PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

COLLEGE OF VETERINARY MEDICINE

1. Request to change the requirements for the Preprofessional Program for Veterinary Medicine in the College of Veterinary Medicine.

   a. Under the heading Requirements for the Preveterinary Program make the following changes:

      (1) In item 1. make the following changes:

         (a) Change the total credits from '50' to '38'.

         (b) Delete the following courses:

            - ANS 313 Principles of Animal Feeding and Nutrition 4
            - BS 110 Organisms and Populations 4
            - BS 111 Cells and Molecules 3
            - BS 111L Cell and Molecular Biology Laboratory 2
            - MMG 301 Introductory Microbiology 3
            - MMG 302 Introductory Microbiology Laboratory 1
            - MMG 409 Eukaryotic Cell Biology 3

         Add the following courses:

            - BS 161 Cell and Molecular Biology 3
            - BS 162 Organismal and Population Biology 3
            - BS 171L Cell and Molecular Biology Laboratory 2

      (2) Replace item 2. with the following:

         Advanced Biology Elective (3-credit minimum): a course selected from cell biology, genetics, histology, immunology, neurobiology, or physiology.

      Effective Spring 2018.

2. Request to change the requirements for the Doctor of Veterinary Medicine degree in Veterinary Medicine in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) will consider this request at its October 9, 2017 meeting.

   a. Under the heading Admission to the Professional Program in Veterinary Medicine make the following changes:

      (1) Replace paragraph one with the following:

         A new class of students begins the four–year professional program each fall semester. Applications for admission and related materials must be received by the deadline as specified by the Veterinary College Application Service (VMCAS).

      (2) Replace paragraph two with the following:

         Factors considered by the Admissions Committee in determining an applicant’s relative competitive position are: (1) Academic performance, with a minimum last-3-semester grade point average (GPA) in combination with a minimum pre-requisite GPA of 3.0 is required for an application to receive review; (2) file review of non-academic experiences and attributes fitting to the values of the college; and (3) multiple mini interviews, by invitation.
(3) Under the list of Science Prerequisite Courses delete the following:

- Genetics
- Eukaryotic Cell Biology
- Microbiology with laboratory
- Animal Nutrition (General or Human Nutrition)

Add the following:

- Advanced Biology (3 credit minimum) such as Cell Biology, Physiology, Neurobiology, Immunology, Genetics, Microbiology, or Histology

(4) In both the Production Medicine Scholars Admission Pathway and Veterinary Scholars Admission Pathway delete the reference to ‘GRE scores’.

b. Under the heading Requirements for the Doctor of Veterinary Medicine Degree in Veterinary Medicine make the following changes:

(1) Under the heading REQUIRED CLERKSHIPS delete the following courses and change the total credits from ‘33’ to ‘30’:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCS 621</td>
<td>Equine Practice Clerkship</td>
<td>3</td>
</tr>
<tr>
<td>LCS 631</td>
<td>Food Animal Practice Clerkship</td>
<td>3</td>
</tr>
</tbody>
</table>

(2) Under the heading ELECTIVE CLERKSHIPS delete the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCS 679</td>
<td>Food Animal Production Medicine I</td>
<td>6</td>
</tr>
<tr>
<td>SCS 655</td>
<td>Clinical Surgical Oncology Clerkship</td>
<td>3</td>
</tr>
</tbody>
</table>

Add the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCS 621</td>
<td>Practice Based Ambulatory Clerkship</td>
<td>3</td>
</tr>
<tr>
<td>LCS 679</td>
<td>Food Animal Production Medicine I</td>
<td>3</td>
</tr>
</tbody>
</table>

Effective Spring 2018.
PART II - NEW COURSES AND CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

ANR 410  Integrated Learning Transitions
Fall of every year. Spring of every year. 3(3-0) P: ANR 310 R: Open to juniors or seniors.
Synthesis and analysis of structured experiences in community systems. Personal and interpersonal development, personal and professional integrity, communication competence, and critical and reflective thinking.

Effective Fall 2015 Effective Fall 2016

COLLEGE OF NATURAL SCIENCE

BMB 516  Metabolic Biochemistry: Nutrients and Products
Summer of every year. 1(9-8) R: Open to students in the College of Osteopathic Medicine. Not open to students with credit in BMB 515 or BMB 527.
NEW Basic biochemical principles and terminology; overview of metabolism of biomolecules of importance to medical biology and human pathophysiology.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2018

BMB 528  Molecular Biology and Medical Genetics
Fall of every year. 2(28-5) R: Open to students in the College of Osteopathic Medicine. Not open to students with credit in BMB 515 or BMB 527. C: PSL 539 concurrently and MMG 531 concurrently and MMG 532 concurrently and PHM 564 concurrently.
NEW Basic principles of molecular biology and human medical genetics; storage and expression of genetic information; transmission of genetic information to progeny.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2018

BS 181H  Honors Cell and Molecular Biology
Spring of every year. 3(3-0) Interdepartmental with Biochemistry and Molecular Biology and Lyman Briggs and Microbiology and Molecular Genetics. P: (CEM 141 or concurrently) or (CEM 151 or concurrently) or (CEM 181H or concurrently) or (LB 171 or concurrently) Not open to students with credit in BS 161 or LB 145. Not open to students with credit in LB 145.
Physicochemical and molecular organization of cells as the unifying framework for genetics, evolution, and the social relevance of biology.
SA: BS 149H, BS 111
Effective Fall 2013 Effective Summer 2017

IBIO 368  Zoo Animal Biology and Conservation
Summer of every year. 3(3-0) Interdepartmental with Animal Science and Fisheries and Wildlife and Landscape Architecture. P: BS 162 or approval of department RB: Previous work in biology
NEW Captive animal biology including illustrated examples of care, behavioral welfare and conservation work.
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 2018

MTH 840  Chaos and Dynamical Systems
Spring of every year. 3(3-0) RB: (MTH 441 and MTH 320 and MTH 414) and some experience with mathematical software such as Mathematica or Matlab.
Chaotic or random motions in differential and difference equations.
DELETE COURSE
Effective Summer 2018
MTH 864  Geometric Topology  
Spring of every year. 3(3-0) RB: MTH 421  
Topology of surfaces and higher dimensional manifolds, studied from combinatorial,  
algebraic or differential viewpoints.  
SA: MTH 464  
DELETE COURSE  
Effective Summer 2018

MTH 880  Combinatorics  
Fall of every year. 3(3-0) RB: MTH 411 or MTH 482  
Enumerative combinatorics, recurrence relations, generating functions, asymptotics,  
applications to graphs, partially ordered sets, generalized Moebius inversions,  
combinatorial algorithms.  
**Effective Fall 1995 Effective Fall 2018**

MTH 881  Graph Theory  
Spring of even years. 3(3-0) RB: MTH 880  
Graph theory, connectivity, algebraic and topological methods. Networks, graph  
algorithm, Hamiltonian and Eulerian graphs, extremal graph theory, random graphs.  
Basic concepts in graph theory, connectivity, algebraic and topological methods.  
Networks, graph algorithms, Hamiltonian and Eulerian graphs, extremal graph theory,  
random graphs.  
**Effective Fall 1995 Effective Fall 2018**

MTH 882  Combinatorics II  
Spring of every year. 3(3-0) P: MTH 880  
NEW  
Algebraic combinatorics including symmetric functions, group actions, and cluster  
algebras, Geometric combinatorics including shellability, discrete Morse functions, and  
polytopes. Extremal combinatorics including Ramsey Theory and Sperner Theory.  
**Effective Spring 2019**

NSC 102  Preprofessional Freshman Seminar  
Fall of every year. Spring of every year. 1(1-0) R: Open to freshmen or approval of department.  
R: Open to freshmen in the Predental Major or in the Premedical Major or in the Preoptometry Major  
or approval of department.  
Overview of human health care professions with emphasis on academic and nonacademic  
undergraduate preparation, campus resources, communication and computer skills, and  
collaborative learning.  
**Effective Fall 2014 Effective Fall 2018**

NEU 302  Introduction to Neuroscience II  
Spring of every year. 3(3-0) P: NEU 301 RB: PSY 101  
R: Open to undergraduate students in the Program in Neuroscience.  
R: Open to undergraduate students in the Lyman Briggs College or in the College of Natural Science or in the Program in Neuroscience.  
Survey of brain-based behavioral and cognitive systems and related human diseases.  
**Effective Fall 2014 Effective Spring 2017**

NEU 420  Neurobiology of Disease  
Spring of every year. 3(3-0) P: NEU 301 and NEU 302  
R: Open to undergraduate students in the Program in Neuroscience.  
R: Open to undergraduate students in the Lyman Briggs College or in the College of Natural Science or in the Program in Neuroscience.  
Genetic, molecular, cellular, systems, and behavioral abnormalities that contribute to the  
manifestation of neurologic and psychiatric diseases and disorders that affect the nervous  
system.  
**Effective Fall 2014 Effective Spring 2017**
PLB 441  Plant Ecology
Fall of every year. 3(3-0) P: (BS 162 or LB 144 or ZOL 355 or BS 182H) and completion of Tier I writing requirement 
P: (BS 162 or LB 144 or IBIO 355 or BS 182H) and completion of Tier I writing requirement
SA: BOT 441
Effective Fall 2014  Effective Fall 2017

COLLEGE OF OSTEOPATHIC MEDICINE

FCM 620  Core Family Medicine Clerkship
Fall of every year. Spring of every year. Summer of every year. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.
Clinical exposure in the area of family medicine.
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 4 semesters after the end of the semester of enrollment. 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 2014  Effective Summer 2017

FCM 621  Family Medicine Specialty Rotation
Fall of every year. Spring of every year. Summer of every year. 1 to 24 credits. A student may earn a maximum of 51 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.
Clinical exposure in osteopathic family medicine subspecialty rotations. Proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; 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 4 semesters after the end of the semester of enrollment. 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 2014  Effective Summer 2017

FCM 622  Core Family Medicine Sub-Internship
Fall of every year. Spring of every year. Summer of every year. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course. P: FCM 620 R: Open to graduate-professional students in the College of Osteopathic Medicine.
Clinical exposure in osteopathic family medicine. Proficiency in advanced motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; 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 4 semesters after the end of the semester of enrollment. 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 2014  Effective Summer 2017
FCM 640  Principles of Family Medicine
Fall of every year. Spring of every year. Summer of every year. 1(0-4) 1 credit. P: OST 553 or concurrently RB: Successful completion of Semesters 1, 2, 3 and 4 of the graduate-professional program in the College of Osteopathic Medicine R: Open to graduate-professional students in the College of Osteopathic Medicine.
Preceptorship experience in family medicine taught by faculty and clinical preceptors at multiple sites through discussion and hands-on experience.
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 2018

FCM 650  Principles of Family Medicine - Intensive
Principles of Family Medicine
Fall of every year. Spring of every year. Summer of every year. 1(0-40) 1(2-40) A student may earn a maximum of 2 credits in all enrollments for this course. P: OST 553 or concurrently R: Open to graduate-professional students in the College of Osteopathic Medicine.
One-week intensive preceptorship in family medicine. Preceptorship experience in family medicine taught by faculty and clinical preceptors at multiple sites through lecture and hands-on experience.
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 2015 Effective Summer 2018

OST 556  Pediatrics I
Spring of every year. 1(1-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.
NEW This semester offering of the pediatrics course will introduce the students to the field of pediatrics. The first portion of PEDS I will focus on the normal growth and development of children from birth to 18 years. The second portion of this semester will focus on conditions of the nervous, musculoskeletal, endocrine and genitourinary systems that affect children.
Request the use of the Pass-No Grade (P-N) system.
Effective Spring 2018

OST 557  Pediatrics II
Summer of every year. 1(1-0) R: Open to graduate-professional students in the College of Osteopathic Medicine.
NEW This semester of the pediatrics curriculum focuses on the normal structure, function and pathologies of the integumentary, reproductive, and gastrointestinal systems as they relate to children.
Request the use of the Pass-No Grade (P-N) system.
Effective Summer 2018

OST 558  Pediatrics III
Fall of every year. 1(1-0) R: Open to graduate students in the College of Osteopathic Medicine.
NEW PEDS III focuses on the the normal structure, function and pathologies of the behavioral, cardiovascular, hematopoietic and respiratory systems as they relate to the pediatric population. Ethical considerations in pediatrics will also be highlighted.
Request the use of the Pass-No Grade (P-N) system.
Effective Fall 2018

OST 583  Geriatrics
Spring of every year. 1(1-0) R: Open to graduate students in the College of Osteopathic Medicine.
NEW Focus on normal aging, structure, function and pathologies of older persons greater than 65.
Request the use of the Pass-No Grade (P-N) system.
Effective Spring 2019
PED 600  Core Pediatrics Clerkship
Fall of every year. Spring of every year. Summer of every year. 1 to 18 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.
Practical clinical exposure in the area of pediatrics.
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 4 semesters after the end of the semester of enrollment.
Effective Summer 2014 Effective Summer 2018

PED 601  Pediatrics Specialty Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 24 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Osteopathic Medicine.
Clinical exposure in specialties of Pediatrics. Proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; 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 4 semesters after the end of the semester of enrollment.
Effective Spring 2014 Effective Summer 2017

COLLEGE OF VETERINARY MEDICINE

LCS 621  Practice Based Ambulatory Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Supervised, off-campus experience in an assigned veterinary practice. Regular equine and food animal farm calls. After-hours emergencies. Veterinary practice management.
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 2016 Effective Spring 2018

VM 611  Veterinary Externship
Fall of every year. Spring of every year. Summer of every year. 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. A student may earn a maximum of 18 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Clinical or research experience in an off-campus 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 1 semester after the end of the semester of enrollment.
Effective Summer 2013 Effective Spring 2018