Principles and practices of health promotion/risk reduction through understanding and developing health capacity for populations, families, and individuals. Effective Fall 2019
NUR 337	Nursing Care of Acute and Chronically Ill Patients II Fall of every year. Spring of every year. 6(3-9) P: NUR 323 and NUR 333
NEW	Focuses on using the nursing process and clinical judgment at an intermediate level to manage care for acute and chronically ill patients. Effective Fall 2019
NUR 342	Research, Ethics, and Evidence-Based Practice I Fall of every year. Spring of every year. 3(3-0) P: (STT 200 or STT 201) and ((NUR 323 and NUR 333) and completion of Tier I writing requirement)
NEW	Introduction to evidence based practice and research methodology to inform ethical nursing practice. Effective Fall 2019
NUR 371	Behavioral Health Nursing Fall of every year. Spring of every year. 4(2-6) P: NUR 322 and NUR 324 <u>P: NUR 323 and NUR 333</u> C: NUR 332 concurrently and NUR 334 concurrently.
	Extension of foundational social science concepts into nursing therapeutics aimed at behavioral health and the care of persons with mental illnesses Effective Fall 2016 <u>Effective Fall 2019</u>
NUR 434	Nursing Care of Acute and Chronically Ill Patients III Fall of every year. Spring of every year. 4(2-6) P: NUR 337 and NUR 371 and NUR 342
NEW	Focuses on using the nursing process and clinical judgment at an advanced level to manage and evaluate care for acute and critically ill patients. Effective Fall 2019
NUR 438	Nursing Care of Children and their Families Fall of every year. Spring of every year. 3(1-6) P: NUR 337 and NUR 371 and NUR 342
NEW	Theoretical concepts and clinical application of nursing care for ill children and adolescents using a holistic perspective in varied settings. Effective Fall 2019
NUR 439	Nursing Care of the Childbearing Family Fall of every year. Spring of every year. 3(2-3) P: NUR 337 and NUR 371 and NUR 342
NEW	Theoretical concepts and clinical application of nursing care for the normal and at risk childbearing families using a holistic perspective in varied settings. Effective Fall 2019
NUR 442	Research, Ethics, and Evidence-Based Practice II Fall of every year. Spring of every year. Summer of every year. 3(3-0) P: (NUR 342 and NUR 434 and NUR 438 and NUR 439) and completion of Tier I writing requirement
NEW	Application of evidence based practice and research methodology to inform ethical nursing practice. Effective Fall 2019
NUR 460	Leadership in Clinical Practice Fall of every year. Spring of every year. Summer of every year. 5(2-9) P: (NUR 445 and NUR 436 and NUR 437) and completion of Tier I writing requirement <u>P: NUR 434 and NUR 438 and NUR 439</u> C: NUR 475 concurrently.
	A capstone course that includes a precepted practicum to facilitate the student's transition to professional practice. The focus is on the application of leadership concepts, theories, and principles. Effective Fall 2016 <u>Effective Fall 2019</u>

- NUR 470 Community and Population Health Nursing
Fall of every year. Spring of every year. Summer of every year. 4(2-6) ~~P: NUR 435 or (NUR 455 and NUR 465)~~ P: NUR 455 and NUR 465
Theoretical and practicum basis for community-oriented population nursing practice. Promoting and protecting the health of the public using health promotion, risk reduction, and disease management and control strategies with vulnerable persons and populations. Community assessment, epidemiologic, environmental, change, political action, and case-management frameworks are used to guide evidence-based nursing care delivery to persons, families, and populations in community settings.
~~Effective Spring 2014~~ Effective Fall 2018
- NUR 471 Public Health Nursing
Fall of every year. Spring of every year. Summer of every year. 3(2-3) ~~P: NUR 445 and NUR 436 and NUR 437~~ P: NUR 434 and NUR 438 and NUR 439 ~~C: NUR 475 concurrently.~~
Use of the public health system to care for populations, including application of the principles and practices of public health nursing.
~~Effective Fall 2015~~ Effective Fall 2019

COLLEGE OF OSTEOPATHIC MEDICINE

- OST 592 Self-Directed Integration of Medical Knowledge
Summer of every year. 6(2-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.
- NEW OST 592 is a 6 credit hour course that will utilize two approaches: 1) Coaching and 2) SCILS(Supporting Competency in Integrated Learning) workshops to enable the student to conduct a successful,self-directed review and integration of basic science and systems medical knowledge content and clinicalcorrelations. The course will include checkpoints through submission of written self-reflections that will bereviewed by instructors; regularly scheduled meetings through zoom or phone call, and regularly scheduledgroup study sessions.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2019
- OST 604 Essential Clinical Skills for the Senior Medical Student
Fall of every year. Spring of every year. Summer of every year. 1 to 2 credits. Interdepartmental with Osteopathic Manipulative Medicine. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to seniors in the College of Osteopathic Medicine.
- NEW Longitudinal experience addressing essential skills for senior osteopathic medical students.
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 1 semester after the end of the semester of enrollment.
Effective Summer 2019