AGENDA
FACULTY SENATE MEETING
February 9, 2021

I. Call to order

II. Approval of minutes from the November 10 meeting

III. Report from the Executive Committee

IV. Report from the Academic Affairs Committee ***(See the attachment for complete proposals. See the appendix for supporting materials).***

1. **Proposal from the Department of History**
   A. Add 315
   B. Modify Major in History
   C. Modify History Secondary Education
   D. Modify Education Requirements
   E. Modify 343

2. **Proposal from the Department of Nursing**
   A. Modify 317
   B. Modify 318

3. **Proposal from the Department of Mathematics**
   A. Modify 312
   B. Add Statistics Minor (STAT)
   C. Add text "Statistics (Minor only)"
   D. Add STAT 220
   E. Add STAT 221
   F. Add STAT 240
   G. Add STAT 320
   H. Add STAT 340
   I. Add STAT 421
   J. ADD MATH 421

4. **Proposal from the Department of Sociology**
   A. Add 384
   B. Add 384 to "Sociology General Track"
   C. Modify 375
   D. Modify 496
   E. Add ANTH 343

5. **Proposal from the Department of Biology**
   A. Modify Major
   B. Modify 406

C. Modify 412
D. Modify 413
E. Modify 490
F. Add 217
G. Add 410
H. Add Veterinary Studies Option
I. Add Four Year Plan for Veterinary Studies Majors

6. **Proposal from the Department of Fine Arts** (Notification only – Approved by AAC on February 20, 2020)
   A. Modify degree options in Performing Arts
   B. Modify description of Performing Arts major
   C. Modify Specialty Tracks in Music Industry
   D. Modify Specialty Tracks in Theatre Arts
   E. Modify title of ART 208
   F. Modify title of ART 308

7. **Proposal from the Department of Physics and Engineering**
   A. Modify Engineering Technology
   B. Modify Cooperative Majors and Programs
   C. Modify Mission Statement
   D. Modify Cooperative Programs
   E. Modify Minor
   F. Add 252
   G. Delete 355
   H. Modify Industrial Engineering Major
   I. Modify 320
   J. Modify 330
   K. Modify 350
   L. Modify 373
   M. Modify 420
   N. Modify 468
   O. Modify 467

V. Report from the Graduate Council (*See the attachment for complete proposals. See the appendix for supporting materials).*

1. **Proposal from the School of Health Sciences – Department of Nursing**
   a. Modify the Nurse Education Certificate Information
   b. Modify Requirements for Doctor of Nursing (DNP) Practice Degree
   c. Modify DNP 802 course description
   d. Modify DNP 804 course description
   e. Modify DNP 805 course description
   f. Modify DN 807 course description
   g. Modify DN 808 course description

2. **Proposal from the Office of the Provost**
    a. Add Occupational Therapy Doctorate
    b. Change academic program options in catalog
    c. Change graduate degree options in catalog

3. **Proposal from the School of Health Sciences - Department of Speech-Language Pathology Program**
    a. Modify MLP 595 course description
    b. Modify MLP 617 course description
    c. Modify MLP 630 course description

VI. Old Business

VII. New Business

VIII. Announcements

IX. Adjournment

Attachment to the Faculty Senate Agenda – February 9, 2021

IV. Report from the Academic Affairs Committee

1. **Proposal from the Department of History**

A. **ADD** on page 100 of the current catalog:

315 America in the 1960s (3) (Prerequisites: One 100-level history course or permission of department). This course examines the various historical developments that arose during one of America's most polarizing and transformative decades. Topics ranging from the Vietnam War, the civil rights movement, the assorted countercultural trends and influences, the women's movement, to the conservative backlash forces will receive in-depth coverage. Moreover, understanding the leadership approach and policy decisions of Presidents John F. Kennedy, Lyndon B. Johnson, and Richard Nixon as well as the influential dominance of popular culture

on citizens' social, cultural, and political attitudes will provide a foundational lens into the decade's history.

RATIONALE: A similar course had been part of the FMU catalog but was deleted several years ago. HIST 315 represents a return of this class to the catalog.

B. MODIFY, on page 98 of the current catalog, under **Major in History**

FROM

1. Requirements for majors seeking a concentration in U.S., European, or Non-Western History (totaling 33 hours):
   a. At least three hours below the 199 level
   b. History 299 (which shall normally be taken during the sophomore year)
   c. 24 hours of additional coursework which must include at least one course from each of the following groups*
      GROUP A: HIST 308, 309, 320, 329, 330, 331, 332, 339, 351, 352
      GROUP B: HIST 305, 306, 321, 324, 340, 341, 342, 370
      GROUP C: HIST 210, 220, 300, 302, 303, 307, 310, 311, 316, 317, 319, 343, 344, 345, 346, 347, 357, 362, 363, 364, 406
   d. History 499 (which shall normally be taken during the senior year)

TO

1. Requirements for majors seeking a concentration in U.S., European, or Non-Western History (totaling 33 hours):
   a. At least three hours below the 199 level
   b. History 299 (which shall normally be taken during the sophomore year)
   c. 24 hours of additional coursework which must include at least one course from each of the following groups*
      GROUP A: HIST 308, 309, 320, 329, 330, 331, 332, 339, 351, 352
      GROUP B: HIST 305, 306, 321, 324, 340, 341, 342, 370
      GROUP C: HIST 210, 220, 300, 302, 303, 307, 310, 311, 315, 316, 317, 319, 343, 344, 345, 346, 347, 357, 362, 363, 364, 406
   d. History 499 (which shall normally be taken during the senior year)

C. MODIFY, on page 98 of the current catalog, under **History Secondary Education**

FROM

HISTORY REQUIREMENT (33 HOURS)

a. 12 hours at the 100-199 level (including both HIST 101 and 102)
b. History 299 (to be taken during the sophomore year)
c. 15 hours of additional coursework, which must include at least one course from each of the following groups:
GROUP A: HIST 308, 309, 320, 329, 330, 331, 332, 339, 351, 352
GROUP B: HIST 305, 306, 321, 324, 340, 341, 342, 370
GROUP C: HIST 210, 220, 300, 302, 303, 307, 310, 311, 316, 317, 319, 343, 344, 345, 346, 347, 357, 362, 363, 364, 406
d. History 499 (to be taken during the spring semester of the junior year)

TO

HISTORY REQUIREMENT (33 HOURS)

a. 12 hours at the 100-199 level (including both HIST 101 and 102)
b. History 299 (to be taken during the sophomore year)
c. 15 hours of additional coursework, which must include at least one course from each of the following groups:
GROUP A: HIST 308, 309, 320, 329, 330, 331, 332, 339, 351, 352
GROUP B: HIST 305, 306, 321, 324, 340, 341, 342, 370
GROUP C: HIST 210, 220, 300, 302, 303, 307, 310, 311, 315, 316, 317, 319, 343, 344, 345, 346, 347, 357, 362, 363, 364, 406
d. History 499 (to be taken during the spring semester of the junior year)

RATIONALE for B and C: These modifications reflect the addition of HIST 315 to the catalog.

D. MODIFY, on page 99 of the current catalog, under **Education Requirements**

FROM

EDUCATION REQUIREMENTS	**42 HOURS**
Pre-Professional Education	**6 HOURS**
Education 190	3
Education 192	3

Praxis CORE exam must be passed prior to admission to the Education program

PROFESSIONAL EDUCATION	**22 HOURS**
Education 310	3
Education 311	3

Education 313	2
Education 322	3
Education 420	3
Education 393 and 435 (concurrent)	5
Education 411	3

STUDENT TEACHING BLOCK	**15 HOURS**
Education 487	3
Education 490	12

TOTAL HOURS REQUIRED FOR GRADUATION **123**

TO

EDUCATION REQUIREMENTS	**43 HOURS**
Pre-Professional Education	**6 HOURS**
Education 190	3
Education 192	3

Praxis CORE exam must be passed prior to admission to the Education program

PROFESSIONAL EDUCATION	**22 HOURS**
Education 310	3
Education 311	3
Education 313	2
Education 322	3
Education 420	3
Education 393 and 435 (concurrent)	5
Education 411	3

STUDENT TEACHING BLOCK	**15 HOURS**
Education 487	3
Education 490	12

TOTAL HOURS REQUIRED FOR GRADUATION **124**

RATIONALE: The number of Education hours (6 for Pre-Professional Education, 22 for Professional Education, and 15 for the Student Teaching Block) total 43, not 42. That increases the total number of hours required for graduation by one, to 124.

E. **MODIFY**, on page 101 of the current catalog:

FROM

343 Archaeology of the Southeastern United States (3) (Prerequisites: One 100-level history course or permission of department) This course focuses on the historical archaeology of the Southeastern United States, with an emphasis on South Carolina. From the Contact, Antebellum, and Postbellum periods this course centers on the role that material culture played in the past. Particular attention is placed on the importance of slavery and race as foundational institutions in the Southeast. Additionally, students will have an opportunity to gain hands-on experience learning how to process, analyze, and preserve artifacts from Friendfield village, a 19th-20th century African-American community in Hobcaw Barony, Georgetown, SC. One 100-level history course or permission of department is prerequisite to all history courses above the 299 level.

TO

343 Archaeology of the Southeastern United States (3) (Prerequisites: One 100-level history course or permission of department) (Same as Anthropology 343) This course focuses on the historical archaeology of the Southeastern United States, with an emphasis on South Carolina. From the Contact, Antebellum, and Postbellum periods this course centers on the role that material culture played in the past. Particular attention is placed on the importance of slavery and race as foundational institutions in the Southeast. Additionally, students will have an opportunity to gain hands-on experience learning how to process, analyze, and preserve artifacts from Friendfield village, a 19th-20th century African-American community in Hobcaw Barony, Georgetown, SC. One 100-level history course or permission of department is prerequisite to all history courses above the 299 level. Credit cannot be received for both HIST 343 and ANTH 343.

RATIONALE: This change is to reflect the cross-listing that allows students to count HIST 343 toward their Anthropology minor.

2. Proposal from the Department of Nursing

A. **MODIFY** on page 156 the following:

FROM:

317 Nursing Pharmacology I (2) (Corequisites: NURS 301, 309, and 320) This course introduces the student to basic pharmacological concepts of pharmacokinetics,

pharmacodynamics, adverse effects, and drug-drug interactions. Drug laws, standards, and the medication approval process will be discussed. There will be an emphasis on the study of broad classifications of medication, their effects on the human body and nursing implications related to the peripheral nervous system, drugs that affect the hematologic and immune systems, including the treatment of infectious and parasitic diseases. The considerations related to genetics, ethics, culture, and economics are addressed throughout the course. This course lays the foundation for nursing pharmacology and prepares the student for Nursing Pharmacology II.

TO:

317 Nursing Pharmacology I (2) (Corequisites: NURS 301, 309, and 320) This course introduces the student to basic pharmacological concepts of pharmacokinetics, pharmacodynamics, adverse effects, and drug-drug interactions. Drug laws, standards, and the medication approval process will be discussed. There will be an emphasis on the study of broad classifications of medication, their effects on the human body and nursing implications related to the peripheral nervous system, drugs that affect the hematologic and immune systems, including the treatment of infectious and parasitic diseases. Drug therapy for the skin, eyes, and ears will also be included. The considerations related to genetics, ethics, culture, and economics are addressed throughout the course. This course lays the foundation for nursing pharmacology and prepares the student for Nursing Pharmacology II.

B. **MODIFY** on page 156 the following:

FROM:

318 Nursing Pharmacology II (2) (Prerequisites: NURS 301, 309, 317, and 320. Corequisites: 306, 307, and 321 or Permission of the Department) This course expands on the basic concepts of pharmacology presented in Nursing Pharmacology I, with emphasis on the study of broad drug classifications and their related nursing implications. The mechanism of action, therapeutic uses, side effects, adverse effects, interactions, and contraindications of medications that affect the central nervous system, cardiovascular, respiratory, endocrine, musculoskeletal, gastrointestinal, and reproductive systems are discussed. Drug therapy for the skin, eye, and ear will also be included. The considerations related to genetics, ethics, culture, and economics are addressed throughout the course.

TO:

318 Nursing Pharmacology II (2) (Prerequisites: NURS 301, 309, 317, and 320. Corequisites: 306, 307, and 321 or Permission of the Department) This course expands on the basic concepts of pharmacology presented in Nursing Pharmacology I, with emphasis on the study of broad drug classifications and their related nursing implications. The mechanism of action, therapeutic uses, side effects, adverse effects, interactions, and contraindications of medications that affect the central nervous

system, cardiovascular, respiratory, endocrine, musculoskeletal, gastrointestinal, and reproductive systems are discussed. ~~Drug therapy for the skin, eye, and ear will also be included.~~ The considerations related to genetics, ethics, culture, and economics are addressed throughout the course.

RATIONALE for A and B: The changes are adding a sentence into A's course description and removing the same sentence from B's course description to more accurately reflect the division of content between the two courses.

3. Proposal from the Department of Mathematics

A. **MODIFY** the course description of Mathematics 312, Probability and Statistics for Science and Mathematics on page 108 of the current catalog

FROM

312 Probability and Statistics for Science and Mathematics (3) (Prerequisites: 230 or 134 and 202 or permission of the department) F. Descriptive statistics, elementary probability, random variables and their distributions, expected values and variances, sampling techniques, estimation procedures, hypothesis testing, decision making, and related topics from inferential statistics

TO

312 Probability and Statistics for Science and Mathematics (3) (Prerequisites: A grade of C or higher in Math 202 or permission of the department) F. The course will cover topics in descriptive statistics, elementary probability, random variables and their distributions, expected values and variances, sampling techniques, estimation procedures, hypothesis testing, decision making, and related topics from inferential statistics.

RATIONALE: Math 312 is an accelerated elementary probability and statistics course. It includes all of the topics covered in Math 134 and the counting techniques covered in Math 230 plus additional topics. The nature of the topics is designed for students majoring in the sciences. Therefore, neither Math 134 nor Math 230 is needed as a prerequisite since all statistics in the course are presented with no assumed knowledge of elementary statistics. Math 202 is required since integration is needed. The phrase "The course will cover topics in" was added to enhance readability.

B. **ADD** on page 109 of the current catalog the following heading and text after the last mathematics course listing:

STATISTICS

MAJOR

No major in statistics is offered.

MINOR

A minor in statistics consist of Mathematics 134 or 312, Statistics 220, 221 and 240 plus six additional semester hours of approved statistics courses above the 200 level. Students may also use one of the following courses for three of the six additional hours of statistics courses: Biology 413, Business 305, Engineering 320, Psychology 302 or Sociology 303.

STATISTICS COURSES (STAT)

C. **ADD** the following text after the mathematics program on page 60 of current catalog:

Statistics (Minor only)

RATIONALE for Items B and C for the Statistics Minor: The Department of Mathematics investigated the need and was encouraged by faculty in other programs to create a minor in statistics. The faculty in those programs recommended statistics courses in their programs for consideration in the statistics minor. The statistics minor will give students a cohesive set of statistic courses to aid in the data analysis needs of their disciplines and to understand the descriptive and inferential statistics that are encountered in everyday life. The minor will also provide the groundwork for further studies in the statistical sciences. Data are collected everywhere, and students who are equipped to handle that data are, regardless of major, an asset to the community. The minor can be added to any degree program at Francis Marion University and may be of special interest to students whose degree requirements include Math 134 or Math 312.

As there is no currently used prefix for statistics courses, we wish to add the following courses with the new prefix STAT.

D. **ADD** the following course to the Statistics section of the catalog

220 Statistical Methods I (3) (Prerequisite: A grade of C or higher in Math 134 or 312, or Corequisite: Math 312) F. STAT 220 is designed to introduce students in varying disciplines to statistical methods and software. By the end of the course students should have a conceptual understanding of statistical analysis and should be able to choose appropriate statistical procedures for their data. They should be able to carry out statistical tests, using software as appropriate, and draw valid conclusions.

E. **ADD** the following course to the Statistics section of the catalog

221 Statistical Methods II (3) (Prerequisite: A grade of C or higher in Stat 220) S. STAT 221 is a continuation of Statistical Methods I (STAT 220) and is designed to introduce students in different disciplines to more complex data models utilizing statistical software. By the end of the course, students should have the conceptual understanding and knowledge to implement and interpret models using linear and multiple linear regression along with one- and two-way analysis of variance and non-parametric statistics.

F. **ADD** the following course to the Statistics section of the catalog

240 Introduction to Statistical Computing (3) (Prerequisite: A grade of C or higher in Stat 220) F. This course will cover topics in statistical computing including reading and manipulating data, data structures, producing graphical data representations, analyzing data with statistical tests and procedures. The course will make use of appropriate statistical software such as R or SAS.

G. **ADD** the following course to the Statistics section of the catalog

320 Introduction to Experimental Design (3) (Prerequisite: A grade of C or higher in Stat 220) S. This course will cover the design and analysis of experiments, including one and two factor analysis of variance, randomized designs, repeated measure and factorial experiments. The course will make use of appropriate statistical software such as R, SAS or Minitab.

H. **ADD** the following course to the Statistics section of the catalog

340 Introduction to Data Science (3) (Prerequisite: A grade of C or higher in Stat 220) S. The course will introduce students to the process of extracting insight about the world through data. This includes collecting, organizing and visualizing data, understanding statistical and machine learning methods, training these methods on a particular data set, and validating and testing the results. The methods will include both supervised and unsupervised learning. Discussions will also include the importance of the bias-variance trade-off. Though the course will make use of appropriate statistical software such as SAS, R, or Python, no prior coding experience is necessary.

I. **ADD** the following course to the Statistics section of the catalog

421 Mathematical Statistics (3) (Prerequisites: Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311) (Same as Mathematics 421) even S. This course will cover topics of statistical inference including point estimators, confidence intervals, minimum variance unbiased estimation, method of maximum likelihood estimation, large sample theory, hypothesis testing, and power of statistical tests.

RATIONALE for D – I: The six new courses listed above are to be offered as a part of a new minor in statistics. According to the Curriculum Guidelines for Undergraduate Programs in Statistical Science published by the American Statistical Association (ASA), the core of a minor or concentration in statistics should consist of the following: general statistical methodology; statistical modeling; facility with professional statistical software, along with data management skills; and multiple experiences analyzing data and communicating results (2014). The courses listed above sufficiently address the four main tenets of undergraduate education in the statistical sciences as set forth by the ASA, and are similar to courses offered in other minor programs in statistics at other liberal arts colleges in the Carolinas. Courses 220, 221 and 240 will be required courses; courses 320, 340 and 421 will be elective courses. (References: American Statistical Association. (2014). Curriculum guidelines for undergraduate programs in statistical science. Retrieved October 26, 2020.)

J. **ADD** on page 108 of the current catalog the following text after 420 Mathematical Probability:

421 Mathematical Statistics (3) (Prerequisites: Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311) (Same as Statistics 421) even S. The course will cover topics of statistical inference including point estimators, confidence intervals, minimum variance unbiased estimation, method of maximum likelihood estimation, large sample theory, hypothesis testing, and power of statistical tests.

RATIONALE: Mathematics students have long had the option to take Mathematical Probability (Math 420), the mathematics behind probabilities. Mathematical Statistics, the mathematics behind the statistics, would be the equivalent. Due to the statistical nature of the course, MATH 421 will be cross-listed as STAT 421. The course would be considered as an elective to the proposed minor in statistics or the major or minor in mathematics.

4. Proposal from the Department of Sociology

A. **ADD** the following course to page 126 of the FMU 2020-2021 Catalog, in numerical order:

384 Sociology of Education (3) (Prerequisite: 201 or permission of the department) This course examines the structure and operation of the education system, primarily in the United States. Several issues will be addressed including: theoretical perspectives on education's role in society; how schools interact with other social institutions, such as the family, economy, politics, and religion; funding sources and variety of educational institutions; factors affecting student

performance; issues of access and inequality among different social and demographic groups; and public policies affecting educational outcomes.

RATIONALE: Education is a major institution in society and has important impacts on the population as well as other social institutions in society. Most sociology programs have this or a similar course in their curriculums. Many of our majors and minors enter into careers (i.e. social work, counseling) that will require them to have an understanding of educational institutions. This course will not show students how to be teachers or school administrators.

B. ADD under "SOCIOLOGY GENERAL TRACK" on page 125 of the FMU 2020-2021 Catalog, under Sociology General Track, 2., a), between 382 and 387:

384

RATIONALE: Changes in the course options for the General Track reflect the addition of Sociology 384.

C. MODIFY the course description of Sociology 375 on page 126 of the FMU 2020-2021 Catalog:

FROM

375 Sociology of Health and Medicine (3) (Prerequisite: SOC 201 or permission of Sociology department) (SOC 375 is same as IPHC 375) Trends and group differences in health and illness; theoretical perspectives on health; the sick role; seeking and using health services; patient-practitioner relationships; caregiving issues; social organization of healthcare systems; international and cultural differences; medicalization of chronic conditions; current issues and problems. Credit cannot be received for both SOC 375 and IPHC 375.

TO

375 Sociology of Health and Medicine (3) (Prerequisite: 201 or permission of the department) Trends and group differences in health and illness; theoretical perspectives on health; the sick role; seeking and using health services; patient-practitioner relationships; caregiving issues; social organization of healthcare systems; international and cultural differences; medicalization of chronic conditions; current issues and problems.

RATIONALE: SOCI 375 was cross-listed as IPHC 375 as a required course for the Healthcare Administration degree program. IPHC 375 was removed from the catalog when SOCI 375 was removed from the HCA degree program requirements. This updated description reflects that deletion.

D. **MODIFY** the course prerequisites of Sociology 496 on page 127 of the FMU 2020-2021 Catalog:

FROM

496 Sociology Capstone Experience (1) (Prerequisite: Senior standing; declared sociology major, and permission of department) F, S. This course will be used as a final step towards preparing seniors for the job market or graduate school. An examination of potential careers, professional goals, and application materials, and employment/graduate school searches will occur. Students will also participate in an assessment of learning outcomes via an exit exam.

TO

496 Sociology Capstone Experience (1) (Prerequisite/Corequisite: 403; Prerequisite: Senior standing; declared sociology major, and permission of department) F, S. This course will be used as a final step towards preparing seniors for the job market or graduate school. An examination of potential careers, professional goals, and application materials, and employment/graduate school searches will occur. Students will also participate in an assessment of learning outcomes via an exit exam.

RATIONALE: Our capstone course requires students to take an exit exam based on the core courses (SOCI 201, 302, 303, 339, and 403). The current prerequisites do not ensure students have/will have completed the required coursework prior to taking the exit exam. We have several students who technically qualify to take the course (i.e., they are majors with senior standing), but they are not actually prepared for the course because they have not completed the core courses. Because SOCI 403 is the final course in the core course sequence, making it a prerequisite/corequisite would correct this.

E. **ADD** the following course under "ANTHROPOLOGY" on page 127 of the FMU 2020-2021 catalog, in numerical order:

343 Archaeology of the Southeastern United States (3) (ANTH 343 is the same as HIST 343) (Prerequisites: One 100-level history course or permission of department) This course focuses on the historical archaeology of the Southeastern United States, with an emphasis on South Carolina. From the Contact, Antebellum, and Postbellum periods this course centers on the role that material culture played in the past. Particular attention is placed on the importance of slavery and race as foundational institutions in the Southeast. Additionally, students will have an opportunity to gain hands-on experience learning how to

process, analyze, and preserve artifacts from Friendfield village, a 19th-20th century African-American community in Hobcaw Barony, Georgetown, SC. One 100-level history course or permission of department is prerequisite to all history courses above the 299 level. Credit cannot be received for both ANTH 343 and HIST 343.

Rationale: Anthropology 343 is being cross-listed with History 343 (Archaeology of the Southeastern United States). Archaeology is one of the four subfields of anthropology, making it relevant to those interested in this subject matter. Cross-listing the course allows students to count HIST 343 toward their Anthropology minor.

5. Proposal from the Department of Biology

A. MODIFY on page 63 of the current catalog after **MISSION STATEMENT**:

FROM

MAJOR [*Format – highlighted heading*]
A major in biology requires the following:

1. Biology 105* and 115* or 107 *Biology 103 and 104 may substitute for 105 and 115 with permission from the department

2. Biology 106 or 108

3. One course in organismal biology (either 201, 202, 206, 207, 208, 209, 303, 307, 311, 312, 313, 315, or 320)

4. Biology 499

5. One course in cellular biology (either 301, 302, or 407)

6. One course in Ecology (either 308, 317, 318, 402, 411, or 412)

7. One course in genetics (either 401 or 409)

8. Additional courses in biology to bring the total to 25 semester hours above the 100 level. Students may select only two courses from the biology 206, 207, 208 series

9. Minor/collateral requirements (two options)
a) two 12-hour collaterals approved by the faculty adviser
b) an 18-hour minor approved by the faculty adviser

Other requirements include Chemistry 101, 102, and 201 and either Physics 200, 201 and 202 or Physics 215-216.

TO

BIOLOGY DEGREES [*Format – highlighted heading similar to other majors and options*]
MAJOR [*Format – conventional title similar to MINOR and COLLATERAL as found further down in the catalog*]

A major in Biology requires the following:

Communications ..... 9-10 hours
- English 101 (or 101E/L), 102 ..... 6 or 7
- Speech Communication 101 3

Mathematics ..... 6 hours
- Mathematics 111, 132, or higher 6

Social Sciences ..... 9 hours
- Political Science 101 or 103 3
- Social Science Elective 3
- Social Science Elective 3

Humanities ..... 12 hours
- Literature 3
- History 3
- Fine Art Appreciation 3
- Humanities Elective 3

Biology ..... 33 hours
- Biology 105/115L* or 107 4
  - *Biology 103 and 104 may substitute for 105 and 115L with permission from the department
- Biology 106 or 108 4
- Cellular Biology Block (either 301, 302, or 407) 4
- Organismal Biology Block (either 201, 202, 206, 207, 208, 209, 303, 307, 311, 312, 313, 315, or 320) 4
- Ecology Block (either 308, 317, 318, 402, 411, or 412) 4
- Genetics Block (either 401 or 409) 4
- Biology Elective 4
- Biology Elective 4
- Senior Seminar (499) 1

Chemistry ..... 12 hours
- Introductory Chemistry (101 and 102) 8
- Organic Chemistry (201) 4

Physics ..... 8-12 hours
- General Physics (215 and 216) 8
- OR Technical Physics (200, 201, and 202) 12

2nd Collateral OR Chemistry Minor ..... 6-12 hours

Electives .....14-25 hours
Total Hours Required for Graduation .....120 hours

RATIONALE: This is simply a formatting change to make the basic biology degrees listing look similar to the other options and majors in the section. The content and requirements for the degrees are not changing.

B. MODIFY: On page 66 of the current catalog change the title and description of BIOL 406:

FROM

406 Physiology (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and 205 or 305 and Chemistry 201 or permission of the department) F, S. The normal structure and function of the animal body, with special emphasis on human body systems. Physical and chemical concepts such as bioenergetics and enzyme function will be covered. Credit cannot be given for both Biology 236 and Physiology 406.

TO

406 Human Physiology (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and 205 or 305 and Chemistry 201 or permission of the department) The normal structure and function of the major organ systems of the human body. Physical and chemical concepts such as bioenergetics and enzyme function will be covered. Credit cannot be given for both Biology 236 and 406.

RATIONALE: This course is being renamed to distinguish it from the new course listed below BIOL 410: Animal Physiology. BIOL 406 has always focused more on human systems than animal systems. We are changing the name to avoid confusion.

C. MODIFY: On page 67 of the current catalog, change the title of BIOL 412:

FROM

412 Behavioral Ecology

TO

412 Animal Behavior

Rationale for Item C: This course is being renamed to clearly indicate that it is a traditional Animal Behavior course for acceptance to veterinary and graduate

schools that specifically require it. These two terms are closely related. In essence, behavioral ecologists study animal behavior.

D. MODIFY: On page 67 of the current catalog, change the title of BIOL 413:

FROM

413 Biological Research Methods

TO

413 Biostatistics and Research Methods

RATIONALE for Item D: This change is being made to better reflect the actual course content, which covers both experimental design and statistical analysis. Additionally, we've found many graduate and professional programs (such as veterinary programs) want to see a statistics or biostatistics class on students' transcripts. The previous title hid the fact that students had biostatistics and would necessitate additional documentation on the part of the student and our faculty to prove this course had that content. Thus, changing the name will both better reflect existing course content as well as simplify student's applications to professional schools and graduate programs.

E. MODIFY: On page 67 of the current catalog, change the title and description of BIOL 490:

FROM

490 Pre-Veterinarian Internship (1) or (2) (Prerequisite: Permission of the department). Clinical experience in veterinary medicine under the supervision of a practicing veterinarian. A maximum of 3 semester hours may be earned. Earned hours do not fulfill the requirements of biology electives for a biology major, minor, or collateral.

TO

490 Veterinary Studies Internship (1) or (2) (Prerequisite: Permission of the department). The student gains practical experience working with live animals under the supervision of a trained animal professional. A maximum of 3 semester hours may be earned. Earned hours do not fulfill the requirements of biology electives for a biology major, minor, or collateral.

RATIONALE for E: BIOL 490 is being renamed to include a broader range of animal-related internships.

F. ADD: On page 65 of the current catalog add the listing for new course BIOL 217:

217 Principles of Animal Nutrition (3) (Prerequisite: 105/115 or 107 and 106 or 108 or permission of the department) An introduction to the principles of animal nutrition. General topics will include the nutritional requirements of animals, the mechanisms animals use for nutrient digestion, absorption and metabolism, and the nutrient composition and formulation of animal feeds.

RATIONALE for Item F: Animal Nutrition is a course that many veterinary schools and graduate schools require for admission. It would also benefit students pursuing certain animal-related careers. This is a course that we have wished we could offer for some time. Until now, FMU students requiring this course have had to take it online or as transient credit.

G. ADD: On page 67 of the current catalog add the listing for new course BIOL 410:

410 Animal Physiology (4). (4:3-3) (Prerequisite: 305 and Chemistry 201 or permission of the department) A comparative study of the function of the major organ systems in different classes of animals.

RATIONALE for Item G: Many veterinary and graduate schools are looking for a physiology course that focuses on animals. This course will utilize a comparative approach to study the physiological function of the major organ systems in the body among various taxa of vertebrate animals. Emphasis will be placed on nervous, musculoskeletal, cardiovascular, respiratory, digestive, excretory, reproductive, and endocrine systems.

H. ADD: On page 64 of the current catalog before the **BIOLOGY COURSES (BIOL)** section, add the new "Veterinary Studies" Option in Biology.

VETERINARY STUDIES OPTION IN BIOLOGY [*Format – highlighted heading*]
Coordinator: Dr. Tamatha Barbeau

The Veterinary Studies Option prepares biology students for paraprofessional careers involving the health, well-being, or management of animals. It also prepares students for entry into various professional-level veterinary medicine and veterinary sciences post-graduate programs. Potential career outcomes vary widely and may include veterinary medicine, veterinary support, animal care and support in biomedical and diagnostic research setting, population management of animals, zookeeping careers, and positions with non-profit animal rescue/relocation/rehabilitation organizations. The Veterinary Studies Option can also meet the admission requirements of most Veterinary Schools.

Students who plan to pursue Veterinary School should research the individual requirements of the programs to which they intend to apply.

The Veterinary Studies Option requires the following:

Communications	9-10 hours
English 101 (or 101E/L), 102	6 or 7
Speech Communication 101	3
Mathematics*	6 hours
MATH 132 or higher	3-6
Social Sciences	9 hours
POLI 101 or 103	3
Social Science Elective	3
Social Science Elective	3
Humanities	12 hours
Literature	3
History	3
Fine Art Appreciation	3
Humanities Elective	3
Biology	33 hours
BIOL 105/115 or 107	4
BIOL 106 or 108	4
Organismal Block: (201, 202, 209, 216, 311, 312, 315)	4
Cellular Block: (301, 302, or 407)	4
Ecology Block: (412)	4
Genetics Block: (401 or 409)	4
Biology Elective	4
Biology Elective	4
Senior Seminar (499)	1
Statistics*	
MATH 134 or BIOL 413	3
Veterinary Studies Internship (BIOL 490)	1-3 hours
Chemistry Collateral	12 hours
Introductory Chemistry (101 and 102)	8
Organic Chemistry (201)	4
Physics	8-12 hours
General Physics (215 and 216)	8
OR Technical Physics (200, 201, and 202)	12
2nd Collateral or Minor	6-12 hours
Electives	8-24 hours
Total Hours Required for Graduation	120 hours

*Veterinary Studies students are required to complete the appropriate math requirement to take physics. If they take MATH 134 as the statistics requirement, they will fulfill the second math for general education. If they

take BIOL 413 for the statistics requirement, they will need to take a second mathematics course.

ADDITIONAL INFORMATION FOR VETERINARY SCHOOL [*Format – conventional title*]
Students applying to Veterinary School should:

- take Microbiology (BIOL 311) to fulfill the Organismal Block.
- take Genetics (401) to fulfill the Genetics Block.
- take Principles in Animal Nutrition (BIOL 217), Comparative Vertebrate Anatomy (BIOL 305), and Animal Physiology (BIOL 410) to fulfill the biology electives.
- complete a Chemistry Minor including Biochemistry (CHEM 404)

I. ADD: On page 72 before the **DEPARTMENT OF CHEMISTRY** section:

FOUR YEAR PLAN FOR VETERINARY STUDIES MAJORS: WITH A CHEMISTRY MINOR OR TWO COLLATERALS

Freshman Year			
Course	**Fall Sem.**	**Course**	**Spring Sem.**
English 101 (or 101E/101L)	3-4	English 102	3
Mathematics 132	3	Speech Communication	3
Biology 105/115 or 107	4	Biology 106 or 108	4
Chemistry 101: General Chemistry	4	Chemistry 102: General Chemistry	4
Total Credits	**14-15**	**Total Credits**	**14**
Sophomore Year			
Course	**Fall Sem.**	**Course**	**Spring Sem.**
Biology (Organismal)	4	Biology (Elective)	4
Chemistry 201 Organic Chemistry	4	Chemistry 202 or 2nd Collateral	3-4
Social Science Elective	3	Literature	3
Art 101, Music 101, or Theatre	3	Political Science 101 or 103	3
Elective	3	Elective	3
Total Credits	**17**	**Total Credits**	**16-17**
Junior Year			
Course	**Fall Sem.**	**Course**	**Spring Sem.**
Physics 215: General Physics I	4	Physics 216: General Physics II	4
Chemistry 404 or 2nd Collateral	3	Biology (Elective)	4
Biology 490: Veterinary Studies	1-2	2nd Collateral or Elective	3
History	3	Biology 490: Veterinary Studies	1-2
Social Science Elective	3	Humanities Elective	3
Total Credits	**14-15**	**Total Credits**	**15-16**
Senior Year			
Course	**Fall Sem.**	**Course**	**Spring Sem.**
Biology (Animal Behavior)	4	Biology (Genetics or Evolution)	4
Biology (Cell, Developmental, or Immunology)	4	Statistics (MATH 134 or BIOL 413)	3
Biology 499: Senior Seminar	1	Elective	3
2nd Collateral or Elective	3	Elective	3
Elective	3	Elective	3
Total Credits	**15**	**Total Credits**	**16**
Total Hours Required for Degree – 120			

RATIONALE for Items H-I: An FMU committee appointed by the Provost performed a feasibility study in 2019/2020 to evaluate the need and implementation of an animal-related option in the biology degree. Many students that are interested in biology have chosen that major because they are interested in working with animals. This new option is a deliberate approach to recruit and prepare students for animal-related careers. The curriculum has also been structured in a way that can prepare students to apply to Veterinary School.

The committee solicited feedback from several organizations and businesses in the region, including Humane Societies, Veterinary Clinics, Animal Shelters and Rehabilitation Centers, Riverbanks Zoo, and the Department of Natural Resources. Not only did these organizations express support for such a program, many have already offered to provide practical internship opportunities and are looking forward to hiring the FMU students that will graduate with this kind of training.

In the end, the feasibility committee concluded that the addition of such a program to the FMU curriculum would be desirable, should require a relatively minimal investment to implement, and will generate interest and growth for the University.

6. **Proposal from the Department of Fine Arts**

A. **MODIFY** on page 66 of the current catalog under "DEPARTMENT & COLLEGE/SCHOOL ORGANIZATION," FRANCIS MARION UNIVERSITY COLLEGE OF LIBERAL ARTS

FROM

Department of Fine Arts
Art History (Minor)
Music (Minor, collateral) (See Performing Arts for major.)
Performing Arts (B.A., tracks in Theatre Performance and Theatre Design/Technology, no minor or collateral; B.S., tracks in Music Industry Business, Music Industry Performance, Music Industry Technology, no minor or collateral)
Theatre (Minor, collateral) (See Performing Arts for major.)
Visual Arts (B.A., minor, collateral; B.A., B.S. for Teacher Certification, no minor or collateral)

TO

Department of Fine Arts
Art History (Minor)
Music (Minor, collateral) (See Performing Arts for major.)
Performing Arts (B.A., B.S., tracks in Music Industry Business, Music Industry Performance, Music Industry Technology, Theatre Performance and Theatre Design/Technology,

no minor or collateral)
Theatre (Minor, collateral) (See Performing Arts for major.)
Visual Arts (B.A., minor, collateral; B.A., B.S. for Teacher Certification, no minor or collateral)

B. **MODIFY** on approx. page 93 of the current catalog (after the COURSE LISTING for ARTH 400)

FROM

PERFORMING ARTS
MAJOR
A major in Performing Arts requires that a student pursue a B.S. with one of three Music Industry tracks (Business, Performance, Technology) or a B.A. with one of two Theatre Tracks (Performance, Design/Technology).

TO

PERFORMING ARTS
MAJOR
A major in Performing Arts requires that a student pursue a B.S. or a B.A. with one of ~~three Music Industry~~ five tracks (Music Industry Business, Music Industry Performance, Music Industry Technology, Theatre Design/Technology, Theatre Performance) ~~or a B.A. with one of two Theatre Tracks (Performance, Design/Technology)~~. A B.A. is recommended for students in a Performance Track. A B.S. is recommended for students in a Technology Track.

C. **MODIFY** on page 94 of the current catalog (under the MUSIC INDUSTRY section)

FROM

SPECIALTY TRACKS IN MUSIC INDUSTRY
A major in Performing Arts with a B.S. in a music industry specialty track requires the following:

1. Thirty-two semester hours of Music Industry Foundation Courses:
   Music theory (Music 115, 116, 215, and 216) . . . . . 8 hours
   Music history (Music 301 and 302). . . . . 6 hours
   Music business and technology
   (Music 172, 210, 211, 372, and 498 or 499
   [Performance Track must take 499]). . . . . 18 hours

2. Twenty-four semester hours in one specialty track option:
   a. Business Track*:
   Music 317 and 371 . . . . . 6 hours

Completion of two levels of applied lessons
(four semester hours) . . . . . 4 hours
Five semesters of ensemble (three must be applied as
material and commercial support) . . . . . 5 hours
Nine hours of 200 level (or higher) business courses
(Approved by the faculty advisor). . . . . 9 hours

* Business is the recommended minor for the Business Track.

b. Performance Track:
Music 315, 316, 317, and 415 . . . . . 10 hours
Completion of four levels of applied lessons
(eight semester hours) . . . . 8 hours
Seven semesters of ensemble (No more than a total
of six semester hours may apply toward
graduation.) . . . . . 6 hours
Completion of a senior recital

c. Technology Track**:
Music 371 . . . . . 3 hours
Completion of two levels of applied lessons
(four semester hours) . . . . . 4 hours
Six semesters of ensemble (three large and three small,
and three must be applied as material and
commercial support). . . . . 6 hours
Eleven hours selected from at least two of the following
areas:
a. Physics 202 or higher
b. 200 level (or higher) business courses (approved by
the adviser)
c. Completion of one level of applied lessons in a second area . . .
. . . . . 11 hours

** Physics is the recommended minor for the Technology Track.

NOTE: Large ensembles are MU 100, 140, and 150. Small ensembles are MU 120, 130, 160, 180, and 190.

3. Completion of the piano proficiency exam by the end of the sophomore year
(54 hours) or departmental approval

4. Seven semesters of Music 102 (Recital Attendance)

5. Minor/collateral requirements (two options)
a) Two 12-hour collaterals approved by the faculty adviser
b) An 18-hour minor approved by the faculty adviser

The minimum number of semester hours required in major courses for a major in Performing Arts with a Music Industry Track Specialty is 56. The minimum number of semester hours in all courses (major and non-major) required for the major in Performing Arts with a B.S. in a Music Industry specialty track is 120.

TO

SPECIALTY TRACKS IN MUSIC INDUSTRY

A major in Performing Arts with a ~~B.S.~~ degree in a music industry specialty track requires the following:

1. Thirty-two semester hours of Music Industry Foundation Courses:
   - Music theory (Music 115, 116, 215, and 216) . . . . . 8 hours
   - Music history (Music 301 and 302). . . . . 6 hours
   - Music business and technology
     (Music 172, 210, 211, 372 or SPCO 203, and Music 498 or 499 [Performance Track should take SPCO 203 and must take 499]). . . . . .18 hours

2. Twenty-four semester hours in one specialty track option:

   a. Business Track*:
   - Music 317 and 371 . . . . . 6 hours
   - Completion of two levels of applied lessons (four semester hours) . . . . . 4 hours
   - Five semesters of ensemble (three must be applied as material and commercial support) . . . . . 5 hours
   - Nine hours of 200 level (or higher) business courses (Approved by the faculty advisor). . . . . 9 hours

   * Business is the recommended minor for the Business Track.

   b. Performance Track:
   - Music 315, 316, 317, and 415 . . . . . 10 hours
   - Completion of four levels of applied lessons (eight semester hours) . . . . . 8 hours
   - Seven semesters of ensemble (No more than a total of six semester hours may apply toward graduation.) . . . . . 6 hours
   - Completion of a senior recital

   c. Technology Track**:
   - Music 371 . . . . . 3 hours
   - Completion of two levels of applied lessons (four semester hours) . . . . . 4 hours
   - Six semesters of ensemble (three large and three small, and three must be applied as material and

commercial support). . . . . 6 hours

Eleven hours selected from at least two of the following areas:

i. Physics 202 or higher

ii. 200 level (or higher) business courses (approved by the adviser)

iii. Completion of one level of applied lessons in a second area

(eleven semester hours). . . . . 11 hours

** Physics is the recommended minor for the Technology Track.

NOTE: Large ensembles are MU 100, 140, and 150. Small ensembles are MU 120, 130, 160, 180, and 190.

6. Completion of the piano proficiency exam by the end of the sophomore year (54 hours) or departmental approval

7. Seven semesters of Music 102 (Recital Attendance)

8. Minor/collateral requirements (two options)
   a) Two 12-hour collaterals approved by the faculty adviser
   b) An 18-hour minor approved by the faculty adviser

The minimum number of semester hours required in major courses for a major in Performing Arts with a Music Industry Track Specialty is 56. The minimum number of semester hours in all courses (major and non-major) required for the major in Performing Arts with a ~~B.S.~~ degree in a Music Industry specialty track is 120.

D. **MODIFY** on approx. page 96 of the current catalog (under the THEATRE ARTS section)

FROM

SPECIALTY TRACKS IN THEATRE ARTS

A major in Performing Arts with a B.A. in a theatre arts specialty track requires the following:

1. Theatre 210 (four one-semester hour courses), 200 or 203, 201, 202, 209, 291, 301, 320, 321

2. Nine semester hours selected from English 352, 361, 365, and 372

3. Twelve semester hours from one specialty area
   a) Design specialty: Theatre 302, 303, 402, and either 309 or three semester hours from the performance specialty
   b) Performance specialty: Theatre 205, 305, 401, 405, and either Speech

Communication 203, Theatre 497, or three semester hours from the design specialty

4. Minor/collateral requirements (two options)
   a) Two 12-hour collaterals approved by the faculty adviser

   b) An 18-hour minor approved by the faculty adviser
5. Completion of a foreign language through 202

Theatre Arts majors students must enroll in English 365 to fulfill the literature requirement of the Humanities section of the General Education Requirements.
The number of semester hours required in major courses for a major in Performing Arts with a B.A. in a theatre arts specialty track is 40. The minimum number of semester hours in all courses (major and non-major) required for the major in Performing Arts with a B.A. in a theatre arts specialty track is 120.

MINOR

A minor in theatre requires 18 semester hours selected from theatre courses above the 199 level, Speech Communication 203 or English 365. Credit cannot be given for both Theatre 200 and 203.

TO

SPECIALTY TRACKS IN THEATRE ARTS

A major in Performing Arts with a ~~B.A.~~ degree in a theatre arts specialty track requires the following:

6. Theatre 210 (four one-semester hour courses), 200 or 203, 201, 202, 209, 291, 301, 320, 321

7. Nine semester hours selected from English 352, 361, 365, and 372

8. Twelve semester hours from one specialty area
   a) Design specialty: Theatre 302, 303, 402, and either 309 or three semester hours from the performance specialty
   b) Performance specialty: Theatre 205, 305, 401, 405, and either Speech Communication 203, Theatre 497, or three semester hours from the design specialty

9. Minor/collateral requirements (two options)
   a) Two 12-hour collaterals approved by the faculty adviser

   b) An 18-hour minor approved by the faculty adviser
10. Completion of a foreign language through 202

Theatre Arts ~~majors~~ students must enroll in English 365 to fulfill the literature requirement of the Humanities section of the General Education Requirements.

The number of semester hours required in major courses for a major in Performing Arts with a ~~B.A.~~ degree in a theatre arts specialty track is 40. The minimum number of semester hours in all courses (major and non-major) required for the major in Performing Arts with a ~~B.A.~~ degree in a theatre arts specialty track is 120.

MINOR

A minor in theatre requires 18 semester hours selected from theatre courses above the 199 level, Speech Communication 203, or one course chosen from English 352, 361, or 365. Credit cannot be given for both Theatre 200 and 203.

RATIONALE FOR A-D: The Music Industry major and the Theatre Arts major were moved into a single Performing Arts major which was approved by the general faculty last semester. Rather than requiring a B.A. for Theatre Arts tracks and a B.S. for Music Industry tracks, this proposal allows students to choose a B.A. or a B.S. and those recommendations will be that performance majors pursue a B.A. and technology majors pursue a B.S. This change will allow technology majors in both areas to take upper level science courses and performance majors in both areas to take modern language courses.

In addition, this proposal contains the addition of SPCO 203: VOICE AND DICTION as an option in the basic Music Industry curriculum as the music faculty feel performers—particularly vocal performance students—would benefit more from this course than MUSI 372: PRINCIPLES AND TECHNIQUES OF SONGWRITING.

Also, the Theatre minor adds the option of two more choices from the dramatic literature course offerings in ENGLISH—ENGL 352: HISTORY OF AMERICAN DRAMA, ENGL 361: SHAKESPEARE. The current option of ENGL 365: MODERN DRAMA is not taught every semester, and we've allowed substitutions of the other two for students trying to graduate. This change just makes those substitutions official options.

E. **MODIFY** on page 96 of the current *Catalog*, the title of ART 208

FROM

ART 208: Introductory Photography

TO

ART 208: Introduction to Film Photography

F. **MODIFY** on page 96 of the current *Catalog*, the title of ART 308

FROM

ART 308: Intermediate Photography

TO

ART 308: Intermediate Film Photography

Rationale for E and F: These changes are to clarify for students that 208 and 308 do not cover digital photography.

7. Proposal from the Department of Physics and Engineering

A. **MODIFY** on pp. 116 – 117 of the current catalog

FROM

ENGINEERING TECHNOLOGY (CIVIL & ELECTRONIC)
Coordinator: Dr. Derek W. Jokisch

The Bachelor of Science degree in technology is offered with concentrations in the areas of civil engineering and electronic engineering technology through cooperative arrangements with South Carolina Technical Colleges. This is an industry-oriented program and is a completely coordinated cooperative program in which participating students may be simultaneously enrolled in courses on both campuses.

All general degree requirements (see "General Education Requirements" earlier in this catalog) are applicable for students enrolled in cooperative programs.

A. Engineering Technology (Civil)

A major in engineering technology (civil) requires completion of the following:

1. Physics 200, 201, 202, 220, 310, and 419
2. Mathematics 201 and 202
3. Mathematics 213
4. Chemistry 101 and 102

Students must complete a minor in either Physical Sciences or Business. A minor in Physical Sciences requires 11 semester hours, including Math 203 and a minimum of eight semester hours from the following: Physics 301, 302, 306, 312, 314, or 316 (any 300-level physics course, except for 310) or Chemistry 201, 202, 203, or 301. A minor in Business requires 18 semester hours. See the requirements for the minor in Business in the "School of Business" section of this catalog.

Approximately 40 semester hours toward the Bachelor of Science in Engineering Technology are earned at Florence-Darlington Technical College or any other technical college in South Carolina.

The technical college required classes are the following: EGR 120 and 194
EGT 101, 105, and 150
CET 105, 125, 205, 216, 218, 235, 240, 246, 250, and 255

B. Engineering Technology (Electronic)
A major in engineering technology (electronic) requires completion of the following:
1. Physics 200, 201, 202, 220, 314, and 419
2. Mathematics 201 and 202
3. Mathematics 213
4. Chemistry 101 and 102

Students must complete a minor in either Physical Sciences or Business. A minor in Physical Sciences requires 11 semester hours, including Math 203 and a minimum of eight semester hours from the following: Physics 301, 302, 306, 310, 312, or 316 (any 300-level physics course, except for 314) or Chemistry 201, 202, 203, or 301. A minor in Business requires 18 semester hours. See the requirements for the minor in Business in the "School of Business" section of this catalog.

Approximately 44 semester hours toward the Bachelor of Science in Engineering Technology are earned at Florence-Darlington Technical College or any other technical college in South Carolina.

The technical college required classes are the following: EGR 120
EGT 151
EET 113, 114, 131, 145, 218, 220, 231, 235, 243, 251, and 273

TO

ENGINEERING TECHNOLOGY (CIVIL, ELECTRONICS, & MECHANICAL)
Coordinator: Dr. Derek W. Jokisch
The Bachelor of Science degree in Engineering Technology is a cooperative program with South Carolina Technical Colleges, whereby the technical college provides the Engineering Technology coursework that will prepare students for immediate employment, and Francis Marion provides additional coursework that will prepare students for long-term career advancement. Students pursuing this degree must select a concentration in either Civil Engineering Technology (CET), Electronics Engineering Technology (EET), or Mechanical Engineering Technology (MET) and must complete all of the course requirements for an Associate in Applied Science degree in their respective concentration (either CET. EET, or MET) from a South Carolina Technical College. As a part of this cooperative arrangement, students may be simultaneously enrolled in courses on both campuses.

The total number of credits required for graduation is 120. Approximately 50 of these credits must be completed at a South Carolina Technical College in order satisfy that institution's CET/EET/MET course requirements. The Francis Marion course requirements comprise the remaining credits, which are listed below.

Francis Marion University course requirements (71 credits):

- 6 credits of Mathematics: Mathematics 134 and at least one of the following: Math 132, 137, or 201
- 16 credits of Science: Physics 215 and 216 (or 200, 201, and 202); Chemistry 101; Biology 105 and 115L
- 4 additional upper-level credits: English 318 and Physics 419
- 18 credits for a Minor in Business: Students must complete a minor in Business as described later in this catalog (within the School of Business section).
- 27 credits of General Education (A total of 48 hours are required for General Education, but 21 of these credits are already included in the requirements listed above.)

In addition to the course requirements above, Engineering Technology students are encouraged to take CS 150.

Since students are required to complete the Francis Marion General Education Requirements (listed earlier in this catalog), they are not required to also complete the general education requirements from the technical college. For the list of courses required from the technical college, students should consult the course catalog for that institution. For example, at the time of this writing, Florence Darlington Technical College requires 47 credits for CET, 49 credits for EET, and 48 credits for MET (not including General Education requirements), as listed here: https://www.fdtc.edu/academics/programs/catalog

B. MODIFY on p. 60 of the current catalog, under Cooperative Majors and Programs

FROM

Engineering Technology (Civil and Electronic)
(B.S. – Major offered through cooperative agreements with South Carolina Technical Colleges, no minor or collateral)

TO

Engineering Technology (Civil, Electronics, and Mechanical)
(B.S. – Major offered through cooperative agreements with South Carolina Technical Colleges, no minor or collateral)

C. MODIFY on p. 111 of the current catalog, under MISSION STATEMENT

FROM

Students majoring in Engineering Technology choose a concentration in either Civil Engineering Technology or Electronics Engineering Technology.

TO

Students majoring in Engineering Technology choose a concentration in either Civil Engineering Technology, Electronics Engineering Technology, or Mechanical Engineering Technology.

D. MODIFY on p. 162 of the current catalog, under COOPERATIVE PROGRAMS

FROM

Undergraduate cooperative majors are offered with South Carolina Technical Colleges in the areas of civil engineering technology and electronic engineering technology, with Clemson University in the area of engineering, with McLeod Regional Medical Center or other accredited programs in the area of medical technology, with MUSC and USC Colleges of Pharmacy for Pharmaceutical Studies, and with other institutions in various majors on an individual basis.

TO

Undergraduate cooperative majors are offered with South Carolina Technical Colleges in engineering technology, with Clemson University in engineering, with McLeod Regional Medical Center or other accredited programs in the area of medical technology, with MUSC and USC Colleges of Pharmacy for Pharmaceutical Studies, and with other institutions in various majors on an individual basis.

RATIONALE for A-D: This proposal adds Mechanical Engineering Technology as a third concentration in the Engineering Technology major. It also addresses two problems that have existed with the Engineering Technology program for a long time:

1. The students pursuing this degree have had a very difficult time completing the required sequences of Calculus (Mathematics 201, 202, and 213) and calculus-based physics (Physics 200, 201, 202, 220, and either 310 or 314). For the careers that these students are pursuing, it is not necessary for them to know the content from these courses, so we are removing these courses from the requirements, and we are replacing these courses with content that will be more relevant to their future careers. In order to maintain the same number of credits above the 300-level, we are adding English 318; and in order to stay at approximately 120 total credits, we are removing Chemistry 102.

2. The way that the technical college requirements have been listed in the FMU Course Catalog has proven to be unmanageable, and this proposal simplifies these requirements. Currently,

the technical college requirements are presented in the FMU Course Catalog as a list of technical college courses. However, these courses change from year to year, so they quickly become out of date; and these courses are not uniform between the various South Carolina Technical Colleges. The result is a listing of courses that is both inaccurate and confusing. We are simplifying this requirement by stating that students "must complete all of the course requirements for an Associate in Applied Science degree in their respective concentration (either CET or EET) from a South Carolina Technical College." This is essentially what we were already requiring, but this will be much simpler to understand for everyone involved.

Summary of changes

- Adds Mechanical Engineering Technology as a concentration.
- Makes the FMU requirements for all concentrations (Civil, Electronics, and Mechanical) identical.
- Provides students with a non-calculus-based path for Math and Physics requirements. Note that a calculus-based path is still available for students.
- Requires Math 134 (Probability and Statistics)
- Requires English 318 (Technical Communication)
- Requires Biology 105/115 (Biological Sciences I with Laboratory)
- No longer requires: Physics 220 (Computational Methods for Physics and Engineering) and either Physics 310 (Electronics for CETs) or 314 (Modern Physics for EETs)
- No longer requires: Mathematics 213 (Scientific Programming in Python) and Chemistry 102 (General Chemistry II: Intro to Inorganic Chemistry).
- Requires a minor in Business. Previously students chose between a Business minor and a "Physical Sciences" minor that was only defined for ET majors.
- No longer attempts to list specific Technical College course requirements, instead deferring to the appropriate Technical College catalog.

E. **MODIFY** on p. 112 of the catalog, under Physics

FROM

MINOR
A minor in physics requires 18 semester hours, including Physics 200, 201, and 202. Physics 215 and 216 may not be counted toward the minor.

TO

MINOR
A minor in physics requires 18 semester hours, including Physics 200, 201, 202, and 314. Physics 215 and 216 may not be counted toward the minor.

RATIONALE for E: Concepts covered in Modern Physics (PHYS 314) include relativity and quantum theory which are not covered in the PHYS 2xx courses. Students minoring in physics should study these topics.

F. ADD, on page 115 of the current catalog:

252 Operations Analysis and Management (3) (Prerequisites: 301 and Mathematics 202) S. Students are introduced to principles, tools, and models for analyzing, engineering, and managing manufacturing and service operations. The course focuses on the application of project management methods, value stream mapping, line balancing, and queueing theory for manufacturing and service industries. Emphasis is also given to discrete-event simulation models of operational dynamics, including analysis of cycle time, throughput, and inventory.

G. DELETE, on page 115 of the current catalog:

355 Production and Operations Management (3) (Prerequisite: 301 and Mathematics 202) S. Introduction to production and operations component of manufacturing and service organizations, based on the traditional and the contemporary IE standpoint. Topics include: Types of manufacturing systems, Lean Manufacturing, DMAIC, Kanban, queueing theory, and discrete event simulation.

RATIONALE for F and G: The course ENGR 355 was in the original Industrial Engineering curriculum and cross-listed as MGMT 355 and taught by Business faculty to IE students in their second semester of their sophomore year. Since 2016 the course has been taught by Industrial Engineering faculty. In addition, the course has evolved to become the milestone course that designates upper-level engineering students. The change to the new course reflects an update in the title and content of the course. In addition, the number (252) clearly depicts the sophomore level course it is intended to be.

H. MODIFY, on page 114 of the current catalog:

FROM

A major in industrial engineering requires completion of the following:

1. Engineering 101, 201, 220, 301, 310, 320, 330, 350, 355, 356, 373, 420, 467, 468, 470, and 480
2. Physics 200, 201, 202, and 220
3. Mathematics 201, 202, 203, 304, and 306
4. Chemistry 101

5. English 318

6. Economics 203 and 204

In addition to the course requirements above, the student is encouraged to pursue a summer of supervised training at a professionally related site off campus. No additional minor or collateral is required. The minimum number of semester hours required in engineering courses is 51.

The minimum number of semester hours in all courses (major and nonmajor) required for the industrial engineering degree is 122.

Upon earning credit toward graduation (grade of D or better) in ENGR 355, industrial engineering majors receive the designation of "Upper-Level Engineering Students." Upper-Level Engineering Students are subject to higher tuition for their remaining semesters of studies (normally their last 4 semesters) as detailed in the University's Tuition & Fees publication.

TO

A major in industrial engineering requires completion of the following:

7. Engineering 101, 201, 220, 252, 301, 310, 320, 330, 350, 356, 373, 420, 467, 468, 470, and 480

8. Physics 200, 201, 202, and 220

9. Mathematics 201, 202, 203, 304, and 306

10. Chemistry 101

11. English 318

12. Economics 203 and 204

In addition to the course requirements above, the student is encouraged to pursue a summer of supervised training at a professionally related site off campus. No additional minor or collateral is required. The minimum number of semester hours required in engineering courses is 51.

The minimum number of semester hours in all courses (major and nonmajor) required for the industrial engineering degree is 122.

Upon earning credit toward graduation (grade of D or better) in ENGR 252, industrial engineering majors receive the designation of "Upper-Level Engineering Students." Upper-Level Engineering Students are subject to higher tuition for their remaining semesters of studies (normally their last 4 semesters) as detailed in the University's Tuition & Fees publication.

I. MODIFY, on page 115 of the current catalog:

FROM

320 Statistics for Engineers (3) (Prerequisite: 250 or 355; Prerequisite/corequisite: Physics 220) F. This course will introduce students to the theories and engineering applications of statistical methods, data analysis, experimental design, and data visualization. A major objective of this course is to develop students' capabilities to analyze datasets, including the visualization and communication of observations in addition to the application of statistical, mathematical, and probabilistic analytical methods, to engineering challenges.

TO

320 Statistics for Engineers (3) (Prerequisite: 250 or 252; Prerequisite/corequisite: Physics 220) F. This course will introduce students to the theories and engineering applications of statistical methods, data analysis, experimental design, and data visualization. A major objective of this course is to develop students' capabilities to analyze datasets, including the visualization and communication of observations in addition to the application of statistical, mathematical, and probabilistic analytical methods, to engineering challenges.

J. MODIFY, on page 115 of the current catalog:

FROM

330 Engineering Economy (3) (Prerequisite: 250 or 355) S. Concepts and techniques of analysis for evaluating the value of products/services, projects, and systems in relation to their cost. A major objective of this course is to develop the students understanding of economic equivalence, the time value of money, financial uncertainty and financial risk, and the way that these concepts can and should be embedded within engineering decision-making.

TO

330 Engineering Economy (3) (Prerequisite: 250 or 252) S. Concepts and techniques of analysis for evaluating the value of products/services, projects, and systems in relation to their cost. A major objective of this course is to develop the students understanding of economic equivalence, the time value of money, financial uncertainty and financial risk, and the way that these concepts can and should be embedded within engineering decision-making.

K. MODIFY, on page 115 of the current catalog:

FROM

350 Manufacturing Processes (4:3-3) (Prerequisites: 250 or 355; 220, 301, and Mathematics 202) F. An overview of manufacturing processes primarily for metals and alloys, focusing on

fabrication and joining processes. Emphasis will be placed on process capabilities and limitations, with calculation of process parameters for select processes. Also includes topics in additive manufacturing, heat treatment, product design and process planning, design-for-manufacture/assembly, numerical control, and inspection. The laboratory experience will provide manual and computer-aided process techniques, including assembly, machining, casting, welding, sheet metal forming, powder metallurgy, and inspection.

TO

350 Manufacturing Processes (4:3-3) (Prerequisites: 250 or 252; 220, 301, and Mathematics 202) F. An overview of manufacturing processes primarily for metals and alloys, focusing on fabrication and joining processes. Emphasis will be placed on process capabilities and limitations, with calculation of process parameters for select processes. Also includes topics in additive manufacturing, heat treatment, product design and process planning, design-for-manufacture/assembly, numerical control, and inspection. The laboratory experience will provide manual and computer-aided process techniques, including assembly, machining, casting, welding, sheet metal
forming, powder metallurgy, and inspection.

L. MODIFY, on page 115 of the current catalog:

FROM

373 Operations Research (3) (Prerequisite: 355. Prerequisites/Corequisites: Mathematics 304 and Physics 220 or permission of department) S. This course exposes students to linear and integer programming using optimization
(e.g., Simplex, Excel Solver, CPLEX) and heuristic techniques (e.g., Greedy, Genetic). A wide array of standard optimization problems such as Knapsack, Traveling Salesman and Cutting Plane will be discussed using applications from a variety of fields (health care, energy, logistics/transportation, social networking, etc.). Extensions to mixed integer programming and non-linear programming will be introduced in the later stages of the course.

TO

373 Operations Research (3) (Prerequisite: 252. Prerequisites/Corequisites: Mathematics 304 and Physics 220 or permission of department) S. This course exposes students to linear and integer programming using optimization (e.g., Simplex, Excel Solver, CPLEX) and heuristic techniques (e.g., Greedy, Genetic). A wide array of standard optimization problems such as Knapsack, Traveling Salesman and Cutting Plane will be discussed using applications from a variety of fields (health care, energy, logistics/transportation, social networking, etc.). Extensions to mixed integer programming and non-linear programming will be introduced in the later stages of the course.

M. MODIFY, on page 116 of the current catalog:

FROM

420 Human Factors Engineering (3) (Prerequisite: 355) F. Study of work design, human factors, and ergonomics. Provides students with tools and techniques used to design, analyze, and improve working stations, with the goal to improve efficiency and productivity. Topics include: time measurement, workplace ergonomics, environmental design, introduction to cognitive ergonomics, and workplace health and occupational standards.

TO

420 Human Factors Engineering (3) (Prerequisite: 252) F. Study of work design, human factors, and ergonomics. Provides students with tools and techniques used to design, analyze, and improve working stations, with the goal to improve efficiency and productivity. Topics include: time measurement, workplace ergonomics, environmental design, introduction to cognitive ergonomics, and workplace health and occupational standards.

N. MODIFY, on page 116 of the current catalog:

FROM

468 Production Planning (3) (Prerequisite: 250 or 355) F. This course provides an in-depth study of the full spectrum of activities of production managers. Topics covered include forecasting, independent demand inventory management, just-in-time inventory management, materials requirement planning, capacity planning, production activity control, and master production scheduling. Emphasis will be given to the use of personal computers to support decision making. Credit cannot be received for both Engineering 468 and Management 468.

TO

468 Production Planning (3) (Prerequisite: 250 or 252) F. This course provides an in-depth study of the full spectrum of activities of production managers. Topics covered include forecasting, independent demand inventory management, just-in-time inventory management, materials requirement planning, capacity planning, production activity control, and master production scheduling. Emphasis will be given to the use of personal computers to support decision making. Credit cannot be received for both Engineering 468 and Management 468.

RATIONALE for H-N: Reflects the replacement of ENGR 355 with the new course ENGR 252.

O. MODIFY, on page 116 of the current catalog:

FROM

467 Supply Chain Engineering (3) (Prerequisite: 373, Prerequisite/ Corequisite: 468 or permission of department) S. This course will introduce students to the theories and applications of supply chain engineering. Students will learn about supply chain components and metrics as well as how to develop and solve mathematical models to obtain solutions to supply chain challenges. The course will cover supply chain engineering comprehensively and will include discussions on forecasting, transportation, supplier selection, risk, and globalization. Methods in optimization and simulation will be used to implement and integrate these topics into supply chain decision-making.

TO

467 Supply Chain Engineering (3) (Prerequisite: 373, Prerequisite/ Corequisite: 468 or permission of department) F. This course will introduce students to the theories and applications of supply chain engineering. Students will learn about supply chain components and metrics as well as how to develop and solve mathematical models to obtain solutions to supply chain challenges. The course will cover supply chain engineering comprehensively and will include discussions on forecasting, transportation, supplier selection, risk, and globalization. Methods in optimization and simulation will be used to implement and integrate these topics into supply chain decision-making.

RATIONALE for O: This course had been mistakenly listed as a Spring course, but it has been offered in the Fall semesters.

V. Report from the Graduate Council

1. Proposal from the School of Health Sciences - Department of Nursing

A. **MODIFY** on page 190 the following:

FROM:

NURSE EDUCATOR CERTIFICATE
Coordinator: Dr. Dorie Weaver

Nursing offers a Nurse Educator Certificate. Students must be admitted into the FMU graduate program (see "Admission Requirements" page 223). The Nurse Educator Certificate option provides graduate nursing students and advanced practice RNs access to foundational courses in the discipline of nursing education in order to serve in a clinical or academic nurse educator role. Students who have an M.S.N. and complete this certificate program are eligible to take the Certified Nurse Educator Examination (CNE) offered by the National League for Nursing (NLN). For all students completing the series of three (3) courses listed below, a certificate in nursing education will be granted and noted as a "Certificate in Nursing Education" on the student's official FMU transcript. This certificate program will not be a stand-

alone recognition during graduation ceremonies but will be noted when completed along with an M.S.N. degree at FMU.

TO:

NURSE EDUCATOR CERTIFICATE

Coordinator: Dr. Dorie Weaver

Nursing offers a Nurse Educator Certificate. Students must be admitted into the FMU graduate program (see GRADUATE NURSING PROGRAM ADMISSION REQUIREMENTS; in addition to these requirements, students must hold a Master's degree in nursing or be concurrently enrolled in one of FMU's Nurse Practitioner programs). The Nurse Educator Certificate option provides graduate nursing students and advanced practice RNs access to foundational courses in the discipline of nursing education in order to serve in a clinical or academic nurse educator role. Students who have an M.S.N. and complete this certificate program are eligible to take the Certified Nurse Educator Examination (CNE) offered by the National League for Nursing (NLN). For all students completing the series of three (3) courses listed below, a certificate in nursing education will be granted and noted as a "Certificate in Nursing Education" on the student's official FMU transcript. This certificate program will not be a stand-alone recognition during graduation ceremonies.

RATIONALE for A:

These are minor modifications to change language, provide clarification, and more accurately reflect the information.

B. **MODIFY** on page 193 the following:

FROM:

REQUIREMENTS FOR DOCTOR OF NURSING (DNP) PRACTICE DEGREE

To receive a Doctor of Nursing Practice (DNP) degree from FMU, a student must fulfill the following requirements:

• Complete all graduate credit hours within their plan of study, which includes at least 500 clinical/project hours post-master's and at least 1,000 clinical/project hours post-baccalaureate.

TO:

REQUIREMENTS FOR DOCTOR OF NURSING (DNP) PRACTICE DEGREE

To receive a Doctor of Nursing Practice (DNP) degree from FMU, a student must fulfill the following requirements:
• Complete all graduate credit hours within their plan of study, which includes at least 500 clinical~~/project~~ hours post-master's and at least 1,000 clinical~~/project~~ hours post-baccalaureate.

C. **MODIFY** on page 194 the following:

FROM:

DNP 802 Doctoral Health Policy and Leadership (3:2-3) (45 clinical/project hours) This course focuses on public policy in healthcare and the role of the doctorally-prepared nurse as a leader in policy development. Graduate students develop strategies to assume leadership roles and effect patient care outcomes.

TO:

DNP 802 Doctoral Health Policy and Leadership (3:2-3) (45 clinical~~/project~~ hours) This course focuses on public policy in healthcare and the role of the doctorally-prepared nurse as a leader in policy development. Graduate students develop strategies to assume leadership roles and effect patient care outcomes.

D. **MODIFY** on page 194 the following:

FROM:

DNP 804 Ethics and Quality Improvement (3:1-6) (90 clinical/project hours) This course focuses on quality patient outcomes and quality improvement. The course will emphasize ethical healthcare practices that are value-based. This course includes 90 clinical/project hours to explore a healthcare project that would benefit from a well-designed quality improvement protocol.

TO:

DNP 804 Ethics and Quality Improvement (3:1-6) (90 clinical~~/project~~ hours) This course focuses on quality patient outcomes and quality improvement. The course will emphasize ethical healthcare practices that are value-based. This course includes 90 clinical~~/project~~ hours to explore a healthcare project that would benefit from a well-designed quality improvement protocol.

E. **MODIFY** on page 194 the following:

FROM:

DNP 805 Project Development (4:1-9) (135 clinical/project hours) This course assists the graduate student to focus attention on a specific quality improvement project that can be fully investigated and developed into a capstone project. This

course includes clinical/project hours to prepare the graduate student to fully understand the delivery of quality patient care in the advanced practice role.

TO:

DNP 805 Project Development (4:1-9) (135 clinical~~/project~~ hours) This course assists the graduate student to focus attention on a specific quality improvement project that can be fully investigated and developed into a capstone project. This course includes clinical~~/project~~ hours to prepare the graduate student to fully understand the delivery of quality patient care in the advanced practice role.

F. **MODIFY** on page 194 the following:

FROM:

DNP 807 Capstone 1 (4:1-9) (135 clinical/project hours) This course focuses of the planning of an evidence-based practice, quality improvement project. This course assists the graduate student to develop a project that will make a significant improvement in patient care. In addition, the graduate students will begin to formalize a professional portfolio.

TO:

DNP 807 Capstone 1 (4:1-9) (135 clinical~~/project~~ hours) This course focuses of the planning of an evidence-based practice, quality improvement project. This course assists the graduate student to develop a project that will make a significant improvement in patient care. In addition, the graduate students will begin to formalize a professional portfolio.

G. **MODIFY** on page 194 the following:

FROM:

DNP 808 Capstone 2 (4:1-9) (135 clinical/project hours) (Prerequisite DNP 807) This course focuses on the implementation and the evaluation of an evidence-based practice, quality improvement project. The culmination of this course will contain disseminated project results. In addition, the graduate student will complete a professional portfolio.

TO:

DNP 808 Capstone 2 (4:1-9) (135 clinical~~/project~~ hours) (Prerequisite DNP 807) This course focuses on the implementation and the evaluation of an evidence-based practice, quality improvement project. The culmination of this course will contain disseminated project results. In addition, the graduate student will complete a professional portfolio.

RATIONALE for B, C, D, E, F, G:

Recent guidelines from the National Organization of Nurse Practitioner Faculties (NONPF) requires that DNP programs must have a minimum of 1000 **clinical** hours post-baccalaureate and 500 **clinica**l hours post-master's. The changes above are to remove references to project hours so that only clinical hours are counted to keep in compliance with the guidelines.

2. Proposal from the Office of the Provost

A. Add on PAGE 194 of the current catalog, before the Graduate Psychology Program

ADD:

OCCUPATIONAL THERAPY DOCTORATE (OTD)

Director: TBA

The Francis Marion University (FMU) Occupational Therapy Doctorate (OTD) degree is a graduate program with a curriculum focused on preparing entry level practitioners in occupational therapy who are competent, ethics-, and evidence-based clinicians, leaders, and advocates. Curricular themes include the following areas of focus:

a. Commitment to *occupation-based practice* which strongly reflects the holistic nature of the profession's history while subscribing to high standards for incorporating emerging approaches
b. Promotion of *client-centered, community-based programming* to address the health disparities in the region
c. Advancement of *health literacy* across diverse populations
d. Application of research through *knowledge translation and evidence-based practice*.
e. Utilization of *advanced clinical skills with therapeutic use of self*.

APPLICATION

OTD Admission Criteria:

Applicant must have earned a Bachelor's degree in any field with a cumulative G.P.A. of 3.0 or greater and must submit the following:

- Graduate Application

- Official Academic Transcripts from all colleges and universities attended
- A Copy of a Resume or Curriculum Vitae
- Three (3) letters of professional recommendation addressing the candidate's strengths, and ability to succeed in the program with one coming from acurrent supervisor
- Admissions essay (approximately 500 words) describing the following:
    - Area of interest and reason for this area of interest
    - A potential clinical issue that warrants an interventional plan
    - Relevance of this issue to the current healthcare environment
    - Relevance of this issue to the role of the OTD-prepared therapist and the implementation of evidence-based practice

COURSE REPETITION

Progression policies in the OTD program will be in compliance with the FMU catalog for graduate programs. In order for a student to successfully progress through the OTD program, the student must complete his or her degree within a six-year period; achieve course grades of C or better; and maintain a 3.0 cumulative grade point average for all graduate courses.
Students will be allowed to retake one course once due to academic failure.

REQUIREMENTS FOR OCCUPATIONAL THERAPY DOCTORATE (OTD) DEGREE

The curriculum is designed for students who have a bachelor's degree. The following pre- requisite courses will be required:

- 3 credit hours of Introductory Psychology
- 3 credit hours of Human Anatomy
- 3 credit hours of Human Physiology
- 3 credit hours of Statistics

To receive an Occupational Therapy Doctorate degree from FMU, a student must fulfill the following requirements:

- Complete 108 graduate credit hours within the field of study, including Level II fieldwork experiences totaling a minimum of 24 weeks (960 hours) and a doctoral capstone experience for a minimum of 14 weeks (560 hours). These clinical experiences must be completed within 18 months of the didactic curriculum.

- Achieve a 3.0 overall grade point average for all graduate courses.
- Make application for graduation at the beginning of the semester in which thelast course will be taken.

GRADUATE COURSES FOR OCCUPATIONAL THERAPY DOCTORATE (OTD)

OT 500 Introduction to Occupations: Basic and Applied (3) This course will introduce foundational elements of occupational science and the professional standards, ethics, practice models, and settings in which occupational therapy may play a role for groups, individuals, or populations. American Occupational Therapy Association policies and documents, the history of the profession, and roles and responsibilities in various contexts will be addressed.

OT 501 Human Development and Lifespan Occupations (3) In this course, various approaches, including occupational science, will be used to frame the developmental process from birth to death. The role of occupations in impacting this developmental trajectory will be explored.

OT 502 Occupational Science and Analysis (3) This course will introduce the application of the Occupational Therapy Practice Framework: Domain and Process (OTPF) to persons',

groups', and populations' engagement in meaningful occupations. The examination of occupational time use, balance, client factors, performance skills, performance patterns and contexts will be addressed. Historical and current trends from the occupational science literature will be incorporated.

OT 503 Conditions Impacting Health and Wellness (3) This course will include content on the risk factors, etiology, characteristics, and prognoses for the conditions most commonly seen by occupational therapists, whether they are developmental or acquired. The primary manifestations of these conditions, as well as their impact on occupational performance and quality of life will be considered in the context of sociocultural, socioeconomic, and lifestyle choices.
Epidemiological factors that impact the public health and welfare of populations will also be addressed.

OT 510 Applications of Clinical Neuroscience (3) This course will cover the structure and function of the central and peripheral nervous systems, and ways in which faulty processing in these systems can impact functional ability. A particular focus on sensory and motor systems as well as cognitive and emotional processing will be incorporated. Application of content to clinical case studies and the administration of varied neurological assessments is included.

OT 511 Applications of Kinesiology and Biomechanics (3) A detailed application of musculoskeletal anatomy in humans will assist the student in applying the principles of movement, alignment, joint structure, muscle actions, and motor planning as the foundation to assess typical and atypical movement during daily performance. The physics and biomechanical principles supporting occupational therapy interventions, including but not limited to ergonomics, body mechanics,

strengthening, activity adaptations and modifications, will be addressed.

OT 512 The Occupational Profile and Person-Environment Assessment (3) This course will introduce evaluation and assessment processes based in varied theoretical approaches utilized in occupational therapy through the lifespan. Interview techniques, observations, non-standardized and standardized assessments, the evaluation of the environment, and the development and analysis of an occupational profile will be presented. Quantitative and qualitative analysis of data, and the presentation of results that integrates principles of health literacy will be utilized.

OT 513 Theories and Frames of Reference in Occupational Therapy (3) This course will address the models and frames of reference utilized to guide assessment and intervention planning in occupational therapy for persons and groups. Integration of theoretical principles, clinical reasoning, and evidence-based practice, with respect for client-centered practice will advance student skill in professional decision making.

OT 514 Leadership and Management in Occupational Therapy (3) This course will explore leadership and management theories and practices across service delivery environments in occupational therapy. The innovation, promotion, development, implementation, and evaluation of therapy services in traditional and emerging areas will be addressed. Personnel and financial resource management, strategic planning, supervision of personnel, and the development of a professional development plan is addressed.

OT 515 Technologies and Environmental Adaptations (3) This course will focus on assessment and intervention recommendations for modifications in such areas as seating and positioning, environmental adaptations, community access, and assistive technology. Exploration of funding sources, instruction to caregivers and the promotion of interprofessionalism and health literacy will be included.

OT 602 Occupational Justice and Disparities in the Community (3) This course will explore the concepts of health disparity and occupational justice and deprivation from a global, national and local level. Students will analyze ways in which factors such as education, poverty, climate, race, location, and socio-political aspects can be barriers to achieving health, wellness, and the right to pursue meaningful, satisfying, and productive lifestyles. A Level I experience is associated with this course.

OT 602FW Level I Fieldwork 1: Groups (0, P/F) This fieldwork experience will integrate OT602 course concepts and needs assessment in faculty-led group interventions in the regional community. Emphasis will be placed on underserved populations living in the community and/or at-risk populations

OT 603 Mental Health Interventions at Person, Group and Population Levels (4) This course will examine the evidence-based strategies for guiding group development, facilitation, and outcome strategies. Theoretically guided interventions

of psychosocial, behavioral, and interpersonal processes in pediatric and adult populations will be incorporated.

OT 610 Occupational Therapy Intervention Process: Pediatrics (4) This course presents intervention skills required by the occupational therapist that works in a variety of contexts with pediatric clients. The screening, assessment, formulation of intervention plans, treatment implementation, referral to others, discontinuation of services, and documentation of services is included. Methods to promote client-centered, occupation-focused and evidence-based interventions in a culturally relevant manner will be included. Interprofessional learning activities and a Level I Fieldwork experience are associated with this course.

OT 610FW Level I Fieldwork 2 Persons: Pediatrics (0, P/F) This fieldwork experience will integrate OT 610 course concepts while students observe and begin to participate in the intervention process with pediatric clients experiencing occupational dysfunction, under the supervision of a credentialed professional.

OT 611 Occupational Therapy Intervention Process: Adults (4) This course presents intervention skills required by the occupational therapist in variety of contexts with adult clients. The screening, assessment, formulation of intervention plans, treatment implementation, referral to others, discontinuation of services, and documentation of services is included. Methods to promote client-centered, occupation-focused and evidence-based interventions in a culturally relevant manner will be included. Interprofessional learning activities and a Level I Fieldwork experience are associated with this course.

OT 611FW Level I Fieldwork 3: Persons: Adult (0, P/F) This fieldwork experience will integrate OT 611 course concepts while students observe and begin to participate in the

intervention process with adult clients experiencing occupational dysfunction, under the supervision of a credentialed professional.

OT 613 Pre-Fieldwork Clinical Skills (1) This course will address the skills most commonly applied in Level II fieldwork settings in a competency-based approach.

OT 614 Academic and Clinical Competencies (1) The course will integrate experiences to apply curriculum content, as well as current resources in the field to synthesize didactic learning as entry level occupational therapists. A series of practice and content examinations designed to help prepare for the NBCOT Examination and the competency exam prior to the doctoral experiential component will be a focus.

OT 650 Clinical Reasoning and Evidence Based Practice (3) This course will address information literacy skills, the development of strategies for applying evidence-based scholarly research to both the clinical and research arenas. A formalized process for integrating the vast amount of information impacting a clinical scenario will be

introduced and practiced to facilitate skill in clinical reasoning.

OT 651 The Occupational Therapy Research Process (3) This course presents the quantitative and qualitative approaches to research utilized in the occupational therapy profession. The development of critical analysis skills in such areas as research design, reliability, validity, trustworthiness, ethics, instrument selection, and report writing will be facilitated. The Institutional Review Board process will be included.

OT 652 Occupational Therapy Intervention Process: Geriatrics (4) This course presents intervention skills required by the occupational therapist that works in a variety of contexts with geriatric clients. The screening, assessment, formulation of intervention plans, treatment implementation, referral to others, discontinuation of services, and documentation of services is included. Methods to promote client-centered, occupation-focused and evidence-based interventions in a culturally relevant manner will be included. Interprofessional learning activities and a Level I Fieldwork experience are associated with this course.

OT 652FW Level I Fieldwork 4: Populations (0, P/F) This fieldwork experience will integrate OT 652 course concepts while students observe and begin to participate in the intervention process with geriatric clients experiencing occupational dysfunction, under the supervision of a credentialed professional

OT 700 Doctoral Experiential Component Needs Assessment and Development Seminar (2) This course process will facilitate the completion of a literature review and needs assessment to support a capstone project that aligns with the curriculum design and coincides with an experiential component that provides an in depth experience in one or more of the following areas: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development.

OT 701 Doctoral Experiential Component Plan Seminar (2) This seminar course process will facilitate the development of a specific plan for an individualized doctoral experiential

component. The scholarly literature collaboratively developed in OT 700 will serve as the basis to further elaborate on and design an individualized experience and project that meets a community need.

OT 702 The Capstone Proposal and Defense Seminar (2) This course assists the student in developing an evidence-based, outcome-oriented capstone proposal that reflect the unique goals of their project and coincides with the curriculum design and needs of the particular setting where the project will be carried out. A capstone proposal defense, attended by faculty and external mentors will be a primary outcome of this course.

OT 703 Doctoral Experiential and Capstone Prospectus Seminar (2)

Individualized preparatory objectives will be developed and achieved during this course, so that students have the specialized knowledge skills and abilities required to be successful in their doctoral placement and to conduct their capstone project.

OT 750 Program and Curricular Development and Implementation (3) This course will focus on the development of skills to implement a program development and evaluation process in a clinical setting, as well as designing and implementing educational sessions for clinical or academic environments. Skills that support the identification of and competition for funding resources to support services and programming will be developed. The examination of principles of teaching, learning, and instructional design is addressed.

OT 751 Health Models, Public Policy and Advocacy (3) In this course, health models, particularly those addressing population health, global and national issues, will be incorporated. Students will examine the impact of professional, state, and federal public policy and regulation issues on occupational therapy practice. Communication, advocacy, advanced leadership characteristics, and skilled communication and collaboration will be promoted through course content and activities.

OT 752 Advanced Contextual Analysis of Service Provision (3) This course process requires the synthesis of prior clinical and didactic learning to advance professional insight and initiative to support the advanced scholarly and service provision skills required at the doctoral level. The application of advanced concepts to promote dynamic change in persons, groups, populations and systems is explored.

OT 753 Advanced Clinical Skills (3) This course will cover the current and emerging advanced clinical skills that are required of an occupational therapist to work in the 21st century changing healthcare environments. Specific topics will be informed by the experiences seen in the Level II Fieldwork settings, and students will be required to integrate skills in teaching, assessment, and innovation to provide evidence informed programming for their peers.

OT 754 Scholarly Dissemination and Knowledge Translation (3) This course includes content which prepares the student to synthesize curricular projects and outcomes for presentation or publication in a variety of settings or venues. Examples include proposals for conference posters or presentations and submission to trade and scholarly journals.

OT 850 Level II Fieldwork A (9) This in-depth 12-week experiential course requires occupational therapy students to deliver occupational therapy services to clients under the supervision of an approved fieldwork educator with the outcome of producing a competent, entry-level, generalist occupational therapist who integrates evidence, clinical reasoning, and interprofessionalism in the delivery of client-centered, occupation-focused interventions.
Communication with university faculty may occur through learning platforms throughout the experience as necessary.

OTD 851 Level II Fieldwork B (9) This in-depth 12-week experiential course, in a setting complementary to OT 850, requires occupational therapy students to deliver occupational therapy services to clients under the supervision of an approved fieldwork educator with the outcome of producing a competent, entry-level, generalist occupational therapist who integrates evidence, clinical reasoning, and interprofessionalism in the delivery of client-centered, occupation-focused interventions. Communication with university faculty may occur through learning platforms throughout the experience as necessary.

B. Change on page 60 of the current catalog

FROM:

SCHOOL OF HEALTH SCIENCES

Healthcare Administration (B.S., no minor or collateral) (see page 162)

Nursing (B.S.N. Pre-licensure, R.N. to B.S.N. Track, M.S.N., no minor or collateral)

Doctor of Nursing Practice (DNP)

Physician Assistant Studies Program (M.S.P.A.S., no minor or collateral)

Speech-Language Pathology Program (M. SLP., no Minor or collateral)

TO:

SCHOOL OF HEALTH SCIENCES

Healthcare Administration (B.S., no minor or collateral) (see page 162)

Nursing (B.S.N. Pre-licensure,

R.N. to B.S.N. Track, M.S.N.,

no minor or collateral)

Doctor of Nursing Practice (DNP)

Occupational Therapy

Doctorate (OTD)

Speech-Language Pathology

Program (M.SLP., no Minor

or collateral)

C. Change on Page 174 of the current catalog

FROM:

GRADUATE DEGREES

Nursing

Doctor of Nursing Practice (D.N.P.)

Adult-Gerontology Acute Care Nurse-Practitioner

Program (Master of Science in Nursing

[M.S.N.])

Family Nurse Practitioner (Master of Science in

Nursing [M.S.N])

Nurse Educator (Master of Science in Nursing [M.S.N])

Psychiatric Mental Health Nurse Practitioner

Program (Master of Science in Nursing

[M.S.N.])

Certificate in Nursing Education (Post-baccalaureate or Post-Masters)

Physician Assistant Studies

Physician Assistant (Master of Science in Physician Assistant Studies

[M.S.P.A.S])

Speech-Language
Pathology

(Master of Speech-Language Pathology [M.SLP.])

TO:

GRADUATE DEGREES

Nursing

Doctor of Nursing Practice

(D.N.P.) Adult-

Gerontology Acute Care

Nurse-

Practitioner Program (Master of Science in

Nursing [M.S.N.])

Family Nurse Practitioner (Master of

Science in Nursing [M.S.N])

Nurse Educator (Master of Science in

Nursing [M.S.N]) Psychiatric Mental Health

Nurse

Practitioner Program (Master of

Science in Nursing [M.S.N.])

Certificate in Nursing Education (Post-baccalaureate or Post-Masters)

Occupational Therapy

Occupational Therapy Doctorate (OTD)

Speech-Language Pathology

(Master of Speech-Language Pathology [M.SLP.])

3. **Proposals from the School of Health Sciences - Department of Speech–Language Pathology Program**

A. **MODIFY** credit hours and description on page 201 in the online Catalog and page 207 in paper Catalog

FROM:

595: Medical Aspects of Speech-Language Pathology (3) This course will provide students in medical field placements with knowledge regarding service delivery models, reimbursement issues, documentation requirements, assessment approaches, goal setting, interdisciplinary team approaches, prioritizing treatment concerns, and discharge planning. Case study presentations and discussions will be generated from students' field placement experiences.

TO:

595: Medical Aspects of Speech-Language Pathology (1) This course will provide knowledge regarding service delivery models, reimbursement issues, documentation requirements, assessment approaches, establishing goals, interdisciplinary team approaches, prioritizing treatment, and discharge planning.

RATIONALE:

- The change in credit hours from 3 to 1 more accurately reflects the amount of content required for the course. The proposed decrease will eliminate redundancy within the curriculum and cover topics that are not addressed in other medically-related courses.

- The change in course description reflects content to be covered within the course for 1 credit hour.

B. **MODIFY** credit hours on page 202 in the online Catalog and page 207 in paper Catalog

FROM:

617: Fluency Disorders (1) This course explores the theoretical and diagnostic approaches to the modification of speech disfluencies. Students will learn to identify typical and atypical disfluencies as they relate to speech production, and will learn to assess and diagnose stuttering and cluttering across the lifespan.

TO:

617: Fluency Disorders (3) This course explores the theoretical and diagnostic approaches to the modification of speech disfluencies. Students will learn to identify typical and atypical disfluencies as they relate to speech production, and will learn to assess and diagnose stuttering and cluttering across the lifespan.

RATIONALE:

- The change in credit hours from 1 to 3 more accurately reflects the breadth of information required for the course.

C. **MODIFY** credit hours and description on page 202 in the online Catalog and page 207 in paper Catalog

FROM:

630: Research Methods II: Capstone Project (3) (Prerequisite: SLP 567) This course will increase knowledge of applied research and research design, data collection and analysis, and presentation of results. By the end of this course the MSLP student must have completed his/her Capstone Research Project.

TO:

630: Research Methods II: Capstone Project (1), (2), or (3) (Prerequisite: SLP 567) This course will increase knowledge of applied research and include research design, data collection, analysis, and presentation of results. By the end of this course, students must have completed the Capstone Project. This course can be repeated more than once for a total of 3 credit hours.

RATIONALE:

- Offering the course with 1, 2, or 3 hours of credit allows flexibility in the development of research topics for students working on capstone projects.
- The change in course description reflects content required for the course.