PART I – NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

1. Request to change the requirements for the Agricultural Technology Certificate in Agricultural Industries in The Institute of Agricultural Technology.
   a. Under the heading Requirements for Agricultural Industries make the following changes:
      (1) In item 1. add the following courses and change the total credits from '31 to 34' to '28 to 31':
         - CSS 126 Introduction to Weed Management 2
         - CSS 226L Weed Science Laboratory 1
      Delete the following courses:
         - CSS 120 Issues in Food and Agriculture 3
         - CSS 288 Principles of Weed Management 3
      (2) Add the following new item 2. and renumber items 2., 3., and 4. respectively to 3., 4., and 5.:
         Two of the following courses (4 to 6 credits):
         - CSS 120 Issues in Food and Agriculture 3
         - CSS 135 Crop Scouting and Investigation 3
         - CSS 151 Seed and Grain Quality 2
         - CSS 201 Forage Crops 3
         - CSS 212 Advanced Crop Production 2
         - CSS 222 New Horizons in Biotechnology 2
      (3) Change item 2. to 'Both of the following courses (6 credits):'.
      (4) Change the credits in item 5. from ‘13’ to ‘5 to 10’.

   Effective Spring 2019.

2. Request to change the requirements for the Agricultural Technology Certificate in Agricultural Operations in The Institute of Agricultural Technology.
   b. Under the heading Requirements for Agricultural Operations make the following changes:
      (1) Add the following statement:
         Students must complete 60 credits from the following:
      (2) In item 1. delete the following course and change the total credits from ‘29’ to ‘28’:
         - CSS 135 Crop Scouting and Investigation 3
      Add the following course:
         - CSS 126 Introduction to Weed Management 2
      (3) Delete items 2. and 3.
      (4) Add the following items 2. and 3.:
2. Complete a minimum of 6 elective credits in the College of Agriculture and Natural Resources as approved by the program coordinator in the Institute of Agricultural Technology.

3. Complete 26 credits of additional course work through the College of Agriculture and Natural Resources, a community college partner (Delta, College, Glen Oaks Community College, Kellogg Community College, Monroe Community College, Montcalm Community College, Muskegon Community College, Southwestern Michigan College, West Shore Community College) or an approved transferring institution. All course work must be approved by the program coordinator in the Institute of Agricultural Technology.

A minimum of 50% of the credits must be completed through the College of Agriculture and Natural Resources.

Effective Spring 2019.

3. Request to change the requirements for the Agricultural Technology Certificate in Fruit and Vegetable Crop Management in The Institute of Agricultural Technology.

a. Under the heading Requirements for Fruit and Vegetable Crop Management make the following changes:

(1) Add the following statement:

Students must complete 60 credits from the following:

(2) In item 1. add the following courses and change the total credits from '18' to '23':

ABM 130 Farm Management I 3
CSS 126 Introduction to Weed Management 2

(3) Delete items 2. and 3.

(4) Add the following items 2. and 3.:

2. Complete a minimum of 7 elective credits in the College of Agriculture and Natural Resources as approved by the program coordinator in the Institute of Agricultural Technology.

3. Complete 30 credits of additional course work through the College of Agriculture and Natural Resources, a community college partner (Montcalm Community College, Muskegon Community College, Northwestern Michigan College, Southwestern Michigan College, Wayne County Community College District, West Shore Community College) or an approved transferring institution. All course work must be approved by the program coordinator in the Institute of Agricultural Technology.

A minimum of 50% of the credits must be completed through the College of Agriculture and Natural Resources.

Effective Spring 2019.
4. Request to change the requirements for the **Agricultural Technology Certificate** in **Fruit, Vegetable, and Organic Horticulture Management** in The Institute of Agricultural Technology.
   
a. Under the heading **Requirements for Fruit, Vegetable, and Organic Horticulture Management** make the following changes:
   
   (1) In item 2. add the following courses:
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 126</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L</td>
<td>1</td>
</tr>
<tr>
<td>CSS 226L Weed Management</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L Weed Science Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
   
   Effective Spring 2019.

5. Request to change the requirements for the **Agricultural Technology Certificate** in **Landscape Management** in The Institute of Agricultural Technology.
   
a. Under the heading **Requirements for Landscape Management** make the following changes:
   
   (1) Add the following statement:
   
   Students must complete 60 credits from the following:
   
   (2) In item 1. add the following course and change the total credits from ‘25’ to ‘27’:
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 126</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L</td>
<td>1</td>
</tr>
<tr>
<td>CSS 226L Weed Management</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L Weed Science Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
   
   (3) Delete items 2. and 3.

   (4) Add the following items 2. and 3.:

   2. Complete a minimum of 3 elective credits in the College of Agriculture and Natural Resources as approved by the program coordinator in the Institute of Agricultural Technology.

   3. Complete 30 credits of additional course work through the College of Agriculture and Natural Resources, a community college partner (Montcalm Community College, Muskegon Community College, Northwestern Michigan College, Southwestern Michigan College, Wayne County Community College District) or an approved transferring institution. All course work must be approved by the program coordinator in the Institute of Agricultural Technology.

   A minimum of 50% of the credits must be completed through the College of Agriculture and Natural Resources.

   Effective Spring 2019.

6. Request to change the requirements for the **Agricultural Technology Certificate** in **Landscape and Nursery Management** in The Institute of Agricultural Technology.

   a. Under the heading **Requirements for Landscape and Nursery Management** make the following changes:

   (1) Add the following statement:

   Students must complete 48 credits from the following:

   (2) In item 2. add the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 126</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L</td>
<td>1</td>
</tr>
<tr>
<td>CSS 226L Weed Management</td>
<td>2</td>
</tr>
<tr>
<td>CSS 226L Weed Science Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HRT 220</td>
<td>3</td>
</tr>
<tr>
<td>HRT 220 Annual and Aquatic Landscape Plants</td>
<td>3</td>
</tr>
</tbody>
</table>

   Effective Spring 2019.
7. Request to change the requirements for the Agricultural Technology Certificate in Turfgrass Management-Golf Course Emphasis in the Institute of Agricultural Technology.

a. Under the heading Requirements for Turfgrass Management-Golf Course Emphasis make the following changes:

(1) Add the following statement:
Students must complete 54 credits from the following:

(2) In item 1. add the following courses:

CSS 126 Introduction to Weed Management 2
CSS 226L Weed Science Laboratory 1

Delete the following course:
CSS 288 Principles of Weed Management 3

Effective Spring 2019.


a. Under the heading Requirements for Turfgrass Management-Sports and Commercial Turf Management Emphasis make the following changes:

(1) Add the following statement:
Students must complete 54 credits from the following:

(2) In item 1. add the following courses:

CSS 126 Introduction to Weed Management 2
CSS 226L Weed Science Laboratory 1

Delete the following course:
CSS 288 Principles of Weed Management 3

(3) In item 1., change the credits of AT 293 from ‘3 to 6’ to ‘3’.

Effective Spring 2019.

9. Request to change the requirements for the Agricultural Technology Certificate in Viticulture in The Institute of Agricultural Technology.

a. Under the heading Requirements for Viticulture make the following changes:

(1) Add the following statement:
Students must complete 60 credits from the following:

(2) In item 1. add the following course and change the total credits from ‘21’ to ‘23’:

CSS 126 Introduction to Weed Management 2

(3) Delete item 2.
(4) Add the following items 2. and 3.:

2. Complete a minimum of 7 elective credits in the College of Agriculture and Natural Resources or VESTA as approved by the program coordinator in the Institute of Agricultural Technology.

3. Complete 30 credits of additional course work through the College of Agriculture and Natural Resources, Northwestern Michigan College or an approved transferring institution. All course work must be approved by the program coordinator in the Institute of Agricultural Technology.

A minimum of 50% of the credits must be completed through the College of Agriculture and Natural Resources.

Effective Spring 2019.
PART II - NEW COURSES AND CHANGES

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

BE 849  Quantitative Human Health Risk Modeling and Analysis for Microbial Stressors
Microbial Risk Modeling and Analysis
Fall of even years. 3(2-2) P: STT 421 or STT 464 or (STT 814 or concurrently) or approval of
department RB: probability theory, mathematical modeling covered in the engineering and
quantitative sciences. Background in toxicology, microbiology, food safety, and/or public health.
RB: Integral calculus, intermediate statistics, probability through distribution functions. Engineering,
environmental science, toxicology, microbiology, food safety, and/or public health.
Characterization of human health risk from exposures to environmental stressors.
Development of empirical and statistical models for health effects and exposure analysis.
Probabilistic risk characterization, uncertainty and sensitivity analysis. Problem based
critical evaluation of risk-based environmental decisions. Characterization, analysis, and
modeling of human health risk from exposures to microbial contaminants. Applications in
food safety, water quality, public health and environmental science and policy.
Effective Spring 2016 Effective Fall 2018

FOR 404
FOR 340  Forest Ecology
Fall of every year. 3(3-0) P: ((CSS 210) and completion of Tier I writing requirement) and (PLB 105
or BS 162 or LB 144) RB: ZOL 355 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 2013 Effective Fall 2019

FOR 404L
FOR 340L  Forest Ecology Laboratory
Fall of every year. 1(0-3) P: ((CSS 210) and completion of Tier I writing requirement) and (FOR 404
or concurrently) and (PLB 105 or BS 162 or LB 144) P: ((CSS 210) and completion of Tier I writing
requirement) and (FOR 340 or concurrently) and (PLB 105 or BS 162 or LB 144) RB: ZOL 355 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. Weekend field trips required.
SA: FOR 404L
Effective Fall 2013 Effective Fall 2019

FOR 472
FOR 372  Ecological Monitoring and Data Analysis
Fall of every year. 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)
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 Fall 2013 Effective Spring 2020
FOR 462  Forest Resource Economics and Management
Fall of every year. Spring of every year. 4(3-2) P: ((EC 201) and completion of Tier I writing requirement) and (MTH 124 or MTH 132) and (STT 201 or STT 224 or STT 231 or STT 421) R: Not open to freshmen or sophomores.
Economic concepts, analytical techniques, computer simulation/forecasting models, and geographic information systems to assess economic and ecological impacts of resource management decisions at a range of spatial and temporal scales. Geospatial tools, multiple ownerships. Individual forest stands to complex multi-use landscape scales.
Effective Fall 2013 Effective Spring 2020

HRT 860  Scientific Writing: Workshop
Spring of every year. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to graduate students.
NEW Development of scientific writing skills through discussion and critique of students’ writing in peer response workshop groups.
Request the use of the Pass-No Grade (P-N) system.
Effective Spring 2019

COLLEGE OF ENGINEERING

ME 881  Cardiovascular Mechanics
Fall of every year. 3 credits. RB: (ME 222 or ME 332) or Undergraduate level of solid mechanics or fluid mechanics
NEW This course focuses on solid and fluid mechanics of the cardiovascular system, with emphasis placed on their relations to cardiovascular diseases and clinical treatments. Concepts related to stress-mediated growth and remodeling (G&R) in the cardiovascular system will also be discussed. Computational modeling tools for simulating hemodynamics and G&R in patient-specific geometry will be introduced.
Effective Fall 2018

COLLEGE OF HUMAN MEDICINE

EPI 890  Independent Study in Epidemiology and Biostatistics
Fall of every year. Spring of every year. Summer of every year. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: EPI 810 R: Open to master’s students in the Department of Epidemiology and Biostatistics. Approval of department.
Independent study in areas relevant to epidemiology such as population genetics.
Independent study in areas relevant to epidemiology and biostatistics.
Effective Fall 2014 Effective Spring 2018

HM 511  Infectious Disease and Immunology
Fall of every year. 3 credits. RB: Not open to first year students. R: Open only to graduate-professional students in College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based small group experiences.
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.
DELETE COURSE
Effective Fall 2018
PART II - NEW COURSES AND CHANGES – continued - 8

September 13, 2018

HM 513  Neurological Domain
Fall of every year. 3(3-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based learning small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 515  Cardiovascular Domain
Spring of every year. 4(4-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based learning small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 516  Disorders of Thought, Emotion, and Behavior Domain
Fall of every year. 4(4-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic science applied to clinically relevant situations. Problem-based learning small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 517  Musculoskeletal Domain
Fall of every year. 2(2-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic science applied to patient cases. Problem-based learning small group teaching.
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.
DELETE COURSE
Effective Fall 2018

HM 525  Pulmonary Domain
Spring of every year. 3(3-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based learning small group experiences.
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.
DELETE COURSE
Effective Fall 2018
PART II - NEW COURSES AND CHANGES – continued - 9
September 13, 2018

HM 526  Urinary Tract Domain
Spring of every year. 3(3-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based learning small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 527  Digestive Domain
Spring of every year. 3 credits. RB: Block I. Not open to first year students. R: Open only to graduate-professional students in College of Human Medicine.
Basic sciences applied to clinically relevant situations. Problem-based small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 528  Metabolic and Endocrine and Reproductive Domain
Spring of every year. 3 credits. RB: Block I. Not open to first year students. R: Open only to graduate-professional students in College of Human medicine.
Basic sciences applied to clinically relevant situations. Problem-based small group experiences.
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.
DELETE COURSE
Effective Fall 2018

HM 531  Clinical Skills I
Fall of every year. 2(1-2) R: Open only to graduate-professional students in the College of Human Medicine.
Basic principles of doctor-patient relationship, core interviewing techniques. Exposure to clinical arena.
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 6 semesters after the end of the semester of enrollment.
DELETE COURSE
Effective Fall 2018

HM 532  Clinical Skills II
Spring of every year. 2(1-2) RB: HM 531 R: Open only to graduate-professional students in the College of Human Medicine.
Adult screening physical examination and its integration with data-gathering skills.
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 6 semesters after the end of the semester of enrollment.
DELETE COURSE
Effective Fall 2018
HM 533  Clinical Skills III  
Summer of every year. 2(2-0) RB: HM 532 R: Open to graduate-professional students in the College of Human Medicine.  
Age specific screening examinations and integration with data-gathering skills. Skill-oriented content will be supplemented with theoretical material covering the human lifespan.  
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.  
DELETE COURSE  
Effective Fall 2018

HM 534  Clinical Skills IV  
Fall of every year. 2(1-2) RB: HM 533 R: Open only to graduate-professional students in College of Human Medicine.  
Advanced interviewing and physical examination skills. Communication of patient-related data with the patient and other health professionals, orally and in writing. Problem solving.  
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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018

HM 535  Clinical Skills V  
Spring of every year. Summer of every year. 2(1-2) RB: HM 535 R: Open only to graduate-professional students in College of Human Medicine.  
Advanced interviewing and physical examination skills. Oral case presentations and written medical records. Introductory problem solving skills.  
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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018

HM 539  Hematopoietic/Neoplasia Domain  
Fall of every year. 4(4-0) RB: Not open to first year students. R: Open to graduate-professional students in the College of Human Medicine.  
Learn and apply advanced concepts of the basic sciences to clinically relevant situations. Problem-based learning small group experiences.  
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.  
DELETE COURSE  
Effective Fall 2018

HM 546  The Social Context of Clinical Decisions  
Fall of every year. 1(1-0) RB: Completion of Block I requirements. R: Open only to graduate-professional students in College of Human Medicine.  
Social perspectives on medicine and medical care.  
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.  
DELETE COURSE  
Effective Fall 2018
HM 547  The Social Context of Clinical Decisions II  
Spring of every year. 2(2-0) RB: HM 546 R: Open only to graduate-professional students in College of Human Medicine.  
- Issues and concepts related to social and professional responsibilities of physicians.  
- 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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018

HM 548  Medical Humanities Seminar  
Spring of every year. 2(2-0) RB: HM 547 R: Open only to graduate-professional students in College of Human Medicine.  
- Issues related to the humanities and human values pertinent to medical practice.  
- 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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018

HM 561  Basic Principles of Pathology  
Spring of every year. 2 credits. R: Open to students in the College of Human Medicine.  
- Fundamental pathologic processes. Clinical applications.  
- 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.  
SA: PTH 542  
DELETE COURSE  
Effective Fall 2018

HM 571  Integrative Clinical Correlations I  
Fall of every year. 2(2-0) RB: (ANT 551 or concurrently) and (BMB 521 or concurrently) and (PSL 501 or concurrently) R: Open only to graduate-professional students in the College of Human Medicine.  
- Correlation of the principles of the basic biological and behavioral sciences with disciplines of clinical medicine using case presentations.  
- 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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018

HM 572  Integrative Clinical Correlations II  
Spring of every year. 1(1-0) RB: (HM 571 or concurrently) and (ANTR 552 or concurrently) and (ANTR 562 or concurrently) and (PTH 542 or concurrently) R: Open only to graduate-professional students in the College of Human Medicine.  
- Correlation of the principles of the basic biological and behavioral sciences within the disciplines of clinical medicine using case presentations.  
- 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 6 semesters after the end of the semester of enrollment.  
DELETE COURSE  
Effective Fall 2018
HM 581  Mentor Program
Fall of every year. 1(0-2) R: Open only to graduate-professional students in the College of Human 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 6 semesters after the end of the semester of enrollment.
DELETE COURSE
Effective Fall 2018

HM 582  Mentor Program Year II
Fall of every year. Spring of every year. 1(0-2) A student may earn a maximum of 2 credits in all enrollments for this course. R: Open to graduate-professional students in the College of Human Medicine.

Continuing exploration of the dimensions of being a physician. Professional skills needed to interact with patients and medical workers. Current trends.
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.
DELETE COURSE
Effective Fall 2018

ANTR 685  Directed Study in Clinical Prosection
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: ANTR 510 or ANTR 551 or ANTR 510 or ANTR 551 or HM 556 RB: Open to Clerkship Students in the College of Human Medicine and College of Osteopathic Medicine. R: Open to human medicine students in the College of Human Medicine and open to osteopathic medicine students in the College of Osteopathic Medicine. Approval of department.

Anatomical prosection and body-region specific pathologies.
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 2014 Effective Spring 2018

RAD 553  Introduction to Radiology
Spring of every year. 1(1-0) R: Open only to graduate-professional students in the Colleges of Human Medicine and the College of Osteopathic Medicine or approval of department.

Principles of medical diagnostic radiology: means of generating diagnostic images, and anatomical and physiological changes that result in such images.
DELETE COURSE
Effective Summer 2018

SUR 609  Otolaryngology Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.

Common otolaryngologic disorders, emergencies. Diagnosis and treatment. Primary physician’s judgments about 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 2 semesters after the end of the semester of enrollment.
Effective Summer 2018 Effective Fall 2018
SUR 610  Plastic Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Principles of wound healing and tissue repair. Indications and applications of plastic surgery 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 Summer 2018 Effective Fall 2018

SUR 611  Urology Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Demonstration of clinical manifestations of genito-urinary disease, investigative methods and techniques of diagnosis and management. Urologic emergencies and performance of basic urologic skills. 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 Fall 2018

SUR 612  General Surgery Sub-Internship
Fall of every year. Spring of every year. Summer of every year. 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P: SUR 608 or (SUR 608 and SUR 642) R: Open to graduate-professional students in the College of Human Medicine. Exposure to wide range of surgical problems as an integral part of the surgical team. 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 2006 Effective Fall 2018

SUR 613  Orthopedic Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Diagnosis and management skills in common orthopedic problems. Orthopedic emergencies. 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 Fall 2018

SUR 614  Neurosurgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Problems related to common emergent and elective neurosurgery involving the brain, spine, and peripheral nerves. Neurological examinations, diagnostic methods. 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 Fall 2018
SUR 615  Ophthalmology Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 R: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Medical and surgical treatment of eye diseases. Clinical experiences include private office practice, surgical observations, pre-and post-operative care.
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 Fall 2018

SUR 616  Thoracic Surgery Clerkship
Cardiothoracic Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 R: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Problem solving in thoracic medicine and surgery. Pulmonary physiology. Diagnostic tools and tests, and indications for surgical 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 Summer 2018 Effective Fall 2018

SUR 617  Trauma-Critical Care Clerkship
Critical Care Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or HM 556 P: SUR 608 or SUR 641 R: Open to graduate-professional students in the College of Human Medicine.
Focused experience in trauma and critical care as part of a surgical team at a Level One Trauma Center.
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 Fall 2018

SUR 618  Anesthesia Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 R: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Common anesthetic agents and procedures. Operative and post-operative effects, complications, patient risk, cost. Performing anesthetic procedures under faculty supervision.
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 Fall 2018

SUR 619  Sub-specialty Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 R: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Surgical domains not covered in other clerkship experiences in which students desire further exposure.
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 Fall 2018
SUR 622  Pediatric Orthopedic Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evaluation and management strategies for common pediatric orthopedic maladies.
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 Fall 2018

SUR 623  Sports Medicine Orthopedic Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evaluation and management strategies for common sports medicine maladies presenting to the orthopedic surgeon.
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 Fall 2018

SUR 624  Vascular Surgery Clerkship
Fall of every year. Spring of even years. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evaluation, management and knowledge of vascular surgical conditions.
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 Fall 2018

SUR 625  Hand Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evaluation, management and knowledge of hand surgery conditions.
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 Fall 2018

SUR 626  Pediatric Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine.
Evaluation, management and knowledge of general pediatric surgical conditions.
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 Fall 2018
SUR 627 Burns Clerkship
Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Evaluation, management and knowledge of burns in trauma patients. 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 Fall 2018

SUR 628 Trauma Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Evaluation, management and knowledge of trauma in trauma patients. 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 Fall 2018

SUR 629 Colorectal Surgery Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Evaluation, management and knowledge of colorectal surgical conditions. 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 Fall 2018

SUR 630 Surgical Wound Care Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Evaluation, management and knowledge of wound care in surgical patients. 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 Fall 2018

SUR 631 Surgical Oncology Clerkship
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641 RB: SUR 608 or HM 556 R: Open to graduate-professional students in the College of Human Medicine. Evaluation, management and knowledge of surgical oncology conditions. 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 Fall 2018
SUR 632  Surgical Nutrition Clerkship  
Fall of every year. Spring of every year. Summer of every year. 3 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course. P: SUR 608 or SUR 641  RB: SUR 608 or HM 556  R: Open to graduate-professional students in the College of Human Medicine.  
Evaluation, management and knowledge of nutrition in critically-ill surgical patients.  
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 Fall 2018

LYMAN BRIGGS COLLEGE

LB 171  Principles of Chemistry I  
Fall of every year. Spring of every year. 4(4-0)  P: MTH 114 or (MTH 116 or concurrently) or (MTH 132 or concurrently) or (MTH 133 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently) or (LB 119 or concurrently) or (LB 117 or concurrently)  R: Open to students in the Lyman Briggs College. Not open to students with credit in CEM T4T or CEM 151 or CEM 181H.  
C: LB 171L concurrently.  
Stoichiometry, quantum mechanics and interactions of light with matter, periodic trends, Lewis dot structures, molecular structure, polarity and intermolecular forces, valence bond theory, introduction to organic chemistry, enthalpy and heat transfer.  
SA: LBS 165, LBS 171  
Effective Spring 2014 Effective Summer 2019

COLLEGE OF NATURAL SCIENCE

GLG 813  Hillslope Hydrology  
Watershed Hydrology  
Spring of every year. 4(3-1)  
Advanced course on Hillslope Hydrology covering the physical, chemical, and isotopic characteristics of river runoff generation from the pore to the catchment scale. Advanced course on Watershed Hydrology covering the physical, chemical, and isotopic characteristics of river runoff generation from the pore to the catchment scale.  
Effective Fall 2017 Effective Summer 2019

GLG 850  From Research to Publication  
Fall of every year. 3(3-0)  RB: Experience with literature reviews and/or empirical research. Experience with courses requiring extensive writing. R: Open to graduate students and open to juniors or seniors.  
Approval of department.  
NEW  
An overview of the process for moving research from data to publication including: ethics in publishing, identifying appropriate journals, writing manuscripts, and the publication process.  
Effective Fall 2018

COLLEGE OF NURSING

NUR 330  Health Assessment and Nursing Therapeutics  
Fall of every year. Spring of every year. Summer of every year. 7(3-10)  P: NUR 300  R: Open to students in the Nursing Major.  
C: PHM 350 concurrently and NUR 340 concurrently.  
Normal physiology and pathophysiology. Theories of growth and development across the life span. Therapeutic communication and physical, psychosocial, cultural and spiritual assessment techniques and mastery of basic nursing therapeutics. Understanding the significance of abnormal physiological health transitions of the adult.  
DELETE COURSE  
Effective Summer 2018
NUR 360  Acute Nursing Care of Adults and Older Adults  
Fall of every year. Spring of every year. 8(4-12) P: NUR 330 and NUR 340 C: NUR 370 concurrently.  
Integration of concepts and theories into beginning level Nursing practice. Examination of dynamic interrelationship between professional, scholarly nursing practice, and the health and wellness of diverse persons and populations across the life span.  
DELETE COURSE  
Effective Summer 2018

NUR 370  Mental Health and Psychiatric Nursing  
Fall of every year. Spring of every year. 4(2-6) P: NUR 330 and NUR 340 C: NUR 360 concurrently.  
Extension of foundational social science concepts into nursing therapeutics aimed at mental health and the care of persons with mental illnesses. Medication and non-medication interventions, group interventions, and therapeutic environments.  
DELETE COURSE  
Effective Summer 2018

NUR 423  Transitional Needs in Adults with Intellectual and/or Developmental Disabilities (IDD)  
Fall of every year. Summer of every year. 3(3-0) R: Open to students.  
NEW  
To analyze the complex transitional needs of adults with intellectual and/or developmental disabilities.  
Effective Spring 2019

NUR 435  Nursing Care of the Childbearing Family  
Fall of every year. Spring of every year. 4(2-6) P: NUR 360 and NUR 370 C: NUR 440 concurrently.  
Health promotion and risk assessment of individuals and families during pregnancy and birth. Therapeutic communication and assessment skills for providing holistic care to culturally diverse childbearing families during the prenatal, intrapartum, and postpartum periods. Caring for mother and baby in utero and after birth.  
DELETE COURSE  
Effective Summer 2018

NUR 440  Nursing Care of Children, Adolescents and Their Families  
Fall of every year. Spring of every year. 4(2-6) P: NUR 360 and NUR 370 C: NUR 435 concurrently.  
Theoretical concepts and clinical application of nursing care of infants, children, and adolescents in varied health care and community settings. Synthesis of pathophysiologic, pharmacologic, and therapeutic concepts. Family-centered care of children within developmental, cultural, ethnic, religious, and social structures.  
DELETE COURSE  
Effective Summer 2018

NUR 450  Integrative Seminar  
Fall of every year. Spring of every year. 2(4-0) C: NUR 435 concurrently or NUR 440 concurrently.  
Integration of concepts and theories into intermediate-level nursing practice. Dynamic interrelationship between professional, evidence–based practice, and health and wellness throughout the lifespan.  
DELETE COURSE  
Effective Summer 2018

NUR 480  Role Transition Seminar  
Fall of every year. Spring of every year. Summer of every year. 3(6-0) P: (NUR 435 and NUR 440 and NUR 450) and completion of Tier I writing requirement C: NUR 460 concurrently or NUR 470 concurrently.  
Advanced-level evidence-based practice for transition to entry-level nursing. Ethical decision and policy-making at the organization level.  
DELETE COURSE  
Effective Summer 2018
VM 834  Current Issues in Food Safety
Fall of every year. Spring of every year. Summer of every year. 1 to 6 credits. 1 to 9 credits. A student may earn a maximum of 6 credits in all enrollments for this course. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to graduate students in the College of Veterinary Medicine or in the Department of Large Animal Clinical Sciences or in the Food Safety Major or approval of college.

Current issues in food safety including: allergen control in the manufacturing setting, microbial control in the manufacturing setting, good manufacturing practices, ingredient safety, preventative control, produce food safety. Other topics as needed.
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 2017 Effective Summer 2018*