PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF NURSING

1. Request to change the requirements for the Master of Science in Nursing degree in Nursing. The University Committee on Graduate Studies (UCGS) will consider this request at its November 11, 2019 meeting.

The concentrations in the Master of Science in Nursing degree in Nursing are noted on the student’s academic record when the requirements for the degree have been completed.

a. Under the heading Admission make the following change:

(1) Replace item 5. with the following:

Completed a 3-credit undergraduate statistics course with a grade of 2.0 (4.0 scale) or better within the last five years or completed a 3-credit graduate statistics course with a grade of 3.0 (4.0 scale) or better within the last five years.

Effective Fall 2020.

2. Request to change the requirements for the Doctor of Nursing Practice degree in Nursing Practice. The University Committee on Graduate Studies (UCGS) will consider this request at its November 11, 2019 meeting.

The concentrations in the Doctor of Nursing Practice degree in Nursing Practice are noted on the student’s academic record when the requirements for the degree have been completed.

a. Under the heading Admission replace item . With the following:

Completed a 3-credit undergraduate statistics course with a grade of 2.0 (4.0 scale) or better within the last five years or completed a 3-credit graduate statistics course with a grade of 3.0 (4.0 scale) or better within the last five years.

b. Under the heading Admission to the Post-Master’s Degree replace paragraph one with the following:

To be considered for admission to the Doctor of Nursing Practice, post-master’s entry program, an applicant must:

1. Submit a university application for admission and a curriculum vita or resume.
2. Complete a Master of Science of Nursing degree from an accredited college or university.
3. Possess a current unrestricted license to practice nursing as a registered nurse in the applicant’s state or country. For those applicants practicing in Michigan, a current registered nurse Michigan license is required. Applicants who hold registered nurse licensure from other states or countries and who are in the Nurse Practitioner and Anesthesia concentrations may be admitted provisionally with the requirement that a United States and Michigan registered nurse license must be obtained prior to progression.
4. Possess current certification from a U.S. National Certifying Board as an NP, CRNA, CNS or CNM.
5. A minimum grade-point average of 3.0 (4.0) scale for total credits completed during the master’s program.
6. Complete a 3-credit undergraduate statistics course with a grade of 2.0 (4.0 scale) or better within the last five years or complete a 3-credit graduate statistics course with a grade of 3.0 (4.0 scale) or better within the last 5 years.
7. Submit a written essay that addresses the applicant’s career goals and motivations for doctoral study.
8. Submit three letters of recommendation. The reference letters must be from a source that has direct knowledge of the applicant’s work and educational experience specifying the applicant’s ability to do doctoral work.

9. Complete an admission interview with the College of Nursing faculty. Recommendations for admission are made by the faculty committee to the Dean of the College based on requirements for admission and the personal interview.

10. If the applicant’s native language is not English, the applicant must complete the Test of English as a Foreign Language (TOEFL) with a minimum average score of 550, no subscore below 52 on the paper-based test (PBT). If the applicant completes the Internet-based test (iBT), no subscore below 19 for reading, listening, and speaking; no writing subscore below 22 and a minimum average score of 80. Applicants should have all test scores sent from the testing agency directly to Michigan State University Office of Admissions.

Students will have an option to complete an additional APRN specialty if requested, and be admitted to a concentration.

Effective Fall 2020.

COLLEGE OF VETERINARY MEDICINE

1. Request to delete the curriculum and degree requirements for the Graduate Specialization in Food Safety in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its September 9, 2019 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Spring 2019. No students are to be readmitted to the program effective Spring 2019. Effective Fall 2019, coding for the program will be discontinued and the program will no longer be available in the College of Veterinary Medicine. Students who have not met the requirements for the Graduate Specialization in Food Safety through the College of Veterinary Medicine prior to Fall 2019 will have to change their major.

2. Request to delete the curriculum and degree requirements for the Graduate Certificate in Food Safety and Toxicology in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) provided consultative commentary to the Provost after considering this request at its September 9, 2019 meeting. The Provost made the determination to discontinue the program after considering the consultative commentary from the University Committee on Graduate Studies.

No new students are to be admitted to the program effective Spring 2019. No students are to be readmitted to the program effective Spring 2019. Effective Summer 2019, coding for the program will be discontinued and the program will no longer be available in the College of Veterinary Medicine. Students who have not met the requirements for the Graduate Certificate in Food Safety and Toxicology through the College of Veterinary Medicine prior to Summer 2019 will have to change their major.
PART II - NEW COURSES AND CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

ANS 804  Introduction to Quantitative Genetics
Fall of every year. 3(3-0) RB: (ANS 314) and ((STT 200 or STT 201) or or equivalent) Not open to students with credit in ANS 404.
NEW  Theories and applications of quantitative genetics; mutations, recombination, selection, and their roles in shaping genetic variation and covariance in idealized and finite populations; analysis of quantitative trait variation and genetic parameters; gene mapping and genetic prediction; applications in breeding
Effective Fall 2019

ANS 824  Methods of Quantitative and Molecular Genetics for Livestock
Methods in Quantitative Genomics
Fall of every year, Spring of odd years. 3(2-2) RB: ANS 404 RB: (ANS 314) or Equivalent
Quantitative and molecular methods for animal geneticists. Identification and evaluation of molecular markers, genome maps, linkage and segregation analyses, optimal mating designs, and marker-quantitative trait loci associations in livestock species. Storage, processing and analysis of genotypic and phenotypic data using R. Basic R programming and R tools for genomic analyses. Genome-wide association studies and genomic prediction.
Effective Spring 1999 Effective Fall 2019

ANS 870  Mixed models for animal breeding and genetics
Fall of even years. 3(3-0) P: STT 814 or approval of department
NEW  Best linear unbiased prediction of genetic merit in outbreeding populations; likelihood-based and hierarchical methods for genetic parameter estimation; analysis of selected populations; development of selection indexes; methods for quantitative genetic analysis of continuous and discrete outcomes.
Effective Fall 2020

ANS 924  Advanced Methods in Quantitative Genomics
Spring of every year. 3(2-2) RB: (ANS 824) or equivalent.
NEW  Advanced R programming, Artificial Intelligence applied to genomics, sequence and RNAseq analyses, gene enrichment and functional genomics, population genetics and phylogenetics with applications in livestock.
Effective Spring 2020

ENT 364  Turfgrass Entomology
Fall of every year. 3(2-2) P: CSS 232
SA: CSS 362 SA: CSS 362, ENT 364
Effective Fall 2013 Effective Fall 2019

ENT 451  Insect Physiology
Spring of even years. 3(3-0) Interdepartmental with Integrative Biology. P: BS 161 or LB 145 or ENT 404
Effective Fall 2019
ENT 802  Nature and Practice of Science
Spring of every year. 2(2-0) R: Open to graduate students in the College of Agriculture and Natural Resources and open to graduate students in the College of Natural Science or approval of department.

NEW Exploration of the nature of the scientific endeavor and how individual scientists can become more successful in its practice.
SA: NSC 830
Effective Spring 2020

FW 446  Innovations for Conservation
Spring of every year. 4(4-0) P: WRA 101 R: Open to sophomores or juniors or seniors.
Effective Fall 2019

**COLLEGE OF ENGINEERING**

EGR 811  Foundations of Engineering Education
Fall of every year. 3(3-0) RB: Teaching experience (e.g. TA) and interest in becoming a higher education faculty member as a career. R: Open to graduate students in the College of Engineering. Approval of department. R: Open to graduate students in the College of Engineering.
Introduces the theoretical foundations of engineering education, student learning theories, educational research, and instructional design. How to effectively teach, manage, and assess student performance.
Effective Fall 2014 Effective Fall 2020

**COLLEGE OF NATURAL SCIENCE**

BMB 101  Frontiers in Biochemistry
Fall of every year. 1(1-0) R: Open to freshmen or sophomores. R: Open to freshmen or sophomores in the Biochemistry and Molecular Biology/Biotechnology Major or in the Biochemistry and Molecular Biology major or in the Lyman Briggs Biochemistry and Molecular Biology Coordinate Major or in the Lyman Briggs-Biochemistry/Biotechnology Coordinate Major or approval of department.
Topics in biochemistry research, introduction to topics in biochemistry, career paths, professional development, and campus resources.
SA: BCH 101, BMB 100
Effective Summer 2014 Effective Fall 2020

BMB 462  Advanced Biochemistry II
Fall of every year. Spring of every year. 3(3-0) P: BMB 461 or BMB 401 P: (BMB 461 or BMB 401) and (BS 161 or BS 181H or LB 145) and ((BS 162 or concurrently) or (BS 182H or concurrently) or (LB 144 or concurrently)) and (CEM 252 or CEM 352) RB: LB 118 or MTH 132 or MTH 152H
Continuation of BMB 461. Structure, function, and biophysical properties of lipids and nucleic acids including membranes, lipid metabolism, signaling and metabolic regulation, DNA replication and repair, transcription, translation, and regulation of gene expression.
SA: BCH 462
Effective Summer 2014 Effective Fall 2019
**CEM 141  General Chemistry**

Fall of every year. Spring of every year. Summer of every year. 4(4-0) P: ((MTH 103 or concurrently) or (MTH 110 or concurrently) or (MTH 116 or concurrently) or (MTH 124 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently)) or designated score on Mathematics Placement test P: ((MTH 103B or concurrently) or (MTH 103 or concurrently) or (MTH 110 or concurrently) or (MTH 116 or concurrently) or (MTH 124 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118) or designated score on Mathematics Placement test

Elements and compounds; reactions; stoichiometry; thermochemistry; atomic structure; chemical bonding; states of matter; solutions; acids and bases; aqueous equilibria.

**Effective Fall 2017 Effective Spring 2019**

**CEM 495  Molecular Spectroscopy**

Fall of every year. 2(1-4) 3(1-4) P: (CEM 483 or CEM 484) and (CEM 395 or CEM 499) and (CEM 262 and completion of Tier I writing requirement) P: (CEM 483 or concurrently) and (CEM 395 or CEM 499) and (CEM 262 and completion of Tier I writing requirement)

Experiments in magnetic resonance, optical, and vibrational spectroscopies. Experiments in electronic and vibrational spectroscopies.

SA: CEM 472

**Effective Fall 2015 Effective Summer 2020**

**NSC 111  States of Mind Enhancing Skills and Wellbeing**

Fall of every year. Spring of every year. 2 to 3 credits. R: Open to students.

NEW

Mindful states will be examined from both a personal and societal perspective as they relate to physical, mental and community health, ethical awareness, compassion, flourishing, resiliency, distractibility and peak performance.

**Effective Spring 2020**

**PHY 231  Introductory Physics I**

Fall of every year. Spring of every year. 3(4-0) P: MTH 114 or MTH 116 or MTH 124 or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently) P: MTH 114 or MTH 116 or MTH 124 or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently) Not open to students with credit in LB 273 or PHY 183 or PHY 183B or PHY 193H or PHY 231C. Not open to students with credit in LB 273 or PHY 183 or PHY 183B or PHY 193H or PHY 231C or PHY 241.

Mechanics, Newton's Laws, momentum, energy, conservation laws, thermodynamics, waves, sound.

**Effective Fall 2014 Effective Fall 2020**

**PHY 231C  Introductory Physics I**

Fall of every year. Spring of every year. Summer of every year. 3 credits. P: MTH 114 or MTH 116 or MTH 124 or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently) P: MTH 114 or MTH 116 or MTH 124 or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 117 or LB 118 or concurrently) RB: MTH 116 Not open to students with credit in LB 273 or PHY 183 or PHY 183B or PHY 193H or PHY 231. Not open to students with credit in LB 273 or PHY 183 or PHY 183B or PHY 193H or PHY 231 or PHY 241.

Mechanics, Newton's Laws, momentum, energy, conservation laws, thermodynamics, waves, sound. This course is an internet based course.

**Effective Fall 2014 Effective Fall 2020**

**PHY 251  Introductory Physics Laboratory I**

Fall of every year. Spring of every year. Summer of every year. 1(0-2) P: (PHY 183 or concurrently) or (PHY 183B or concurrently) or (PHY 193H or concurrently) or (PHY 231 or concurrently) or (PHY 231C or concurrently) P: (PHY 183 or concurrently) or (PHY 183B or concurrently) or (PHY 193H or concurrently) or (PHY 231 or concurrently) or (PHY 231C or concurrently) or (PHY 241 or concurrently) RB: MTH 103 Not open to students with credit in LB 273 or PHY 191.

Laboratory exercises involving simple mechanical systems.

**Effective Fall 2013 Effective Spring 2020**
PHY 252  Introductory Physics Laboratory II
Fall of every year. Spring of every year. Summer of every year. 1(0-2) P: (PHY 251 or PHY 191 or LB 273) and ((PHY 232 or concurrently) or (PHY 232C or concurrently) or (PHY 184 or concurrently) or (PHY 184B or concurrently) or (PHY 294H or concurrently)) P: (PHY 251 or PHY 191 or LB 273) and ((PHY 184 or concurrently) or (PHY 184B or concurrently) or (PHY 232 or concurrently) or (PHY 232C or concurrently) or (PHY 242 or concurrently) or (PHY 294H or concurrently)) Not open to students with credit in LB 274 or PHY 192.
Laboratory exercises involving simple electromagnetic and optical systems.
Effective Fall 2013 Effective Spring 2020

STT 231  Statistics for Scientists
Fall of every year. Spring of every year. Summer of every year. 3(3-0) 3(4-0) P: MTH 124 or MTH 132 or MTH 152H or LB 118 R: Open to students in the College of Natural Science and open to students in the Lyman Briggs College.
Calculus-based course in probability and statistics. Probability models, and random variables. Estimation, confidence intervals, tests of hypotheses, and simple linear regression with applications in sciences.
SA: STT 331
Effective Fall 2014 Effective Fall 2019

COLLEGE OF OSTEOPATHIC MEDICINE

IM 619  Readiness for Residency: A Simulation Based Competency Skills Assessment
Spring of every year. 3(2-2) A student may earn a maximum of 3 credits in all enrollments for this course. RB: Years 1-4 of curriculum for MSUCOM R: Open to graduate-professional students in the College of Osteopathic Medicine.
NEW A simulation and classroom based rotation to allow 4th year MSUCOM students to be assessed to determine their procedural and communication medical skills prior to entering residency based on common milestones, entrustable professional activities, and core competencies where relevant, using mastery learning techniques.
Request the use of the Pass-No Grade (P-N) system.
Effective Spring 2020

OST 402  Introduction to Global Health
On Demand. 3(3-0)
NEW 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 Summer 2020

OST 832  Independent Study in United States Health Systems
On Demand. 1 to 3 credits.
NEW Independent study in areas relevant to the United States Health Systems.
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 2020