

**MINUTES  
FACULTY SENATE MEETING  
March 30, 2021**

**I. Meeting was called to order by Chair Gourley at 3:47 pm**

Members present: All senators were present (except Yanson – excused; Nelson – unexcused)

Others present: Norman, O’Kelley, Peterson, Gittings, Clabo, Steadman, Bauer, Kelley, Murphy

**II. Minutes from the February 9, 2021 meeting were approved as posted**

**III. Report from the Executive Committee**

Dr. Carter’s meetings with both of the Legislative Higher Education Finance Sub-committees went very well. There are presently no additional recurring funds available. So far there have only been two mentions of state employee raises: K-12 and Law Enforcement. FMU will continue all current safety measures through summer school (class distancing and masking policies), however, it seems that some of our sister institutions are moving in the direction of removing all covid-19 safety precautions. The number of campus covid-19 cases continue to remain very low after our early January spike in numbers. The Faculty Awards dinner will be April 22 at the PAC. Like last Fall, the recipients will be notified that they have won an award but will not be told which award and they and family are invited to an awards dinner. Final faculty meeting will be held in Chapman Auditorium on Tuesday, April 6<sup>th</sup> @ 3:45 pm and the final senate meeting will be Thursday, April 22 in Lowrimore Auditorium @ 3:45 pm. This one will be face-to-face.

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

**1. Proposals from the Department of Biology – *All items passed as written.***

- A. Add 491
- B. Modify Major in Biology
- C. Modify Biology Secondary Education Option
- D. Modify Four Year Plan for Biology Secondary Education Option

**2. Proposals from the Department of Mathematics – *All items passed; Item B passed as adjusted in the attachment.***

- A. Modify Teacher Licensure Option
- B. Modify Number of Hours for Teacher Licensure Option

**3. Proposals from the Department of Chemistry - *All items passed as written.***

- A. Modify 403
- B. Modify 498
- C. Delete 101

- D. Add 111
- E. Add 111L
- F. Delete 102
- G. Add 112
- H. Add 112 L
- I. Modify 201-202
- J. Modify 301-302
- K. Modify Repeating Courses
- L. Modify Course Listings and Numberings
- M. Modify 203
- N. Modify 297
- O. Modify Chemistry Major
- P. Modify ACS-certified Chemistry Major
- Q. Modify Environmental Science Option
- R. Modify Pre-Pharmacy Option
- S. Modify Forensic Science Option
- T- EE. Modify descriptions in the Department of Biology to include the course changes
- FF-OO. Modify descriptions in the Department of Physics and Engineering to include the course changes.
- PP. Modify descriptions in Middle Level Education to include the course changes
- QQ – RR. Modify descriptions for Pre-Nursing to include the course changes
- SS. Modify descriptions for Pre-Dental Curriculum to include the course changes
- TT. Modify descriptions for Pre-Pharmacy Curriculum to include the course changes
- UU. Modify descriptions for Pre-Medical Curriculum to include the course changes
- VV. Modify descriptions for Pre-Physical Therapy Curriculum to include the course changes
- WW. Modify descriptions for Pre-Physician Assistant Curriculum to include the course changes
- XX. Modify descriptions for Arrangement in Medical Technology to include the course changes
- YY. Modify descriptions for Arrangement in Pharmaceutical Studies to include the course changes
- ZZ. Modify catalog anywhere the proposed course changes may incidentally appear.

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

**1. Proposals from the School of Education - All items passed as written.**

- A. Delete Art 501, 600; Biology 501, 515, 602, 615
- B. Add EDUC 759
- C. Modify EDUC 762 course description
- D. Modify course listing for program
- E. Modify EDUC 737 course description
- F. Modify EDUC 746 course description

- G. Modify EDUC 764 course description
- 2. Proposals from Department of Nursing - *All items passed as written.***
  - A-Y. Deletion of schedule for courses
- 3. Proposals from the Department of Speech-Language Pathology - *All items passed as written.***
  - A. Modify SLP 542 course description
  - B. Modify SLP 591 course description
  - C. Add SLP 543
  - D. Modify SLP 537 course description
  - E. Modify SLP 507 course description
  - F. Modify SLP 510 course description
  - G. Modify SLP 515 course description
  - H. Modify Program
- 4. Proposals from the Department of Psychology - *All items passed as written.***
  - A. Add PSY 505
  - B. Add PSY 506
  - C. Modify listing of courses
  - D. Change information concerning application date
- VI. Old Business - NONE**
- VII. New Business - NONE**
- VIII. Announcements – Various upcoming events were discussed.**
- IX. Meeting was adjourned by Chair Gourley at 4:30 pm**

**Attachment to the Faculty Senate Agenda – March 30, 2021**

**IV. Report from the Academic Affairs Committee**

**1. Proposals from the Department of Biology**

- A. **ADD** on page 67 of the current catalog the new course

**491 Research for the Secondary Educator (1). (1:3) (Prerequisite: 105/115 or 107 and 106 or 108 or permission of the department) Students devise and carry out an independent research project that can be translated for use in a high school science classroom. The research will address a scientific question and will be formatted as a citizen science project, with open-ended outcomes. Open only to biology majors pursuing the secondary education option.**

**RATIONALE:** This course will teach biology secondary education students to devise novel research questions, carry out research aims and goals, and how to implement a citizen-science research project in a classroom. The course will help our secondary biology students to round out their education as scientist-educators.

**B. MODIFY** on page 64 of the current catalog

**FROM**

Biology Course Requirements.....	49 hours
Introductory Biology	
Biology 105/115 or 107 AND 106 or 108.....	8
Cell & Molecular Biology: one course from Biology 220, 301.....	4
<b>Plant Biology: One course from</b>	
<b>Biology 206, 207, 208, 303, 307, 313, 320.....</b>	<b>4</b>
Ecology: One course from	
Biology 308, 317, 318, 402, 411, 412 .....	4
Genetics: One course from Biology 401, 409 .....	4
Biological Research Methods	
<b>Biology 413 and 497 (concurrent) .....</b>	<b>4</b>
<b>Biology Electives: one course from</b>	
<b>Biology 205, 215, 236, 311, 406 .....</b>	<b>4</b>

**TO**

Biology Course Requirements.....	49 hours
Introductory Biology	
Biology 105/115 or 107 AND 106 or 108.....	8
Cell & Molecular Biology: one course from Biology 220, 301.....	4
<b>Organismal Biology: One course from</b>	
<b>Biology 201, 202, 206, 207, 208, 209, 303, 307, 311, 312, 313, 315, or 320.....</b>	<b>4</b>
Ecology: One course from	
Biology 308, 317, 318, 402, 411, 412 .....	4
Genetics: One course from Biology 401, 409 .....	4
Biological Research Methods	
<b>Biology 413 and 491 .....</b>	<b>4</b>

**Biology Electives: Four semester hours of 200 level or above Biology courses...4**

**RATIONALE:** The change from requiring a Plant course to an Organismal course reflects a change in the Biology Major made last year. This change was made because of new course offerings and to give students flexibility in completing the program.

Biology 497 Special Studies is removed as a requirement and 491, a new course, is added. Typically, 497 is a course in which a professor recruits a student to work with them on an independent research project in their area of expertise. The secondary option has quickly outgrown the feasibility of requiring this. Biology 491 *Research for the Secondary Educator* is custom designed for secondary option students to get experience designing and carrying out experiments that will translate well to the classroom.

Removing specific courses from the list of electives students are able to take adds a great deal of flexibility to the program. It better aligns with the Biology Major requirements. It also recognizes that students have a wide array of interests. Giving pre-service teachers the opportunity to foster a scientific interest is likely to translate well to their future classrooms. All of these changes make it easier for a student to transfer into the Secondary Education Option without adding semester(s) to their course plans. It makes the option more flexible for all of the students in the program.

**C. MODIFY on page 64 of the current catalog**

**FROM**

Education Requirements . . . . .	42 hours
Pre-Professional Education . . . . .	7 hours
Education 190/191 (corequisites) . . . . .	4
Education 305 . . . . .	3
Professional Education . . . . .	20 hours
Education 310 . . . . .	3
Education 311 . . . . .	3
Education 313 . . . . .	1
Education 322 . . . . .	3

**TO**

Education Requirements . . . . .	42 hours
Pre-Professional Education . . . . .	7 hours
Education 190 . . . . .	3
Education 192 . . . . .	3
Professional Education . . . . .	20 hours
Education 310 . . . . .	3
Education 311 . . . . .	3

Education 313 .....	1
Education 322 .....	3

D. **MODIFY** on page 79 of the current catalog

**FROM**

**FOUR YEAR PLAN FOR BIOLOGY MAJORS:  
BIOLOGY SECONDARY EDUCATION OPTION**

Freshman Year			
Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.
English 101 (or English 101E)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132 or higher	3
Biology 105 and 115, or 107	4	Biology 106 or 108	4
Chemistry 101	4	Chemistry 102	4
		Art 101, Music 101, Theater 101	3
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>17</b>
Sophomore Year			
Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.
History	3	Speech 101	3
Social Science Elective	3	Political Science 101 or 103	3
Literature	3	<b>Education 305</b>	<b>3</b>
<b>Education 190/191</b>	<b>4</b>	Biology (Organismal)	4
Chemistry 201	4	Biology (Cell)	4
<b>Total Credits</b>	<b>17</b>	<b>Total Credits</b>	<b>17</b>

**TO**

**FOUR YEAR PLAN FOR BIOLOGY MAJORS:  
BIOLOGY SECONDARY EDUCATION OPTION**

Freshman Year			
Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.

English 101 (or English 101E)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132 or higher	3
Biology 105 and 115, or 107	4	Biology 106 or 108	4
Chemistry 101	4	Chemistry 102	4
		Art 101, Music 101, Theater 101	3
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>17</b>
<b>Sophomore Year</b>			
<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
History	3	Speech 101	3
Social Science Elective	3	Political Science 101 or 103	3
Literature	3	<b>Education 192</b>	<b>3</b>
<b>Education 190</b>	<b>3</b>	Biology (Organismal)	4
Chemistry 201	4	Biology (Cell)	4
<b>Total Credits</b>	<b>16</b>	<b>Total Credits</b>	<b>17</b>

**RATIONALE for C and D:** This reflects a change made last year by the school of education. Education 191 is no longer offered and Education 305 has replaced Education 192.

## 2. Proposals from the Department of Mathematics

A. **MODIFY** on p. 105 under Pre-Professional Education

### **FROM**

Pre-Professional Education	7 hours	7 hours
Education 190, 191	4	4
Education 190 and Education 191 are corequisites		
<del>Education 305</del>	3	<del>3</del>

### **TO**

Pre-Professional Education	6 hours	6 hours
Education 190	3	3
Education 192	3	3

B. **MODIFY** on pp. 105 – 106 after Collateral Requirement.

## **FROM**

It is strongly recommended that all mathematics majors take Physics 201 and 202. The minimum number of semester hours required in major courses for a major in mathematics is 33 for the Mathematical Sciences Option and 36 for the Teacher Licensure Option. The minimum number of semester hours in all courses (major and non-major) required for the major in mathematics is 120 (**122** for Teacher Licensure Option if the collateral is chosen in a biological or physical science).

## **TO**

It is strongly recommended that all mathematics majors take Physics 201 and 202. The minimum number of semester hours required in major courses for a major in mathematics is 33 for the Mathematical Sciences Option and 36 for the Teacher Licensure Option. The minimum number of semester hours in all courses (major and non-major) required for the major in mathematics is 120 (**121** for Teacher Licensure Option if the collateral is chosen in a biological or physical science).

**RATIONALE for A and B:** These changes reflect the deletion of 191 and 305 and the addition of 192 by the School of Education.

### **3. Proposals from the Department of Chemistry**

- A. **MODIFY** on page 74 of the current catalog the course description of Chemistry 403, Advanced Synthesis and Characterization Laboratory

#### **FROM:**

**403 Advanced Synthesis and Characterization Laboratory (2:6)** (Prerequisite: **Chem-301**; **Corequisite Chem** 402 or permission of department)

S. This laboratory-only course provides hands-on instruction in the synthesis, purification, and characterization of micro and macromolecular inorganic and organic chemical systems. Emphasis will also be placed on applications in the modern world. Materials to be synthesized and studied include inorganic and organic polymers, compounds, macromolecular materials, and nanoparticles.

#### **TO:**

**403 Advanced Synthesis and Characterization Laboratory (2:6)** (**Prerequisite: 301**; **corequisite 402** or permission of department)

S. This laboratory-only course provides hands-on instruction in the synthesis, purification, and characterization of micro and macromolecular inorganic and organic chemical systems. Emphasis will also be placed on applications in the



modern world. Materials to be synthesized and studied include inorganic and organic polymers, compounds, macromolecular materials, and nanoparticles.

- B. **MODIFY** on page 75 of the current catalog the course description of Chemistry 498, Chemistry Internship

**FROM:**

**498 Chemistry Internship** (1) or (2) (Prerequisite: **Chemistry-202** and permission of department) F, S, SU. Students are introduced to independent practical work under the direction of a professional chemist which may include research or other related laboratory service. Students are required to keep a daily journal and complete a final report. A maximum of three semester hours of credit may be earned toward graduation.

**TO:**

**498 Chemistry Internship** (1) or (2) (Prerequisite: **202** and permission of department) F, S, SU. Students are introduced to independent practical work under the direction of a professional chemist which may include research or other related laboratory service. Students are required to keep a daily journal and complete a final report. A maximum of three semester hours of credit may be earned toward graduation.

**RATIONALE for A-B:** The course descriptions are modified to clarify the wording of the prerequisite.

- C. **DELETE** on page 74 of the current catalog under “Chemistry Courses” the course description of Chemistry 101

**101 General Chemistry I: General Concepts in Chemistry** (4:3-3) (Prerequisite/Corequisite Mathematics 111 (or 111E)) F, SU. The states of matter, including the gas laws; stoichiometry; electronic structure and bonding; periodicity; solutions.

- D. **ADD** on page 74 of the current catalog Chemistry 111 General Chemistry I: General Concepts in Chemistry (3:3) (Prerequisite/corequisite Mathematics 111 (or 111E))

**111 General Chemistry I: General Concepts in Chemistry** (3:3) (Prerequisite/corequisite Mathematics 111 (or 111E)) F, S, SU. The states of matter, including the gas laws; stoichiometry; electronic structure and bonding; periodicity; solutions.

- E. **ADD** on page 74 of the current catalog Chemistry 111L General Chemistry I Laboratory: General Concepts in Chemistry (1:3) (Prerequisite/corequisite Mathematics 111 (or 111E) and Chemistry 111)

**111L General Chemistry I Laboratory: General Concepts in Chemistry (1:3)** (Prerequisite/corequisite 111 and Mathematics 111 (or 111E)) F, S, SU. Introductory laboratory experiments reinforce concepts from Chemistry 111 as well as description and explanation of observed reactions, measurements, calculations, proper use of laboratory equipment and laboratory safety.

**RATIONALE for C- E:** Currently, Chemistry 101 combines the lecture and the laboratory as one course (4 credit hours). This change allows the separation of the lecture and the lab. Students who currently fail lecture but not lab have to repeat both. Separate grades for lecture and laboratory is common practice at other universities. Our waiting list for general chemistry courses is currently dependent on the laboratory courses because laboratory course enrollment is limited for safety concerns. This change assigns a new course number to distinguish this new 3 credit hour course from the previous 4 credit hour course and includes the offering of the course in the spring as we have been doing for several years. Separating the laboratory requires creating a new course listing for the laboratory.

There is no change in the content of the course or the prerequisites, only the way it is listed.

- F. **DELETE** on page 74 of the current catalog under “Chemistry Courses” the course description of Chemistry 102

**102 General Chemistry II: Introduction to Inorganic Chemistry (4:3-3)** (Prerequisite: 101) S, SU. Oxidation-reduction, equilibria, electrochemistry, thermodynamics, acids and bases, kinetics, chemistry of the representative elements, coordination compounds of the transition elements, nuclear chemistry.

- G. **ADD** on page 74 of the current catalog Chemistry 112, General Chemistry II: Introduction to Inorganic Chemistry (3:3) (Prerequisites: 111 and 111L)

**112 General Chemistry II: General Concepts in Chemistry (3:3)** (Prerequisites: 111 and 111L) F, S, SU. Oxidation-reduction, equilibria, electrochemistry, thermodynamics, acids and bases, kinetics, chemistry of the representative elements, coordination compounds of the transition elements, nuclear chemistry

- H. **ADD** on page 74 of the current catalog Chemistry 112L, General Chemistry II Laboratory: General Concepts in Chemistry (1:0-3) (Prerequisites 111 and 111L; Prerequisite/corequisite 112)

**112L General Chemistry II Laboratory: General Concepts in Chemistry**

(1:3) (Prerequisites 111 and 111L; prerequisite/corequisite 112) F, S, SU.

Introductory laboratory experiments reinforce concepts from Chem 112 as well as description and explanation of observed reactions, measurements, calculations, proper use of laboratory equipment and laboratory safety.

**RATIONALE for F-H:** Currently, Chemistry 102 combines the lecture and the laboratory as one course (4 credit hours). This change allows the separation of the lecture and the lab. Students who currently fail lecture but not lab have to repeat both. Separate grades for lecture and laboratory is common practice at other universities. Our waiting list for general chemistry courses is currently dependent on the laboratory courses because laboratory course enrollment is limited for safety concerns. This change assigns a new course number to distinguish the new 3 credit hour course from the previous 4 credit hour course and includes the offering of the course in the fall as we have been doing for several years. Separating the laboratory requires creating a new course listing for the laboratory.

There is no change in the content of the course but prerequisites are changed to reflect the separation of the lecture and lab from Chemistry 101 to Chemistry 111 and 111L and includes the prerequisite/corequisite of Chemistry 112.

- I. **MODIFY** on page 74 of the current catalog the course description of Chemistry 201-202, Organic Chemistry I and II

**FROM:**

**201-202 Organic Chemistry I and II** (4:3-3) (Prerequisite: 102) 201 F, SU; 202 S, SU. The structure, properties, and important reactions of organic compounds. Major topics are hydrocarbons, aromatics, halides, alcohols, acids, esters, aldehydes and ketones, amines, stereochemistry, carbohydrates, proteins, IR and NMR spectroscopy, and chemical literature.

**TO:**

**201 Organic Chemistry I** (4:3-3) (Prerequisites: 112 and 112L) F, S, SU The structure, properties, synthesis, and reactions of organic compounds, and their characterization by IR and NMR spectroscopies. Organic molecules studied include alkanes, alkenes, alkynes, and aromatics. The lab emphasizes separation, purification, and identification of organic compounds by physical, chemical, and spectroscopic means. Use of the chemical literature is introduced.

**202 Organic Chemistry II** (4:3-3) (Prerequisite: 201) S, SU. The structure, properties, synthesis, and reactions of additional classes of organic compounds and their characterization. Molecules studied include alkyl halides, alcohols, ethers, thiols, aldehydes, ketones, carboxylic acids, acyl halides, esters, amides, anhydrides, amines, carbohydrates, amino acids, and proteins. The lab includes the synthesis and characterization of several classes of organic compounds, with emphasis on the use of IR, NMR, and UV-Vis spectroscopies and mass spectrometry. Use of the chemical literature is reinforced.

**RATIONALE:** There is no change at all in course content or terms in which the courses are offered. The separation of the previously hyphenated two-course sequence into two different course descriptions simply follows the current practice both within the department and across campus and eliminates this deprecated mode of describing two-semester course sequences. The course descriptions are expanded slightly to more accurately describe the separated courses and their content. The prerequisites for Chemistry 201 are changed to reflect the separation of the lecture and lab from Chemistry 102 to Chemistry 112 and 112L. The prerequisite of Chemistry 201 for Chemistry 202 is added as well as the Spring offering of Chemistry 201 since it has been offered F, S, SU for several years.

- J. **MODIFY** on page 74 of the current catalog the course description of Chemistry 301-302, Physical Chemistry I and II

**FROM:**

**301-302 Physical Chemistry I and II** (4:3-3) (Prerequisite: 202, Physics 202, and Mathematics 202 or permission of department; Corequisite: 203 and Mathematics 203) 301F, 302S. The states of matter, thermodynamics, equilibria, solutions and colligative properties, phase rule, conductance and electrochemistry, kinetics, quantum chemistry, atomic and molecular structure and chemical bonding, photochemistry. [Before enrolling in Chemistry 301, a student must have a 2.0 cumulative average in all courses prerequisite to Chemistry 301. (For information, courses prerequisite to Chemistry 301 are Chemistry 101-102, 201-202, Mathematics 201, 202, and Physics 201-202.)]

**TO:**

**301 Physical Chemistry I** (4:3-3) (Prerequisite: 202, Physics 202, and Math 202 or permission of department; Corequisite: 203 or permission of department) F. The states of matter, thermodynamics, equilibria, solutions and colligative properties, phase rule, conductance, and electrochemistry. The lab contact reinforces lecture material, including gas laws, and combustion and solution calorimetry. [Before enrolling in Chemistry 301, a student must have a 2.0 cumulative grade point average in all courses prerequisite to Chem 301.]

**302 Physical Chemistry II** (4:3-3) (Prerequisite: 301 and Math 203 or permission of department; corequisite: 303) S. Quantum mechanics, computational chemistry, spectroscopy, statistical mechanics and thermodynamics, and kinetics. The lab contact reinforces lecture material, including NMR and IR spectra, in addition to inorganic synthesis and characterization.

**RATIONALE:** There is no change at all in course content, prerequisites, or terms in which the courses are offered. The separation of the previously hyphenated two-course sequence into two different course descriptions simply follows the current practice both within the department and across campus and eliminates this deprecated mode of describing two-semester course sequences. The course descriptions are expanded slightly to more accurately describe the separated courses and their content.

K. **MODIFY** page 54 of the current catalog under “Repeating Courses,” paragraph 3

**FROM:**

A student may not repeat for credit a 100- or 200-level language course for a higher grade once he/she has received credit for another course at a higher level in the same language. A student also may not repeat the lower level course of any subject in a hyphenated sequence (e.g. Chemistry 201 or Chemistry 301) for a higher grade once he/she has received credit for the higher level course (e.g. Chemistry 202 or 302).

**TO:**

A student may not repeat for credit a 100- or 200-level language course for a higher grade once he/she has received credit for another course at a higher level in the same language.

**RATIONALE:** As far as we are aware, the only remaining hyphenated course sequences in the current catalog were Chemistry 201-202 and 301-302. By removing the hyphens from these course numbers (*vide supra*), this sentence related to repeated courses is no longer needed.

L. **MODIFY** page 61 of the current catalog, under “Course Listings and Numberings”

**FROM:**

When two courses are listed under a single title, a hyphen (–) between the course numbers indicates that the first is prerequisite to the second. A comma (,) between the course numbers indicates that the first is not prerequisite to the second.

**TO:**

When two courses are listed under a single title, a comma (,) between the course numbers indicates that the first is not prerequisite to the second.

**RATIONALE:** As far as we are aware, the only remaining hyphenated course sequences in the current catalog were Chemistry 201-202 and 301-302. By removing the hyphens from these course numbers (*vide supra*), this sentence related to hyphenated courses is no longer needed.

- M. **MODIFY** on page 74 of the current catalog the course description of Chemistry 203, Analytical Chemistry I

**FROM:**

**203 Analytical Chemistry I: Quantitative Analysis** (4:3-4) (Prerequisite: 102) F. Solution equilibria; evaluation of analytical data; precipitation theory and precipitate formation; volumetric and gravimetric principles; acids, bases, and neutralization; oxidation-reduction; electroanalysis; photometry; complexation analysis; methods of separation.

**TO:**

**203 Analytical Chemistry I: Quantitative Analysis** (4:3-4) (Prerequisites: 112, 112L) F. Solution equilibria; evaluation of analytical data; precipitation theory and precipitate formation; volumetric and gravimetric principles; acids, bases, and neutralization; oxidation-reduction; electroanalysis; photometry; complexation analysis; methods of separation.

- N. **MODIFY** on page 74 of the current catalog the course description of Chemistry 297, Introduction to Research in Chemistry

**FROM:**

**297 Introduction to Research in Chemistry** (1), (2), or (3) (Prerequisites: Chemistry 102 and permission of department) F, S, SU. Students are introduced to a variety of techniques of chemical research, including synthesis, spectroscopy, chemical literature searching, and molecular modeling. The focus of the course is on using the tools of chemical research in practical applications to problems rather than on theoretical aspects of the methods. Faculty involved in undergraduate research introduce their research interests and methods and the contributions undergraduates students could make. Students complete both a written report and an oral presentation on a research topic or method of interest. A maximum of three semester hours of credit may be earned toward graduation.

**TO:**

**297 Introduction to Research in Chemistry** (1), (2), or (3) (Prerequisites: **112 and 112L** and permission of department) F, S, SU. Students are introduced to a variety of techniques of chemical research, including synthesis, spectroscopy, chemical literature searching, and molecular modeling. The focus of the course is on using the tools of chemical research in practical applications to problems rather than on theoretical aspects of the methods. Faculty involved in undergraduate research introduce their research interests and methods and the contributions undergraduates students could make. Students complete both a written report and an oral presentation on a research topic or method of interest. A maximum of three semester hours of credit may be earned toward graduation.

**RATIONALE for M and N:** The prerequisites are changed to reflect the separation of the lecture and lab from Chemistry 102 to Chemistry 112 and 112L.

O. **MODIFY** the description of the Chemistry major on page 72 of the current catalog

**FROM:**

The **current** chemistry curriculum consists of two tracks. The first is the track leading to the **basic or minimal** chemistry major. The second track is the curriculum leading to the American Chemical Society (ACS) certified degree. The ACS-certified degree requires additional advanced course work in chemistry and mathematics, as well as undergraduate research.

Those students completing either of the two major tracks offered by the Department of Chemistry are prepared to enter into any number of career choices. These include work in local, regional, and national industries **and** with governmental agencies and **entrance into** graduate or professional schools.

**MAJORS**

**BASIC MAJOR**

A **basic** major in chemistry includes the following:

1. Chemistry course requirements
  - a) eight hours of introductory courses: Chemistry **101-102**
  - b) a minimum of 28 hours beyond the 100 level, including Chemistry **201-202**, 203, **301-302**, 303, 402, and 499
2. Minor/collateral requirements (two options)
  - a) two 12-hour collaterals approved by the faculty adviser (physics, mathematics, or computer science should be considered; pre- medical or pre-dental students should also consider biology)
  - b) an 18-hour minor approved by the faculty adviser preferably from either:

- i. physics, recommended for students who plan to attend graduate school
- ii. biology, recommended for pre-medical or pre-dental students
- iii. mathematics or computer science

3. Other requirements for a basic major in chemistry include Mathematics 201, 202, and 203 and Physics 201 and 202
4. General Education courses for all Bachelor of Science degrees

### **TO:**

The chemistry curriculum consists of two tracks. The first is the track leading to the traditional chemistry major. The second track is the curriculum leading to the American Chemical Society (ACS) certified degree. The ACS-certified degree requires additional advanced course work in chemistry and mathematics, as well as undergraduate research.

Those students completing either of the two major tracks offered by the Department of Chemistry are prepared to enter into any number of career choices. These include work in local, regional, and national industries, with governmental agencies, and graduate or professional schools.

### **MAJOR**

A major in chemistry includes the following:

1. Chemistry course requirements
  - a) eight hours of introductory courses: Chemistry 111, 111L, 112, and 112L
  - b) a minimum of 28 hours beyond the 100 level, including Chemistry 201, 202, 203, 301, 302, 303, 402, and 499
2. Minor/collateral requirements (two options)
  - a) two 12-hour collaterals approved by the faculty adviser (physics and mathematics are recommended; pre-medical or pre-dental students should also consider biology)
  - b) an 18-hour minor approved by the faculty adviser preferably from either:
    - i. mathematics or physics (recommended for students who plan to attend graduate school)
    - ii. biology (recommended for pre-medical or pre-dental students)
3. Other requirements for a major in chemistry include
  - a) Mathematics 201 and 202
  - b) One course selected from Mathematics 203, 301, 304, or 306
  - c) Physics 201 and 202
4. General Education courses for the Bachelor of Science degree

**RATIONALE:** These changes are to update the description of the Chemistry major and to clarify the wording of the Chemistry course requirements, minor/collateral requirements, and other requirements for a Chemistry major. There are no changes to the major itself or any courses required for the major. The



course number changes reflect the separation of the lecture and the lab for the general chemistry sequence, the separation of hyphenated courses, and the clarification and flexibility of allowing Math courses beyond Math 203. Computer Science is no longer recommended as a minor or collateral.

- P. **MODIFY** the descriptions of the ACS-certified Chemistry major, Chemistry minor, and Chemistry collateral on page 72 of the current catalog

**FROM:**

An ACS-certified major in chemistry requires:

1. Chemistry course requirements
  - a) thirty-eight hours of Chemistry 101,102, 201, 202, 203, 301, 302, 303, 402, and 404
  - b) Chemistry 403, two credit hours of Chemistry 497 or 498, and Chemistry 499. In addition, a minimum of 5 credit hours of additional in-depth chemistry courses from Chemistry 405, 407, or 408 are required.
2. Minor/collateral requirements (two options)
  - a) two 12-hour collaterals approved by the faculty adviser (physics, mathematics, or computer science should be considered; pre-medical or pre-dental student should also consider biology)
  - b) an 18-hour minor approved by the faculty adviser preferably from either:
    - i. physics, recommended for students who plan to attend graduate school
    - ii. biology, recommended for pre-medical or pre-dental students
    - iii. mathematics or computer science
3. Other requirements for an ACS-certified major in chemistry include Mathematics 201, 202, 203, 301, 306; Physics 201 and 202
4. General Education courses required for all Bachelor of Science degrees

The minimum number of semester hours required in major courses for a basic major in chemistry is 36; for an ACS-certified major in chemistry, the minimum is 48. The minimum number of semester hours in all courses (major and non-major) required for the basic major in chemistry is 120; for the ACS-certified major in chemistry, the minimum is 132.

Students majoring in chemistry and planning to enter graduate school should take French. Students planning such advanced studies should consider completing the American Chemical Society approved major in chemistry.

**MINOR**

A minor in chemistry requires a minimum of 19 semester hours including Chemistry 101-102 and Chemistry 201-202. Remaining hours may be taken in Chemistry 203, 301, 302, 303, 402,

404, 405, and 407. Permission of department chairperson is required before Chemistry 301-302, 303, 402, 405, and 407 may be taken without appropriate prerequisites.

## COLLATERAL

A collateral in chemistry requires 12 semester hours, including Chemistry 101-102, and 201 or 203.

### TO:

An ACS-certified major in chemistry requires:

1. Chemistry course requirements
  - a) thirty-eight hours of Chemistry 111, 111L, 112, 112L, 201, 202, 203, 301, 302, 303, 402, and 404
  - b) Chemistry 403, two credit hours of Chemistry 497 and/or 498, and Chemistry 499. In addition, a minimum of 6 credit hours of additional in-depth chemistry courses from Chemistry 405, 407, or 408 are required.
2. Minor/collateral requirements (two options)
  - a) two 12-hour collaterals approved by the faculty adviser (physics and mathematics are recommended (the math collateral is fulfilled by completing the other requirements listed in 3., below); pre-medical or pre-dental students should also consider biology)
  - b) an 18-hour minor approved by the faculty adviser preferably from either:
    - i. mathematics or physics (recommended for students who plan to attend graduate school)
    - ii. biology (recommended for pre-medical or pre-dental students)
3. Other requirements for an ACS-certified major in chemistry include
  - a) Mathematics 201 and 202
  - b) 3 courses selected from Mathematics 203, 301, 304, and 306
  - c) Physics 201 and 202
4. General Education courses required for the Bachelor of Science degree

The minimum number of semester hours required in major courses for a traditional major in chemistry is 36; for an ACS-certified major in chemistry, the minimum is 48. The minimum number of semester hours in all courses (major and non-major) required for either the traditional or ACS-certified degree major in chemistry is 120.

Students majoring in chemistry and planning to enter graduate school should consider completing the American Chemical Society certified major in chemistry.

## MINOR

A minor in chemistry requires a minimum of 19 semester hours including Chemistry 111, 111L, 112, 112L, 201, and 202. Remaining hours may be chosen from Chemistry 203, 301, 302, 303, 402, 404, 405, or 407. Permission of department chairperson is required before Chemistry 301, 302, 303, 402, 405, or 407 may be taken without appropriate prerequisites.

## COLLATERAL

A collateral in chemistry requires 12 semester hours, including Chemistry 111, 111L, 112, and 112L, and either 201 or 203.

**RATIONALE:** These changes are to update the description of the ACS-certified Chemistry major and to clarify the wording of the Chemistry course requirements, chemistry minor and collateral requirements, and other requirements for an ACS-certified Chemistry major. There are no changes to the major itself or any courses required for the major. The course number changes reflect the separation of the lecture and the lab for the general chemistry sequence, the separation of hyphenated courses, and the clarification and flexibility in selecting Math courses beyond Math 203. Computer Science is no longer recommended as a minor or collateral. The total number of hours for the ACS-certified major was changed in 2017 but was not correctly reflected in the catalog.

- Q. **MODIFY** in the Environmental Science Option in Chemistry on page 73 of the current catalog

### **FROM:**

<b>General Education Requirement</b> . . . . .	<b>48-49 hours</b>
Communications. . . . .	9-10 hours
English 101 (or English 101E/L). . . . .	3 or 4
English 102. . . . .	3
Speech Communication 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Economics 203, 340 . . . . .	6
Humanities . . . . .	12 hours
History 100 level . . . . .	3
Appreciation (Art 101, Music 101, or Theatre 101) . . . . .	3
Philosophy and Religious Studies 400 or History 335. . . . .	3
Mathematics. . . . .	6 hours
Mathematics 201. . . . .	3
Mathematics 202. . . . .	3
Natural Sciences . . . . .	12 hours
Biology 105, 115, 106 . . . . .	8
Chemistry 101 . . . . .	4

<b>Core Courses for Environmental Science Program. . . . .</b>	<b>.38 or 40 hours</b>
Biology 210 or 214 . . . . .	3-4
Psychology 302 or Mathematics 312 . . . . .	3
Geography 105 . . . . .	3
Biology 308 or 402 or 408 . . . . .	4
Chemistry 102, 201, and 202 or 203. . . . .	12
Physics 200, 201, 202 . . . . .	12
Computer Science 190 or 226 or Mathematics 213 . . . . .	3 or 4

**TO:**

<b>General Education Requirement . . . . .</b>	<b>.48-49 hours</b>
Communications. . . . .	9-10 hours
English 101 (or English 101E/L). . . . .	3 or 4
English 102. . . . .	3
Speech Communication 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Economics 203, 340 . . . . .	6
Humanities . . . . .	12 hours
History 100 level . . . . .	3
Appreciation (Art 101, Music 101, or Theatre 101) . . . . .	3
Philosophy and Religious Studies 400 or History 335. . . . .	3
Mathematics. . . . .	6 hours
Mathematics 201. . . . .	3
Mathematics 202. . . . .	3
Natural Sciences . . . . .	12 hours
Biology 105, 115, 106 . . . . .	8
<b>Chemistry 111 and 111L . . . . .</b>	<b>4</b>
<b>Core Courses for Environmental Science Program. . . . .</b>	<b>.38 or 40 hours</b>
Biology 210 or 214 . . . . .	3-4
Psychology 302 or Mathematics 312 . . . . .	3
Geography 105 . . . . .	3
Biology 308 or 402 or 408 . . . . .	4
Chemistry 112, 112L, and 201, and either 202 or 203. . . . .	12
Physics 200, 201, 202 . . . . .	12
Computer Science 190 or 226 or Mathematics 213 . . . . .	3 or 4

**RATIONALE:** The course number changes reflect the separation of the lecture and the lab for the general chemistry course sequence. Adding the word “either” clarifies a choice in requirements.

R. **MODIFY** in the Pre-Pharmacy Option in Chemistry on page 73-74 of the current catalog

**FROM:**

The pre-pharmacy option in Chemistry offers students a **basic** chemistry major that includes the pre-pharmacy curriculum for application to pharmacy school at The University of South Carolina or the Medical University of South Carolina. The pre-pharmacy option requires the completion of general education courses, pre-pharmacy curriculum courses, and the requirements for the **basic** chemistry major.

Mathematics . . . . .	6 hours
Math 132 or 137 . . . . .	3
Math 134 . . . . .	3
Natural Sciences . . . . .	12 hours
Biology 105, 115 . . . . .	4
Psychology 206, 216 . . . . .	4
<b>Chemistry 101 . . . . .</b>	<b>4</b>
<b>Pre-Pharmacy curriculum . . . . .</b>	<b>48 hours</b>
<b>Chemistry 102 . . . . .</b>	<b>4</b>
Chemistry 201 . . . . .	4
Chemistry 202 . . . . .	4
Chemistry 404 . . . . .	3

**TO:**

The pre-pharmacy option in Chemistry offers students a **traditional** chemistry major that includes the pre-pharmacy curriculum for application to pharmacy school at The University of South Carolina or the Medical University of South Carolina. The pre-pharmacy option requires the completion of general education courses, pre-pharmacy curriculum courses, and the requirements for the **traditional** chemistry major.

Mathematics . . . . .	6 hours
Math 132 or 137 . . . . .	3
Math 134 . . . . .	3
Natural Sciences . . . . .	12 hours
Biology 105, 115 . . . . .	4
Psychology 206, 216 . . . . .	4
<b>Chemistry 111 and 111L . . . . .</b>	<b>4</b>
<b>Pre-Pharmacy curriculum . . . . .</b>	<b>48 hours</b>
<b>Chemistry 112 and 112L . . . . .</b>	<b>4</b>
Chemistry 201 . . . . .	4
Chemistry 202 . . . . .	4
Chemistry 404 . . . . .	3

**RATIONALE:** The course number changes reflect the separation of the lecture and the lab for the general chemistry course sequence. The wording of the chemistry major is modified.

- S. **MODIFY** in the Forensic Science Option in Chemistry on page 73 of the current catalog

**FROM:**

<b>General Education Requirements</b> .....	<b>48-49 hours</b>
Communications .....	9-10 hours
English 101 (or English 101E/L) .....	3 or 4
English 102 .....	3
Speech Communication 101 .....	3
Social Sciences .....	9 hours
Political Science 101 or 103 .....	3 Political
Science 230 .....	3
Sociology 201 .....	3
Humanities .....	12 hours
Literature .....	3
History .....	3
Art 101, Music 101, or Theater 101 .....	3
Humanities Elective .....	3
Mathematics .....	6 hours
Math 132 or 137 .....	3
Math 134 .....	3
Natural Sciences.....	12hours
Biology 105 and 115 or 107 .....	4
Biology 106 or 108 .....	4
<b>Chemistry 101</b> .....	<b>4</b>
<b>Forensic Science curriculum</b> .....	<b>38 hours</b>
Chemistry 404 .....	3
Chemistry 497 (Research in Forensics) .....	1
Chemistry 204 (Essential Forensic Chemistry) .....	4
Sociology 341 (Criminology) .....	3
Sociology Course selected FROM 342, 343, 344, or 347.....	3
Political Science Course selected FROM 206, 330, or 331.....	3
Physics 201 and 202 .....	8
Math 201 .....	3
Math 202 .....	3
Math 203 .....	3
Biology 205 .....	4
<b>Chemistry Requirements</b> .....	<b>28-29 hours</b>
<b>Chemistry 102</b> .....	<b>4</b>
Chemistry 201 .....	4
Chemistry 202 .....	4

Chemistry 203 .....	4
Chemistry 301 .....	4
Chemistry 303 .....	4
Chemistry 499 .....	1

**TO:**

<b>General Education Requirements .....</b>	<b>48-49 hours</b>
Communications .....	9-10 hours
English 101 (or English 101E/L) .....	3 or 4
English 102 .....	3
Speech Communication 101 .....	3
Social Sciences .....	9 hours
Political Science 101 or 103 .....	3 Political
Science 230 .....	3
Sociology 201 .....	3
Humanities .....	12 hours
Literature .....	3
History .....	3
Art 101, Music 101, or Theater 101 .....	3
Humanities Elective .....	3
Mathematics .....	6 hours
Math 132 or 137 .....	3
Math 134 .....	3
Natural Sciences.....	12hours
Biology 105 and 115 or 107 .....	4
Biology 106 or 108 .....	4
<b>Chemistry 111 and 111L .....</b>	<b>4</b>
<b>Forensic Science curriculum .....</b>	<b>38 hours</b>
Chemistry 404 .....	3
Chemistry 497 (Research in Forensics) .....	1
Chemistry 204 (Essential Forensic Chemistry) .....	4
Sociology 341 (Criminology) .....	3
Sociology Course selected FROM 342, 343, 344, or 347. ....	3
Political Science Course selected FROM 206, 330, or 331. ....	3
Physics 201 and 202 .....	8
Math 201 .....	3
Math 202 .....	3
Math 203 .....	3
Biology 205 .....	4
<b>Chemistry Requirements .....</b>	<b>28-29 hours</b>
<b>Chemistry 112 and 112L. ....</b>	<b>4</b>
Chemistry 201 .....	4
Chemistry 202 .....	4
Chemistry 203 .....	4
Chemistry 301 .....	4

Chemistry 303 .....	4
Chemistry 499 .....	1

T. **MODIFY** the description of the Biology major on page 63 of the current catalog

**FROM:**

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

**TO:**

Other requirements include **Chemistry 111, 111L, 112, 112L**, and 201 and either Physics 200, 201 and 202 or Physics 215-216.

U. **MODIFY** the description of the Environmental Science Option in Biology on pages 63-64 of the current catalog

**FROM:**

The Environmental Science Option will require the completion of the following courses which include General Education courses, certain core science and mathematics courses, and requirements for the biology major.

Communications .....	9 hours
English 101 (or 101E/L), 102 .....	6 or 7
Speech Communication 101 .....	3
Social Sciences .....	9 hours
Political Science 101 or 103 .....	3
Choose two courses: Economics 203, 340	
Geography 105, 215, Sociology 331 .....	6
Humanities .....	12 hours
History .....	3
Art 101, Music 101, or Theatre 101 .....	3
Humanities elective .....	3
Literature .....	3
Mathematics .....	6 hours
Mathematics 111 (or 111E), 132, or higher .....	6
Natural Sciences .....	61-65 hours
Biology	
Introductory Biology	
Biology 105/115, or 107 AND 106 or 108 .....	8
Organismal (Plant): one course from	
Biology 206, 207, 208, 307, 313, or 320 .....	4
Organismal (Animal): one course from	



Biology 201, 202, 204, 209, 312, 315 . . . . .	4
Ecology: one course from Biology 308, 317, 318, 402, 411, 412 . . . . .	4
Cell Biology: one course from Biology 301, 302, 407 . . . . .	4
Genetics: Biology 401 or 409 . . . . .	4
Senior Seminar: Biology 499 . . . . .	1
One course from Biology 210, Biology 214 . . . . .	3-4
Biology Elective: one course from Biology 201, 202, 206, 207, 208, 209, 307, 308, 312, 313, 315, 317, 318, 320, 402, 411, or 412 . . . . .	4
Chemistry <b>Chemistry 101, 102, and 201 . . . . .</b>	<b>12</b>
Physics Physics 215, 216 (or 200, 201, 202) . . . . .	8-12
<b>Total Hours Required for Graduation . . . . .</b>	<b>120</b>

**TO:**

The Environmental Science Option will require the completion of the following courses which include General Education courses, certain core science and mathematics courses, and requirements for the biology major.

Communications . . . . .	9 hours
English 101 (or 101E/L), 102 . . . . .	6 or 7
Speech Communication 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Choose two courses: Economics 203, 340 Geography 105, 215, Sociology 331 . . . . .	6
Humanities . . . . .	12 hours
History . . . . .	3
Art 101, Music 101, or Theatre 101 . . . . .	3
Humanities elective . . . . .	3
Literature . . . . .	3
Mathematics . . . . .	6 hours
Mathematics 111 (or 111E), 132, or higher . . . . .	6
Natural Sciences . . . . .	61-65 hours
Biology Introductory Biology Biology 105/115, or 107 AND 106 or 108 . . . . .	8
Organismal (Plant): one course from Biology 206, 207, 208, 307, 313, or 320 . . . . .	4
Organismal (Animal): one course from Biology 201, 202, 204, 209, 312, 315 . . . . .	4
Ecology: one course from Biology 308, 317, 318, 402, 411, 412 . . . . .	4

Cell Biology: one course from Biology 301, 302, 407 . . . . .	4
Genetics: Biology 401 or 409 . . . . .	4
Senior Seminar: Biology 499 . . . . .	1
One course from Biology 210, Biology 214 . . . . .	3-4
Biology Elective: one course from Biology 201, 202, 206, 207, 208, 209, 307, 308, 312, 313, 315, 317, 318, 320, 402, 411, or 412 . . . . .	4
Chemistry Chemistry 111, 111L, 112, 112L, and 201 . . . . .	12
Physics Physics 215, 216 (or 200, 201, 202) . . . . .	8-12
<b>Total Hours Required for Graduation . . . . .</b>	<b>120</b>

V. **MODIFY** the description of the Biology Secondary Education Option on page 64 of the current catalog

**FROM:**

The Biology Secondary Education Option requires completion of the following courses, which include General Education courses, certain core science and mathematics courses, education courses, biology courses, and student teaching.

General Education Requirements . . . . .	36-37 hours
Communications . . . . .	9 or 10 hours
English 101 (or 101 E), 102 . . . . .	6 or 7
Speech Communication 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Social Science Electives . . . . .	6
(Geography 105 and Sociology 201 recommended)	
Humanities . . . . .	12 hours
Literature . . . . .	3
Art 101, Music 101, or Theater 101 . . . . .	3
History . . . . .	3
Humanities Elective . . . . .	3
Mathematics . . . . .	6 hours
Math 111 (or 111E), 132, or higher . . . . .	6
Biology Course Requirements . . . . .	49 hours
Introductory Biology Biology 105/115 or 107 AND 106 or 108 . . . . .	8
Cell & Molecular Biology: one course from Biology 220, 301 . . . . .	4
Plant Biology: One course from Biology 206, 207, 208, 303, 307, 313, 320 . . . . .	4
Ecology: One course from	

Biology 308, 317, 318, 402, 411, 412 . . . . .	4
Genetics: One course from	
Biology 401, 409 . . . . .	4
Biological Research Methods	
Biology 413 and 497 (concurrent) . . . . .	4
Biology Electives: one course from	
Biology 205, 215, 236, 311, 406 . . . . .	4
Senior Seminar	
Biology 499 . . . . .	1
Chemistry	
<b>Chemistry 101, 102, 201 . . . . .</b>	<b>12</b>
Physics	
Physics 215* . . . . .	4
Education Requirements . . . . .	42 hours
Pre-Professional Education . . . . .	7 hours
Education 190/191 (corequisites) . . . . .	4
Education 305 . . . . .	3
Professional Education . . . . .	20 hours
Education 310 . . . . .	3
Education 311 . . . . .	3
Education 313 . . . . .	1
Education 322 . . . . .	3
Education 393 and 437 (concurrent) . . . . .	5
Education 420 . . . . .	3
Education 411 . . . . .	3
Student Teaching Block . . . . .	15 hours
Education 487 . . . . .	3
Education 490 . . . . .	12
*In addition, students are strongly encouraged to take Physics 216.	
Total hours required for graduation . . . . .	128-129

**TO:**

The Biology Secondary Education Option requires completion of the following courses, which include General Education courses, certain core science and mathematics courses, education courses, biology courses, and student teaching.

General Education Requirements . . . . .	36-37 hours
Communications . . . . .	9 or 10 hours
English 101 (or 101 E), 102 . . . . .	6 or 7
Speech Communication 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Social Science Electives . . . . .	6
(Geography 105 and Sociology 201 recommended)	
Humanities . . . . .	12 hours

Literature . . . . .	3
Art 101, Music 101, or Theater 101 . . . . .	3
History . . . . .	3
Humanities Elective . . . . .	3
Mathematics . . . . .	6 hours
Math 111 (or 111E), 132, or higher . . . . .	6
Biology Course Requirements . . . . .	49 hours
Introductory Biology	
Biology 105/115 or 107 AND 106 or 108 . . . . .	8
Cell & Molecular Biology: one course from Biology 220, 301 . . . . .	4
Plant Biology: One course from	
Biology 206, 207, 208, 303, 307, 313, 320 . . . . .	4
Ecology: One course from	
Biology 308, 317, 318, 402, 411, 412 . . . . .	4
Genetics: One course from	
Biology 401, 409 . . . . .	4
Biological Research Methods	
Biology 413 and 497 (concurrent) . . . . .	4
Biology Electives: one course from	
Biology 205, 215, 236, 311, 406 . . . . .	4
Senior Seminar	
Biology 499 . . . . .	1
Chemistry	
<b>Chemistry 111, 111L, 112, 112L, and 201 . . . . .</b>	<b>12</b>
Physics	
Physics 215* . . . . .	4
Education Requirements . . . . .	42 hours
Pre-Professional Education . . . . .	7 hours
Education 190/191 (corequisites) . . . . .	4
Education 305 . . . . .	3
Professional Education . . . . .	20 hours
Education 310 . . . . .	3
Education 311 . . . . .	3
Education 313 . . . . .	1
Education 322 . . . . .	3
Education 393 and 437 (concurrent) . . . . .	5
Education 420 . . . . .	3
Education 411 . . . . .	3
Student Teaching Block . . . . .	15 hours
Education 487 . . . . .	3
Education 490 . . . . .	12
*In addition, students are strongly encouraged to take Physics 216.	
Total hours required for graduation . . . . .	128-129

W. **MODIFY** the description of Biology 236 on page 66 of the current catalog

**FROM:**

**236 Human Physiology for Healthcare Professionals** (4:3-3) (Prerequisite: 205 and **Chemistry 102** or permission of the department) F, S, SU. Structure and function of the major organs and human body systems, emphasizing their mechanisms of operation, including clinical considerations. This course is recommended for pre-nursing majors only. Credit cannot be given for both Biology 236 and Biology 406.

**TO:**

**236 Human Physiology for Healthcare Professionals** (4:3-3) (Prerequisite: 205 and **Chemistry 112 and 112L** or permission of the department) F, S, SU. Structure and function of the major organs and human body systems, emphasizing their mechanisms of operation, including clinical considerations. This course is recommended for pre-nursing majors only. Credit cannot be given for both Biology 236 and Biology 406.

X. **MODIFY** the description of Biology 302 on page 66 of the current catalog

**FROM:**

**302 Developmental Biology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and **Chemistry 102**) AF. How a single cell, the zygote, grows into a multicelled organism. First part of the course focuses on how cells differentiate into specialized types, move around the embryo and communicate with each other. Second part of the course focuses on how molecular mechanisms give rise to major embryonic tissues, organs and organ systems in representative organisms. Also included are discussions about birth defects, sex determination and aging.

**TO:**

**302 Developmental Biology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and **Chemistry 112 and 112L**) AF. How a single cell, the zygote, grows into a multicelled organism. First part of the course focuses on how cells differentiate into specialized types, move around the embryo and communicate with each other. Second part of the course focuses on how molecular mechanisms give rise to major embryonic tissues, organs and organ systems in representative organisms. Also included are discussions about birth defects, sex determination and aging.

Y. **MODIFY** the description of Biology 308 on page 66 of the current catalog

**FROM:**

**308 Aquatic Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 or permission of the department and **Chemistry 102**) F, SU. An examination of the physical, chemical, and biological dynamics of standing and flowing freshwaters and how these dynamics affect the ecology of organisms.

**TO:**

**308 Aquatic Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 or permission of the department and **Chemistry 112 and 112L**) F, SU. An examination of the physical, chemical, and biological dynamics of standing and flowing freshwaters and how these dynamics affect the ecology of organisms.

Z. **MODIFY** the description of Biology 402 on page 66 of the current catalog

**FROM:**

**402 Terrestrial Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and **Chemistry 102**) F. Structure and function of terrestrial ecosystems, communities, and populations; relationships of organisms (including human beings) to their environments.

**TO:**

**402 Terrestrial Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and **Chemistry 112 and 112L**) F. Structure and function of terrestrial ecosystems, communities, and populations; relationships of organisms (including human beings) to their environments.

AA. **MODIFY** the description of Biology 411 on page 67 of the current catalog

**FROM:**

**411 Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and **Chemistry 102**) S. General principles of ecology of individuals, populations, communities, and ecosystems from an evolutionary perspective. The scientific method will be stressed.

**TO:**

**411 Ecology** (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and

**Chemistry 112 and 112L**) S. General principles of ecology of individuals, populations, communities, and ecosystems from an evolutionary perspective. The scientific method will be stressed.

BB. **MODIFY** the description of the Four Year Plan for Biology Majors with a Chemistry Minor or Collateral on page 68

**FROM:**

Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.
English 101 (or English 101E/101L)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132	3
Biology 105 and 115, 106, 107, or 108	4	Biology 105 and 115, 106, 107, or 108	4
<b>Chemistry 101</b>	<b>4</b>	<b>Chemistry 102</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

**TO:**

Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.
English 101 (or English 101E/101L)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132	3
Biology 105 and 115, 106, 107, or 108	4	Biology 105 and 115, 106, 107, or 108	4
<b>Chemistry 111 and 111L</b>	<b>4</b>	<b>Chemistry 112 and 112L</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

CC. **MODIFY** the description of the Four Year Plan for Biology Majors: Environmental Science Option with a Chemistry Minor page 69

**FROM:**

Course	Fall Sem. Hrs.	Course	Spring Sem. Hrs.
English 101 (or English 101E/101L)	3 or 4	English 102	3

Mathematics 111 (or 111E) or higher	3	Mathematics 132 or higher	3
Biology 105 and 115, 106, 107, or 108	4	Biology 105 and 115, 106, 107, or 108	4
<b>Chemistry 101</b>	<b>4</b>	<b>Chemistry 102</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

**TO:**

<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
English 101 (or English 101E/101L)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132 or higher	3
Biology 105 and 115, 106, 107, or 108	4	Biology 105 and 115, 106, 107, or 108	4
<b>Chemistry 111 and 111L</b>	<b>4</b>	<b>Chemistry 112 and 112L</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

DD. **MODIFY** the description of the Four Year Plan for Biology Majors: Biology Secondary Education Option on page 70

**FROM:**

<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
English 101 (or English 101E)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 132 or higher	3
Biology 105 and 115, or 107	4	Biology 106 or 108	4
<b>Chemistry 101</b>	<b>4</b>	<b>Chemistry 102</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	Art 101, Music 101, Theater 101	3
		<b>Total Credits</b>	<b>17</b>

**TO:**

<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
English 101 (or English 101E)	3 or 4	English 102	3



Mathematics 111 (or 111E) 3 or higher		Mathematics 132 or higher	3
Biology 105 and 115, or 107 4		Biology 106 or 108	4
<b>Chemistry 111 and 111L</b>	<b>4</b>	<b>Chemistry 112 and 112L</b>	<b>4</b>
		Art 101, Music 101, Theater 101	3
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>17</b>

EE. **MODIFY** the description of the Four Year Plan for Biology Majors: Medical Technology (3+1) Option with a Chemistry Minor on page 71

**FROM:**

<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
English 101 (or English 101E/101L)	3 or 4	English 102	3
Mathematics 132	3	Mathematics 134*	3
Biology 105 and 115 or 107 4	4	Biology 106 or 108	4
<b>Chemistry 101</b>	<b>4</b>	<b>Chemistry 102</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

**TO:**

<b>Course</b>	<b>Fall Sem. Hrs.</b>	<b>Course</b>	<b>Spring Sem. Hrs.</b>
English 101 (or English 101E/101L)	3 or 4	English 102	3
Mathematics 132	3	Mathematics 134*	3
Biology 105 and 115 or 107 4	4	Biology 106 or 108	4
<b>Chemistry 111 and 111L</b>	<b>4</b>	<b>Chemistry 112 and 112L</b>	<b>4</b>
<b>Total Credits</b>	<b>14-15</b>	<b>Total Credits</b>	<b>14</b>

FF. **MODIFY** the description of the Physics major Computational Physics Concentration on page 112 of the current catalog

**FROM:**

**MAJOR**

Students pursuing a major in physics can select a concentration in Computational Physics or a concentration in Health Physics.

**A. Computational Physics Concentration**

A concentration in computational physics requires completion of:

1. Physics 200, 201, 202, 220, 301, 302, 314, 320, 401, 406, 410, and 419
2. Mathematics 201, 202, 203, 301, and 306
3. Chemistry 101 and 102
4. Computer Science 190 or 226 or Mathematics 213

**TO:**

**MAJOR**

Students pursuing a major in physics can select a concentration in Computational Physics or a concentration in Health Physics.

**A. Computational Physics Concentration**

A concentration in computational physics requires completion of:

1. Physics 200, 201, 202, 220, 301, 302, 314, 320, 401, 406, 410, and 419
2. Mathematics 201, 202, 203, 301, and 306
3. Chemistry 111, 111L, 112, and 112L
4. Computer Science 190 or 226 or Mathematics 213

GG. **CHANGE** the description of the Physics major Health Physics Concentration on page 112 of the current catalog

**FROM:**

**B. Health Physics Concentration**

A concentration in health physics requires completion of:

1. Physics 200, 201, 202, 210, 220, 310, 314, 316, 416, 417, 418, and 419
2. Biology 105 and 115 or 107 and 106 or 108, 415 and one course from Biology 301, 401, 402, or 406
3. Math 111 (or 111E), 132, 201, 202, 203, 301, and 306
4. Chemistry 101, 102, 201, and 203
5. Computer Science 226 or Mathematics 213

**TO:**

**B. Health Physics Concentration**

A concentration in health physics requires completion of:

1. Physics 200, 201, 202, 210, 220, 310, 314, 316, 416, 417, 418, and 419
2. Biology 105 and 115 or 107 and 106 or 108, 415 and one course from Biology 301, 401, 402, or 406
3. Math 111 (or 111E), 132, 201, 202, 203, 301, and 306
4. Chemistry 111, 111L, 112, 112L, 201, and 203

5. Computer Science 226 or Mathematics 213

HH. **MODIFY** the description of the Environmental Science Option in Physics on page 112 of the current catalog

**FROM:**

<b>General Education Requirements</b> . . . . .	<b>48-49 hours</b>
Communications . . . . .	9-10 hours
English 101 (or English 101E/L) . . . . .	3 or 4
English 102 . . . . .	3
Speech Communications 101 . . . . .	3
Social Sciences . . . . .	9 hours
Political Science 101 or 103 . . . . .	3
Economics 203, 340 . . . . .	6
Humanities . . . . .	12 hours
History 100 level . . . . .	3
Appreciation (Art 101, Music 101, or Theatre 101) . . . . .	3
Philosophy and Religious Studies 400 . . . . .	3
Mathematics . . . . .	6 hours
Mathematics 201 . . . . .	3
Mathematics 202 . . . . .	3
Natural Sciences . . . . .	12 hours
Biology 105 and 115 or 107 and 106 or 108 . . . . .	8
<b>Chemistry 101 . . . . .</b>	<b>4</b>
Core Courses for Environmental Science Program . . . . .	40 or 42 hours
Biology 210 or Biology 214 . . . . .	3 or 4
Psychology 302 or Mathematics 312 . . . . .	3
Geography 105 . . . . .	3
Biology 308 or 402 or 408 . . . . .	4
<b>Chemistry 102, 201, and 202, or 203 . . . . .</b>	<b>12</b>
(Physics majors must take Chemistry 203)	
Physics 200, 201, 202 . . . . .	12
Computer Science 190 or 226 or Mathematics 213 . . . . .	3 or 4
Physics Major/ Environmental Science Emphasis . . . . .	40-41 hours
Physics 314, 316, 416, 417 . . . . .	16
Chemistry 203, 303 . . . . .	8
Mathematics 203 . . . . .	3
Science Electives (select two courses) . . . . .	7-8 hours
Biology 308, 402, 408	
Chemistry 313	
Physics 310, 406	
Mathematics 301	
Free Electives (any two courses)	

Speech Communication and Technical Writing  
 Recommended 6 hours  
**Total Hours Required for Graduation . . . . .128-132**

**TO:**

**General Education Requirements . . . . .48-49 hours**  
 Communications . . . . .9-10 hours  
 English 101 (or English 101E/L) . . . . .3 or 4  
 English 102 . . . . .3  
 Speech Communications 101 . . . . .3  
 Social Sciences . . . . .9 hours  
 Political Science 101 or 103 . . . . .3  
 Economics 203, 340 . . . . .6  
 Humanities . . . . .12 hours  
 History 100 level . . . . .3  
 Appreciation (Art 101, Music 101, or Theatre 101) . . . . .3  
 Philosophy and Religious Studies 400 . . . . .3  
 Mathematics . . . . .6 hours  
 Mathematics 201 . . . . .3  
 Mathematics 202 . . . . .3  
 Natural Sciences . . . . .12 hours  
 Biology 105 and 115 or 107 and 106 or 108 . . . . .8  
**Chemistry 111 and 111L . . . . .4**  
 Core Courses for  
 Environmental Science Program . . . . .40 or 42 hours  
 Biology 210 or Biology 214 . . . . .3 or 4  
 Psychology 302 or Mathematics 312 . . . . .3  
 Geography 105 . . . . .3  
 Biology 308 or 402 or 408 . . . . .4  
**Chemistry 112, 112L, and 201, and either 202 or 203 . . . . .12**  
 (Physics majors must take Chemistry 203)  
 Physics 200, 201, 202 . . . . .12  
 Computer Science 190 or 226 or Mathematics 213 . . . . .3 or 4  
 Physics Major/ Environmental Science Emphasis . . . . .40-41 hours  
 Physics 314, 316, 416, 417 . . . . .16  
 Chemistry 203, 303 . . . . .8  
 Mathematics 203 . . . . .3  
 Science Electives (select two courses) . . . . .7-8 hours  
 Biology 308, 402, 408  
 Chemistry 313  
 Physics 310, 406  
 Mathematics 301  
 Free Electives (any two courses)  
 Speech Communication and Technical Writing  
 Recommended 6 hours

**Total Hours Required for Graduation .....128-132**

II. **MODIFY** the description of the Industrial Engineering major 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

**TO:**

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 111 and 111L
5. English 318
6. Economics 203 and 204

JJ. **MODIFY** the description of the Mechanical Engineering major on page 114 of the current catalog

**FROM:**

A major in mechanical engineering requires completion of the following.

1. Engineering 101, 201, 220, 250, 301, 310, 320, 330, 350, 370, 400, 401, 402, 411, 468, and 482
2. Physics 200, 201, 202, and 220
3. Mathematics 201, 202, 203, 301, and 306
4. Chemistry 101
5. English 318
6. Economics 203 and 204

**TO:**

A major in mechanical engineering requires completion of the following.

1. Engineering 101, 201, 220, 250, 301, 310, 320, 330, 350, 370, 400, 401, 402, 411, 468, and 482
2. Physics 200, 201, 202, and 220
3. Mathematics 201, 202, 203, 301, and 306
4. Chemistry 111 and 111L
5. English 318
6. Economics 203 and 204

KK. **MODIFY** the description of Engineering 220 on page 115 of the current catalog

**FROM:**

**220 Materials Engineering** (3) (Prerequisites: Physics 201 and **Chemistry 101**) S. This course is designed to introduce students to the structures and properties of metals, ceramics, polymers, and composites. In addition, students will gain an understanding of the processing and design limitations of these materials, as well as being introduced to new classes of materials being developed to meet the ever-expanding range of material requirements. Use in manufacturing is emphasized.

**TO:**

**220 Materials Engineering** (3) (Prerequisites: Physics 201 and **Chemistry 111 and 111L**) S. This course is designed to introduce students to the structures and properties of metals, ceramics, polymers, and composites. In addition, students will gain an understanding of the processing and design limitations of these materials, as well as being introduced to new classes of materials being developed to meet the ever-expanding range of material requirements. Use in manufacturing is emphasized.

LL. **MODIFY** the description of the Pre-engineering Curriculum on page 116 of the current catalog

**FROM:**

A student who wishes to spend the first two years of his/her academic career studying a pre-engineering program at FMU is advised to take the following courses: Physics 200, 201, 202, 220, 314; **Chemistry 101, 102**; English 101 (or English 101E plus English 101L), English 102; and any two courses from English 250, 251, 252; Math 201, 202, 203, 301, 306; twelve hours of social science and humanities electives, including Economics 203, 204; and six to nine hours of free electives, such as Speech Communication 101 or English 318.

**TO:**

A student who wishes to spend the first two years of his/her academic career studying a pre-engineering program at FMU is advised to take the following courses: Physics 200, 201, 202, 220, 314; **Chemistry 111, 111L, 112, and 112L**; English 101 (or English 101E plus English 101L), English 102; and any two courses from English 250, 251, 252; Math 201, 202, 203, 301, 306; twelve hours of social science and humanities electives, including Economics 203, 204; and six to nine hours of free electives, such as Speech Communication 101 or English 318.

MM. **MODIFY** the description of the Engineering Technology (civil) major on page 116 of the current catalog

**FROM:**

**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**

**TO:**

**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 111, 111L, 112, and 112L**

NN. **MODIFY** the description of the Engineering Technology (electronic) major on page 117 of the current catalog

**FROM:**

**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

**TO:**

**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 111, 111L, 112, and 112L

OO. **MODIFY** the description of the Dual Degree Program in Engineering with Clemson University on page 117 of the current catalog

**FROM:**

C. In addition, the following courses must be completed (some of these may be included as part of the General Education Requirements):

1. Physics 200, 201, 202, 220, 314
2. Mathematics 201, 202, 203, 301, 306
3. Chemistry 101, 102
4. Computer Science 226
5. Economics 203, 204

**TO:**

C. In addition, the following courses must be completed (some of these may be included as part of the General Education Requirements):

1. Physics 200, 201, 202, 220, 314
2. Mathematics 201, 202, 203, 301, 306
3. Chemistry 111, 111L, 112, and 112L
4. Computer Science 226
5. Economics 203, 204

PP. **MODIFY** the description of the Middle Level Education major on page 143-144 of the current catalog

**FROM:**



Specialty Area Requirements (All candidates must specialize in two areas. Note that the choice of specialty may affect choices in general education.) . . . . .36-37 hours

Middle Level English/Language Arts . . . . .18 hours

Education 326 . . . . . 3

English 300 . . . . . 3

English 310 . . . . . 3

English 315 . . . . . 3

English 340 . . . . . 3

English 341 . . . . . 3

Middle Level Mathematics . . . . . 18 hours

Mathematics 201 . . . . . 3

Mathematics 230 . . . . . 3

Mathematics 235 . . . . . 3

Mathematics 345 . . . . . 3

Mathematics Elective – 200 or higher . . . . . 3

Middle Level Education 316 . . . . . 3

Middle Level Science . . . . .18-19 hours

Relevant General Education Choices

Astronomy 201

Biology 105/115

Physical Science 150

Specialty Courses

Biology 106 . . . . . 4

**Chemistry 101 . . . . . 4**

Option: Geography 105 or Astronomy 202 . . . . . 3/4

**Option: Chemistry 102 or any Biology above 200 . . . . . 4**

Middle Level Education 317 . . . . . 3

Middle Level Social Studies . . . . .18 hours

Relevant General Education choices

Geography 101

Political Science 101

Political Science 103

History 102

Psychology 206/216

Specialty Courses

Economics 203 . . . . . 3

Economics 204 . . . . . 3

History 103 . . . . . 3

History 104 . . . . . 3

History 316 . . . . . 3

History 300/400 level elective  
(optional to earn a minor in history)

**TO:**

Specialty Area Requirements (All candidates must specialize in two areas. Note that the choice of specialty may affect choices in general education.) . . . . .36-37 hours

Middle Level English/Language Arts . . . . .18 hours

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Education 326 . . . . . 3

English 300 . . . . . 3

English 310 . . . . . 3

English 315 . . . . . 3

English 340 . . . . . 3

English 341 . . . . . 3

Middle Level Mathematics . . . . .18 hours

Mathematics 201 . . . . . 3

Mathematics 230 . . . . . 3

Mathematics 235 . . . . . 3

Mathematics 345 . . . . . 3

Mathematics Elective – 200 or higher . . . . . 3

Middle Level Education 316 . . . . . 3

Middle Level Science . . . . .18-19 hours

Relevant General Education Choices

Astronomy 201

Biology 105/115

Physical Science 150

Specialty Courses

Biology 106 . . . . . 4

**Chemistry 111 and 111L . . . . . 4**

Option: Geography 105 or Astronomy 202 . . . . . 3/4

**Option: Chemistry 112 and 112L or any Biology above 200 . . . . . 4**

Middle Level Education 317 . . . . . 3

Middle Level Social Studies . . . . .18 hours

Relevant General Education choices

Geography 101

Political Science 101

Political Science 103

History 102

Psychology 206/216

Specialty Courses

Economics 203 . . . . . 3

Economics 204 . . . . . 3

History 103 . . . . . 3

History 104 . . . . . 3

History 316 . . . . . 3

History 300/400 level elective

(optional to earn a minor in history)

QQ. **MODIFY** the description of the Pre-Nursing required courses on page 153 of the current catalog

**FROM:**

**GENERAL EDUCATION AND REQUIRED COURSES**

The following is the list of required courses for students applying to the BSN program who do not have a bachelor's degree:

English 101 (or English 101E/L) . . . . .	3 or 4
English 102 . . . . .	3
Speech Communication 101 . . . . .	3
Political Science 101 or 103 . . . . .	3
Social Science Elective . . . . .	3
**Psychology 334 . . . . .	3
Literature (any language) . . . . .	3
History . . . . .	3
Art 101, Music 101 or Theatre 101 . . . . .	3
Humanities Elective . . . . .	3
Mathematics 111 (111E) or higher . . . . .	3
Mathematics 134 . . . . .	3
*Biology 105 . . . . .	3
Biology 205 . . . . .	4
Biology 215 or 311 . . . . .	4
Biology 236 . . . . .	4
Chemistry 101 . . . . .	4
*Chemistry 102 . . . . .	4
<b>TOTAL . . . . .</b>	<b>59-60 hours</b>

**TO:**

**GENERAL EDUCATION AND REQUIRED COURSES**

The following is the list of required courses for students applying to the BSN program who do not have a bachelor's degree:

English 101 (or English 101E/L) . . . . .	3 or 4
English 102 . . . . .	3
Speech Communication 101 . . . . .	3
Political Science 101 or 103 . . . . .	3
Social Science Elective . . . . .	3
**Psychology 334 . . . . .	3
Literature (any language) . . . . .	3
History . . . . .	3
Art 101, Music 101 or Theatre 101 . . . . .	3
Humanities Elective . . . . .	3
Mathematics 111 (111E) or higher . . . . .	3

Mathematics 134	3
*Biology 105	3
Biology 205	4
Biology 215 or 311	4
Biology 236	4
Chemistry 111 and 111L	4
*Chemistry 112 and 112L	4
<b>TOTAL</b>	<b>59-60 hours</b>

RR. **MODIFY** the description of the Nursing Plan of Study Lower Division on page 157 of the current catalog

**FROM:**

Course	Sem. Hours	Course	Sem. Hours
English 101 (or English 101E/L)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 134	3
Biology 105	3	Chemistry 102	4
Chemistry 101*	4	Social Science (Elective)	3
Humanities Elective	3	<b>Total Credits</b>	<b>13</b>
<b>Total Credits</b>	<b>16-17</b>		

Course	Sem. Hours	Course	Sem. Hours
Speech Communication 101	3	Biology 236	4
Biology 311 or 215	4	Psychology 334	3
Biology 205	4	History	3
Literature	3	Art 101, Music 101, or Theatre 101	3
<b>Total Credits</b>	<b>14</b>	Political Science 101 or 103	3
		<b>Total Credits</b>	<b>16</b>

**TOTAL - 59 Semester Hours**

\*Students who do not have the math skills to take chemistry in the first semester of their freshman year should consider attending summer school to improve their math skills before enrolling in Chemistry 101.

**TO:**

Course	Sem. Hours	Course	Sem. Hours
English 101 (or English 101E/L)	3 or 4	English 102	3
Mathematics 111 (or 111E) or higher	3	Mathematics 134	3

Biology 105	3	Chemistry 112 and 112L	4
Chemistry 111 and 111L*	4	Social Science (Elective)	3
Humanities Elective	3	<b>Total Credits</b>	<b>13</b>
<b>Total Credits</b>	<b>16-17</b>		

Course	Sem. Hours	Course	Sem. Hours
Speech Communication 101	3	Biology 236	4
Biology 311 or 215	4	Psychology 334	3
Biology 205	4	History	3
Literature	3	Art 101, Music 101, or Theatre 101	3
<b>Total Credits</b>	<b>14</b>	Political Science 101 or 103	3
		<b>Total Credits</b>	<b>16</b>
		<b>TOTAL - 59 Semester Hours</b>	

\*Students who do not have the math skills to take chemistry in the first semester of their freshman year should consider attending summer school to improve their math skills before enrolling in **Chemistry 111 and 111L**.

SS. **MODIFY** the description of the Pre-Dental Curriculum on page 161 of the current catalog

**FROM:**

The following courses, as part of a bachelor's degree, meet the minimal requirements of most Dental Schools:

English Composition and Literature	6 hours
Mathematics	6 hours
General Biology (BIOL 105 and 115 or 107 and 106 or 108)	8 hours
Biology Electives	8 hours
<b>General Chemistry (CHEM 101, 102)</b>	<b>8 hours</b>
Organic Chemistry (CHEM 201, 202)	8 hours
Physics (PHYS 215, 216)	8 hours

**TO:**

The following courses, as part of a bachelor's degree, meet the minimal requirements of most Dental Schools:

English Composition and Literature	6 hours
Mathematics	6 hours
General Biology (BIOL 105 and 115 or 107 and 106 or 108)	8 hours
Biology Electives	8 hours
<b>General Chemistry (CHEM 111, 111L, 112, and 112L)</b>	<b>8 hours</b>
Organic Chemistry (CHEM 201, 202)	8 hours
Physics (PHYS 215, 216)	8 hours

TT. **MODIFY** the description of the Pre-Pharmacy Curriculum on page 161 of the current catalog

**FROM:**

Required courses for admission to the S.C. College of Pharmacy are the following:

Biology 105 and 115 or 107 and 106 or 108	8 hours
Biology 205, 406	8 hours
Chemistry 101-102	8 hours
Chemistry 201-202	8 hours
Economics 204	3 hours
English 101 (or English 101E/L) and 102	6 or 7 hours
Mathematics 132, 134, and 201	9 hours
Physics 215-216	8 hours
Psychology 206	3 hours
Speech Communication 101	3 hours
Electives: Social Sciences and Humanities	6 hours
70-71 semester hours	

**TO:**

Required courses for admission to the S.C. College of Pharmacy are the following:

Biology 105 and 115 or 107 and 106 or 108	8 hours
Biology 205, 406	8 hours
Chemistry 111, 111L, 112, and 112L	8 hours
Chemistry 201 and 202	8 hours
Economics 204	3 hours
English 101 (or English 101E/L) and 102	6 or 7 hours
Mathematics 132, 134, and 201	9 hours
Physics 215-216	8 hours
Psychology 206	3 hours
Speech Communication 101	3 hours
Electives: Social Sciences and Humanities	6 hours
70-71 semester hours	

UU. **MODIFY** the description of the Pre-Medical Curriculum on page 161 of the current catalog

**FROM:**

The following courses, as part of a bachelor's degree, meet the minimal recommendations of most Medical Schools:

English Composition and Literature . . . . . 6 hours  
 General Biology (BIOL 105 and 115 or 107 and 106 or 108) . . . 8 hours  
**General Chemistry (CHEM 101, 102) . . . . . 8 hours**  
 Organic Chemistry (CHEM 201, 202) . . . . . 8 hours  
 Physics (PHYS 215, 216) . . . . . 8 hours

**TO:**

The following courses, as part of a bachelor’s degree, meet the minimal recommendations of most Medical Schools:

English Composition and Literature . . . . . 6 hours  
 General Biology (BIOL 105 and 115 or 107 and 106 or 108) . . . 8 hours  
**General Chemistry (CHEM 111, 111L, 112, and 112L) . . . . . 8 hours**  
 Organic Chemistry (CHEM 201, 202) . . . . . 8 hours  
 Physics (PHYS 215, 216) . . . . . 8 hours

VV. **MODIFY** the description of the Pre-Physical Therapy Curriculum on page 162 of the current catalog

**FROM:**

The following courses, as part of a bachelor’s degree, meet the minimal recommendations of most Physical Therapy Schools:

General Biology (BIOL 105 and 115 or 107 and 106 or 108) . . . 8 hours  
 Human Anatomy (BIOL 205) . . . . . 4 hours  
 Human Physiology (BIOL 406) . . . . . 4 hours  
**General Chemistry (CHEM 101, 102) . . . . . 8 hours**  
 Physics (PHYS 215, 216) . . . . . 8 hours  
 Psychology (PSY 206, 325) . . . . . 6 hours  
 Statistics (MATH 134) . . . . . 3 hours

**TO:**

The following courses, as part of a bachelor’s degree, meet the minimal recommendations of most Physical Therapy Schools:

General Biology (BIOL 105 and 115 or 107 and 106 or 108) . . . 8 hours  
 Human Anatomy (BIOL 205) . . . . . 4 hours  
 Human Physiology (BIOL 406) . . . . . 4 hours  
**General Chemistry (CHEM 111, 111L, 112, and 112L). . . . . 8 hours**  
 Physics (PHYS 215, 216) . . . . . 8 hours  
 Psychology (PSY 206, 325) . . . . . 6 hours  
 Statistics (MATH 134) . . . . . 3 hours

WW. **MODIFY** the description of the Pre-Physician Assistant Curriculum on page 162 of the current catalog

**FROM:**

The following courses, as part of, or along with a bachelor's degree, meet the minimal recommendations of most Physician Assistant Schools in South Carolina:

General Biology (BIOL 105 and 115 or 107) .....	4 hours
Human Anatomy (BIOL 205).....	4 hours
Human Physiology (BIOL 406).....	4 hours
Microbiology (BIOL 311).....	4 hours
Genetics (BIOL 401).....	4 hours
<b>General Chemistry (CHEM 101, 102) .....</b>	<b>8 hours</b>
Organic Chemistry/Biochemistry (CHEM 201, 404).....	7 hours
Medical Terminology (NURS 211).....	1 hour
Psychology (PSY 206, 325, or 334).....	6 hours
Statistics (MATH 134).....	3 hours

**TO:**

The following courses, as part of, or along with a bachelor's degree, meet the minimal recommendations of most Physician Assistant Schools in South Carolina:

General Biology (BIOL 105 and 115 or 107) .....	4 hours
Human Anatomy (BIOL 205).....	4 hours
Human Physiology (BIOL 406).....	4 hours
Microbiology (BIOL 311).....	4 hours
Genetics (BIOL 401).....	4 hours
<b>General Chemistry (CHEM 111, 111L, 112, and 112L) .....</b>	<b>8 hours</b>
Organic Chemistry/Biochemistry (CHEM 201, 404).....	7 hours
Medical Terminology (NURS 211).....	1 hour
Psychology (PSY 206, 325, or 334).....	6 hours
Statistics (MATH 134).....	3 ho

XX. **MODIFY** the description of the Arrangement in Medical Technology with McLeod Regional Medical Center School of Medical Technology on page 163 of the current catalog

**FROM:**

1. A minimum of 90 semester hours including the General Education Requirements and the following required courses:

- Biology - 24 semester hours
- General Biology (Biology 105 and 115)



or 107 and 106 or 108) . . . . . 8 hours  
 Microbiology (Biology 311) . . . . . 4 hours  
 Immunology (Biology 407) . . . . . 4 hours  
 Genetics (Biology 401) . . . . . 4 hours  
 Biology Elective . . . . . 4 hours  
 Chemistry - 16 semester hours  
**General Chemistry (Chemistry 101-102) . . . . . 8 hours**  
 Organic Chemistry I (Chemistry 201) . . . . . 4 hours  
 Organic Chemistry II (Chemistry 202) or Quantitative  
 Analysis (Chemistry 203) . . . . . 4 hours  
 Chemistry Minor (or Second Collateral)  
 - 3-4 (or 12) semester hours  
 Chemistry Minor . . . . . 3-4 hours  
 (or Collateral) . . . . . (12 hours)  
 Mathematics - 6 semester hours  
 Mathematics 132 or higher\* . . . . . 3 hours  
 Statistics (Mathematics 134) . . . . . 3 hours  
 Physics - 8 (or 12) semester hours  
 Physics 215, 216 (or 200, 201, 202) . . . . . 8 hours  
 (12 hours)  
 \* Credit cannot be given for both Mathematics 137 and Mathematics  
 132.

**TO:**

1. A minimum of 90 semester hours including the General Education  
 Requirements and the following required courses:  
 Biology - 24 semester hours  
 General Biology (Biology 105 and 115  
 or 107 and 106 or 108) . . . . . 8 hours  
 Microbiology (Biology 311) . . . . . 4 hours  
 Immunology (Biology 407) . . . . . 4 hours  
 Genetics (Biology 401) . . . . . 4 hours  
 Biology Elective . . . . . 4 hours  
 Chemistry - 16 semester hours  
**General Chemistry (Chemistry 111, 111L, 112, and 112L) .. 8 hours**  
 Organic Chemistry I (Chemistry 201) . . . . . 4 hours  
 Organic Chemistry II (Chemistry 202) or Quantitative  
 Analysis (Chemistry 203) . . . . . 4 hours  
 Chemistry Minor (or Second Collateral)  
 - 3-4 (or 12) semester hours  
 Chemistry Minor . . . . . 3-4 hours  
 (or Collateral) . . . . . (12 hours)  
 Mathematics - 6 semester hours  
 Mathematics 132 or higher\* . . . . . 3 hours  
 Statistics (Mathematics 134) . . . . . 3 hours

Physics - 8 (or 12) semester hours  
Physics 215, 216 (or 200, 201, 202) . . . . . 8 hours  
(12 hours)  
\* Credit cannot be given for both Mathematics 137 and Mathematics  
132.

YY. **MODIFY** the description of the Arrangement in Pharmaceutical Studies with  
USC and MUSC Colleges of Pharmacy – The Bachelor of Science in Pharmaceutical  
Studies on page 163 of the current catalog

**FROM:**

1. A minimum of 61 semester hours at FMU including the admission  
requirements for the College of Pharmacy.

Biology - 16 semester hours  
General Biology (105 and 115 or 107 and 106 or 108) . 8 hours  
Human Anatomy (Biology 205) . . . . . 4 hours  
Human Physiology (Biology 406) . . . . . 4 hours  
Chemistry - 16 hours  
General Chemistry (Chemistry 101-102) . . . . . 8 hours  
Organic Chemistry (Chemistry 201-202) . . . . . 8 hours  
Mathematics - 6 hours  
Probability and Statistics (Mathematics 134) . . . . . 3 hours  
Differential Calculus (Mathematics 201) . . . . . 3 hours  
Physics - 8 hours  
General Physics (Physics 215, 216) . . . . . 8 hours  
English - 6 or 7 hours  
English Composition [English 101 (or English 101E/L)  
and 102] . . . . . 6 or 7 hours  
Economics - 3 hours  
Intro to Macroeconomics (Economics 204) . . . . . 3 hours  
Psychology - 3 hours  
Introduction to Psychology (Psychology 206) . . . . . 3 hours  
Speech Communication - 3 hours  
Oral Communication (Speech 101) . . . . . 3 hours

**TO:**

1. A minimum of 61 semester hours at FMU including the admission  
requirements for the College of Pharmacy.

Biology - 16 semester hours  
General Biology (105 and 115 or 107 and 106 or 108) . 8 hours  
Human Anatomy (Biology 205) . . . . . 4 hours  
Human Physiology (Biology 406) . . . . . 4 hours  
Chemistry - 16 hours

General Chemistry (Chemistry 111, 111L, 112, and 112L). 8 hours  
 Organic Chemistry (Chemistry 201 and 202) . . . . . 8 hours  
 Mathematics - 6 hours  
 Probability and Statistics (Mathematics 134) . . . . . 3 hours  
 Differential Calculus (Mathematics 201) . . . . . 3 hours  
 Physics - 8 hours  
 General Physics (Physics 215, 216) . . . . . 8 hours  
 English - 6 or 7 hours  
 English Composition [English 101 (or English 101E/L)  
 and 102] . . . . . 6 or 7 hours  
 Economics - 3 hours  
 Intro to Macroeconomics (Economics 204) . . . . . 3 hours  
 Psychology - 3 hours  
 Introduction to Psychology (Psychology 206) . . . . . 3 hours  
 Speech Communication - 3 hours  
 Oral Communication (Speech 101) . . . . . 3 hours

**RATIONALE S - YY:** The course number changes reflect the separation of the lecture and the lab for the general chemistry course sequence and/or the removal of the hyphen form the organic chemistry sequence.

ZZ. **MODIFY** “Chemistry 101” to “Chemistry 111 and 111L” anywhere else that it may incidentally appear in the current catalog in addition to those locations already specifically identified in C through YY above and, likewise, “Chemistry 102” to “Chemistry 112 and 112L.”

**RATIONALE:** This is to ensure that any oversights to the catalog in terms of these changes can be corrected without having to go through the governance cycle again.

## V. Report from the Graduate Council

### 1. Proposals from the School of Education

A. **Remove** the following courses on page 181 of the online catalog

#### ART COURSES (ART)

501 The School Art Program (3:2-2) (Prerequisite: 315) S. Preparation for teaching school art; partially meets art teacher licensure requirements through studio, discussion, and lecture in art.

600 Special Topics in Art (3:1-4) (Prerequisite: Bachelor’s degree or licensure in art) As Needed. Content will be specifically designed for the particular topic to be taught, such as ceramics, batik, collage, or other media as used in the classroom.

## BIOLOGY COURSES (BIOL)

501 Ornithology (4:3-3) (Prerequisite: 106 and 116 or permission of school) AS. Anatomy, physiology, taxonomy, evolution, ecology, behavior, and identification of birds.

515 Special Topics in Biology for Elementary Teachers (4), (3), (2), or (1) (Prerequisite: Bachelor's degree) As Needed. Designed to give elementary teachers an opportunity to learn information and laboratory techniques to help them teach biology.

602 Aquatic and Terrestrial Ecology (4:3-3) (Prerequisite: Eligibility for licensure in science and bachelor's degree or permission of department) SU. Structure and function of marine and terrestrial ecosystems with emphasis on southeastern United States. Lecture, laboratory, and field trips.

615 Special Topics in Biology for High School Teachers (4), (3), (2), or (1) (Prerequisite: Teacher's licensure to teach high school biology) SU. Designed to give high school teachers the opportunity to learn new information and laboratory techniques which will help them in their teaching.

Rationale: These courses are no longer offered as part of a graduate degree program in education. The courses will continue to be listed in the relevant disciplines.

B. **ADD** the following course on page 183 of the current paper catalog, before EDUC 760:

**EDUC 759 IEP Development and Transition for Students with Learning Disabilities** (3) (Corequisite: EDUC 762; Prerequisites: EDUC 760 and 761, or permission of the school). This course will emphasize the basic principles of IEP development and transition practices for teaching students with learning disabilities which will include interpreting psycho-educational reports to develop appropriate goals and objectives for IEP development; understanding how differentiated instruction and best practices relate to IEP development and goal mastery for students with learning disabilities; creating and adapting appropriate student performance assessments for IEP goals; understanding how Universal Design for Learning relates to successful IEP goal mastery as a method of accommodating and modifying instructional strategies for teaching students with learning disabilities; and introducing common transition practices for students with learning disabilities.

### **RATIONALE:**

Currently graduate students take EDUC 762, Instructional Planning and IEP Development for Students with Learning Disabilities which covers both IEP development and instructional planning/lesson planning. The separation of content and creation of this new course will allow

for more in-depth coverage of the components in each course and maximize teacher candidates' preparation in both of the areas which are essential to their success as initial special educators.

**C. MODIFY** EDUC 762 on page 183 of the current paper catalog.

**FROM:**

**762 Instructional Planning and IEP Development for Students with Learning Disabilities**

(3) (Prerequisites: EDUC 760 and 761, or permission of the school). **S, SU**. This course will emphasize the basic principles of instructional design for teaching students with learning disabilities which will include topics such as conducting individualized needs assessments; development of lesson plans for individual and group instruction; development of appropriate goals and objectives for IEP development; selecting and administering appropriate assessments for monitoring progress and data-based decision-making; and selecting, implementing, and individualizing appropriate instructional strategies for accelerating progress and improving learning outcomes of students with learning disabilities.

**TO:**

**762 Instructional Planning and IEP Implementation for Students with Learning**

**Disabilities** (3) (Co-Requisite: EDUC 759; Prerequisites: EDUC 760 and 761, or permission of the school). This course will emphasize the basic principles of instructional design as a part of IEP implementation for students with learning disabilities. With primary focus on the development of lesson plans and instructional units for both individual and group instruction, participants will learn to design instruction that targets both students' needs, as indicated by IEP goals, and state content standards for progress within the general education curriculum; use progress monitoring assessment results and data-based decision-making to guide instruction; and select, implement, and individualize appropriate instructional strategies for accelerating progress and improving learning outcomes of students with learning disabilities.

**RATIONALE:**

The EDUC 762 course content will focus more explicitly on instructional planning as a part of IEP implementation, whereas IEP development will be the focus of EDUC 759. This title modification reflects this revised focus. This will allow for more in-depth coverage of the components in each course and maximize teacher candidates' preparation in both of the areas which are essential to their success as initial special educators.

**D. MODIFY** the course listing for the MAT-LD program on page 182-183

**FROM:**

MASTER OF ARTS IN TEACHING PROGRAM FOR MASTER OF ARTS IN TEACHING  
WITH MAJOR IN LEARNING DISABILITIES

Coordinator: Dr. Cynthia Nixon

Students must complete 51 graduate hours.

Education Foundation Core . . . . . 15 Hours  
Education 611 Solving Instructional Problems Using Technology (3)  
Education 621 Understanding Learning Differences (3)  
Education 622 Assessment of Learning and Behavior (3)  
Education 624 Behavior Management of Students with Disabilities (3)  
Education 648 Educational Research (3)

Literacy Preparation . . . . . 10 Hours  
Education 637 Foundations of Reading (3)  
Education 638 Assessment of Reading (3)  
Education 639 Practicum: Assessment of Reading (1)  
Education 737 Content Area Reading and Writing (3)

Learning Disabilities Professional Preparation . . . . . 26 Hours  
Education 745 Teaching Reading and Written Language to Divergent and Exceptional Learners (3)  
Education 746 Practicum: Teaching Reading and Written Language To Exceptional Learners (1)  
Education 760 Exceptionalities: Characteristics and Legal Foundations (3)  
Education 761 Learning Disabilities: Characteristics, Identification and Placement (3)  
Education 762 Instructional Planning and IEP Development for Students with Learning Disabilities (3)  
Education 763 Teaching Mathematics to Divergent and Exceptional Learners (3)  
Education 764 Practicum –Teaching Mathematics to Exceptional Learners (1)  
Education 770 Learning Disabilities: Supervised Internship (9)

**TO:**

**MASTER OF ARTS IN TEACHING PROGRAM FOR MASTER OF ARTS IN TEACHING WITH MAJOR IN LEARNING DISABILITIES**

Coordinator: Dr. Cynthia Nixon  
Students must complete 51 graduate hours.

Education Foundation Core . . . . . 12 Hours  
Education 611 Solving Instructional Problems Using Technology (3)  
Education 622 Assessment of Learning and Behavior (3)  
Education 624 Behavior Management of Students with Disabilities (3)  
Education 648 Educational Research (3)

Literacy Preparation . . . . . 10 Hours  
Education 637 Foundations of Reading (3)  
Education 638 Assessment of Reading (3)  
Education 639 Practicum: Assessment of Reading (1)  
Education 737 Content Area Reading and Writing (3)

Learning Disabilities Professional Preparation . . . . . 29 Hours

Education 745 Teaching Reading and Written Language to Divergent and Exceptional Learners (3)

Education 746 Practicum: Teaching Reading and Written Language to Exceptional Learners (1)

Education 759 IEP Development and Transition for Students with Learning Disabilities (3)

Education 760 Exceptionalities: Characteristics and Legal Foundations (3)

Education 761 Learning Disabilities: Characteristics, Identification and Placement (3)

Education 762 Instructional Planning and IEP Implementation for Students with Learning Disabilities (3)

Education 763 Teaching Mathematics to Divergent and Exceptional Learners (3)

Education 764 Practicum –Teaching Mathematics to Exceptional Learners (1)

Education 770 Learning Disabilities: Supervised Internship (9)

**RATIONALE:** This change reflects the addition of EDUC 759 and the removal of EDUC 621 from the required courses for this degree.

**E. MODIFY** the course description found on page 183

**FROM:**

**737 Content Area Reading and Writing (3).**

This course is designed to prepare pre-service and in-service teachers in grades PK-12 to teach reading and writing skills related to content subjects (i.e., Math, Science, Social Studies, English Language Arts) in an integrated manner. Methods and materials needed to promote reading achievement in content subjects will be examined. This course will discuss the basic components of the reading and the writing processes and aid in the development of techniques to help students construct meaning from both expository and literature texts across the various disciplines. This course contains a clinical component for the implementation of a 4-6 day unit of study in a PK-12 classroom. This course requires the completion of a minimum of 15 hours in a South Carolina public school setting. MAT-LD program participants must be placed in a classroom that provides instruction to PK-12 students with learning disabilities. To complete the field experience hours, a current SLED background check must be received and approved by the FMU School of Education. Students should check the “News and Announcements” webpage ([www.fmarion.edu/education/soenews/](http://www.fmarion.edu/education/soenews/)) for specific SLED background check deadlines.

**TO:**

**737 Content Area Reading and Writing (3).**

This course is designed to prepare pre-service and in-service teachers in grades PK-12 to teach reading and writing skills related to content subjects (i.e., Math, Science, Social Studies, English Language Arts) in an integrated manner. Methods and materials needed to promote reading achievement in content subjects will be examined. This course will discuss the basic components of the reading and the writing processes and aid in the development of techniques to help students construct meaning from both expository and literature texts across the various disciplines

**RATIONALE:**

This course does not have a field experience component.

**F. MODIFY** the course description found on page 183

**FROM:**

**746 Practicum: Teaching Reading and Written Language to Exceptional Learners (1)**  
(Corequisite of EDUC 745 only for M.Ed.-LD/M.A.T.-LD) F, S. This course provides practical experience with application of evidence-based practices and methods for teaching reading and written language skills to students with specific learning disabilities. In collaboration with a cooperating teacher, participants will have opportunities to demonstrate proficiency with instructional planning and assessment to support student learning, independence, and motivation, and to incorporate instructional and/or assistive technology supports as appropriate to enhance achievement and/or task completion. Participants will assess student needs; then select and apply an appropriate instructional strategy or technique; collect and analyze student performance data; and evaluate the effectiveness of the selected instructional approach or technique, making instructional adjustments accordingly. This course requires the completion of a minimum of **30 hours** in a South Carolina public school setting. M.Ed. – LD and M.A.T-LD program participants must be placed in a classroom that provides instruction to students with specific learning disabilities in grades K-6.

**TO:**

**746 Practicum: Teaching Reading and Written Language to Exceptional Learners (1)**  
(Corequisite of EDUC 745 only for M.Ed.-LD/M.A.T.-LD) F, S. This course provides practical experience with application of evidence-based practices and methods for teaching reading and written language skills to students with specific learning disabilities. In collaboration with a cooperating teacher, participants will have opportunities to demonstrate proficiency with instructional planning and assessment to support student learning, independence, and motivation, and to incorporate instructional and/or assistive technology supports as appropriate to enhance achievement and/or task completion. Participants will assess student needs; then select and apply an appropriate instructional strategy or technique; collect and analyze student performance data; and evaluate the effectiveness of the selected instructional approach or technique, making instructional adjustments accordingly. This course requires the completion of a minimum of **40 hours** in a South Carolina public school setting. M.Ed. – LD and M.A.T-LD program participants must be placed in a classroom that provides instruction to students with specific learning disabilities in grades K-6.

**RATIONALE:**

The S.C. Department of Education requires that teacher candidates at the graduate level have a minimum total of 75 documented hours of field experiences in a public school. This course is increasing the field experience hours from 30 hours to 40 hours of field experience at the elementary level.

**G. MODIFY** the course description found on page 184

**FROM:**

**764 Practicum: Teaching Mathematics to Exceptional Learners (1)**



(Prerequisites: Full acceptance to graduate program and EDUC 760, 761, and 762, or permission of the school; Corequisite of EDUC 763 only for M.Ed.-LD/M.A.T.-LD). F, S. This course provides practical experience with application of evidence-based practices and methods for teaching mathematics and quantitative reasoning to at-risk learners and students with specific learning disabilities. In collaboration with a cooperating teacher, participants will have opportunities to demonstrate proficiency with instructional planning and assessment to support student learning, independence, and motivation and to incorporate instructional and/or assistive technology supports as appropriate to enhance achievement and/or task completion. Participants will assess student needs, then select and apply an appropriate instructional strategy or technique, collect and analyze student performance data, and evaluate the effectiveness of the selected instructional approach or technique, making instructional adjustments accordingly. This course requires the completion of a minimum of 30 hours in a South Carolina public school setting. M.Ed. – LD and M.A.TLD program participants must be placed in a classroom that provides instruction to students with specific learning disabilities in grades 7-12.

**TO:**

**764 Practicum: Teaching Mathematics to Exceptional Learners (1)**

(Prerequisites: Full acceptance to graduate program and EDUC 760, 761, and 762, or permission of the school; Corequisite of EDUC 763 only for M.Ed.-LD/M.A.T.-LD). F, S. This course provides practical experience with application of evidence-based practices and methods for teaching mathematics and quantitative reasoning to at-risk learners and students with specific learning disabilities. In collaboration with a cooperating teacher, participants will have opportunities to demonstrate proficiency with instructional planning and assessment to support student learning, independence, and motivation and to incorporate instructional and/or assistive technology supports as appropriate to enhance achievement and/or task completion. Participants will assess student needs, then select and apply an appropriate instructional strategy or technique, collect and analyze student performance data, and evaluate the effectiveness of the selected instructional approach or technique, making instructional adjustments accordingly. This course requires the completion of a minimum of 40 hours in a South Carolina public school setting. M.Ed. – LD and M.A.TLD program participants must be placed in a classroom that provides instruction to students with specific learning disabilities in grades 7-12.

**RATIONALE:**

The S.C. Department of Education requires that teacher candidates at the graduate level have a minimum total of 75 documented hours of field experiences in a public school. This course is increasing the field experience hours from 30 hours to 40 hours of field experience at the secondary level.

**2. Proposals from the Department of Nursing**

- A. **MODIFY** on page 188 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**501 Advanced Practice Role: Theory and Knowledge Development (3) S-**

**TO:**

**501 Advanced Practice Role: Theory and Knowledge Development (3)**

- B. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**502 Biostatistics (3) ~~S~~**

**TO:**

**502 Biostatistics (3)**

- C. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**503 Advanced Research and Evidence-based Practice (3)** (Permission of the department) ~~SU~~

**TO:**

**503 Advanced Research and Evidence-based Practice (3)** (Permission of the department)

- D. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**504 Health Policy and Leadership (3) ~~F, S~~**

**TO:**

**504 Health Policy and Leadership (3)**

- E. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**505 Population Health and Epidemiology (3) ~~S~~**

**TO:**

**505 Population Health and Epidemiology (3)**

F. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**506 Health Systems and Risk Management (3) ~~SU~~**

**TO:**

**506 Health Systems and Risk Management (3)**

G. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**507 Patient Education and Advocacy (3) ~~F~~**

**TO:**

**507 Patient Education and Advocacy (3)**

H. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**601 Advanced Pathophysiology (3) ~~S~~**

**TO:**

**601 Advanced Pathophysiology (3)**

I. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**602 Advanced Pharmacology (3) ~~F~~**

**TO:**

**602 Advanced Pharmacology (3)**

J. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**603 Advanced Physical Assessment and Health Promotion (4:3-3) (45 laboratory hours)**  
**SU.**

**TO:**

**603 Advanced Physical Assessment and Health Promotion (4:3-3) (45 laboratory hours)**

K. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN)  
the following:

**FROM:**

**604 Teaching and Learning in Nursing (3) S.**

**TO:**

**604 Teaching and Learning in Nursing (3)**

L. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN)  
the following:

**FROM:**

**605 Curriculum Development and Program Evaluation (3) SU.**

**TO:**

**605 Curriculum Development and Program Evaluation (3)**

M. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN)  
the following:

**FROM:**

**606 Advanced Assessment and Pharmacological Effects on the Pathophysiology of Body Systems (3) F**

**TO:**

**606 Advanced Assessment and Pharmacological Effects on the Pathophysiology of Body Systems (3)**

N. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN)  
the following:

**FROM:**

**607 Assessment and Evaluation Strategies (3) SU**

**TO:**

**607 Assessment and Evaluation Strategies (3)**

- O. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**608 Clinical Nursing Education (3) SU**

**TO:**

**608 Clinical Nursing Education (3)**

- P. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**701 Primary Care of Adults (5:2-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 601, 603. Prerequisites or Corequisites: 507, 602). (Prerequisites for BSN to DNP Track: 502, 601, 602, 603. Prerequisite or Corequisite: 507) F.**

**TO:**

**701 Primary Care of Adults (5:2-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 601, 603. Prerequisites or Corequisites: 507, 602). (Prerequisites for BSN to DNP Track: 502, 601, 602, 603. Prerequisite or Corequisite: 507)**

- Q. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**702 Primary Care of Infants, Children and Adolescents (4:2-6) (90 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 507, 601, 602, 603, 701. Corequisites: 505, 703). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703) S**

**TO:**

**702 Primary Care of Infants, Children and Adolescents (4:2-6) (90 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 507, 601, 602, 603, 701. Corequisites: 505, 703). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703)**

- R. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**703 Primary Care of Women** (2:1-3) (45 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 507, 601, 602, 603, 701. Corequisites: 505, 702). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701) **S**.

**TO:**

**703 Primary Care of Women** (2:1-3) (45 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 507, 601, 602, 603, 701. Corequisites: 505, 702). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701)

- S. **MODIFY** on page 189 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**704 Primary Care of Geriatric Patients** (2:1-3) (45 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 507, 601, 602, 603, 701, 702, 703. Corequisites: 506, 707). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703) **SU**

**TO:**

**704 Primary Care of Geriatric Patients** (2:1-3) (45 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 507, 601, 602, 603, 701, 702, 703. Corequisites: 506, 707). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703)

- T. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**705 Internship I** (4:1-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 506, 507, 601, 602, 603, 701, 702, 703, 704, 707. Corequisite: 706). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703, 704, 707. Corequisite: 706) **F**

**TO:**

**705 Internship I** (4:1-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 506, 507, 601, 602, 603, 701, 702, 703, 704, 707. Corequisite: 706). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703, 704, 707. Corequisite: 706)

- U. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**706 Internship II** (4:1-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 506, 507, 601, 602, 603, 701, 702, 703, 704, 707. Corequisite: 705). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703, 704, 707. Corequisite: 705) **F**

**TO:**

**706 Internship II** (4:1-9) (135 clinical hours) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 506, 507, 601, 602, 603, 701, 702, 703, 704, 707. Corequisite: 705). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703, 704, 707. Corequisite: 705)

- V. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**707 Clinical Decision-making and Ethics** (3) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 507, 601, 602, 603, 701, 702, 703. Corequisites: 506, 704). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703. Corequisite: 704) **SU**

**TO:**

**707 Clinical Decision-making and Ethics** (3) (Prerequisites for MSN/FNP Track: 501, 502, 503, 504, 505, 507, 601, 602, 603, 701, 702, 703. Corequisites: 506, 704). (Prerequisites for BSN to DNP Track: 502, 507, 601, 602, 603, 701, 703. Corequisite: 704)

- W. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**708 Academic Practicum** (3:9) (135 practicum hours/semester) **S-** (Prerequisites: APRN 501, 502, 503, 504).

**TO:**

**708 Academic Practicum** (3:9) (135 practicum hours/semester) (Prerequisites: APRN 501, 502, 503, 504).

- X. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**709 Clinical Practicum** (3:9) (135 practicum hours/semester) ~~F~~ (Prerequisites: APRN 501, 502, 503, 504.)

**TO:**

**709 Clinical Practicum** (3:9) (135 practicum hours/semester) (Prerequisites: APRN 501, 502, 503, 504)

- Y. **MODIFY** on page 190 of the online catalog under Graduate Courses for Nursing (APRN) the following:

**FROM:**

**710 Education Capstone Seminar** (3) ~~F~~ (Prerequisites: APRN 501, 502, 503, 504, 604, 605, 606, 607, 608, 708. Corequisite: 709 or Permission of the Department.)

**TO:**

**710 Education Capstone Seminar** (3) (Prerequisites: APRN 501, 502, 503, 504, 604, 605, 606, 607, 608, 708. Corequisite: 709 or Permission of the Department.)

**RATIONALE for A-Y:**

We are deleting from the catalog the semesters in which courses are offered to provide greater scheduling flexibility. Each student receives a plan of study upon entry into the program to guide them during course registration.

**3. Proposals from Department of Speech-Language Pathology**

- A. **MODIFY** credit hours from page 201 in the online Catalog and page 207 in paper Catalog

**FROM**

**542: Autism Spectrum Disorder (3)** This course provides an overview of the diagnostic criteria, etiological factors, and the main characteristics of Autism Spectrum Disorder (ASD), with special focus on communication deficits, and how to manage them. Current research on assessment and intervention methods will be covered.

**To**

**542: Autism Spectrum Disorder (2)** This course provides an overview of the diagnostic criteria, etiological factors, and the main characteristics of Autism Spectrum Disorder (ASD), with special focus on communication deficits, and how to manage them. Current research on assessment and intervention methods will be covered.



**RATIONALE:**

The change in credit hours from 3 to 2 more accurately reflects the amount of content required for the course. The proposed decrease will eliminate redundancy within the curriculum.

B. **MODIFY** credit hours from page 201 in the online Catalog and page 207 in paper Catalog

**FROM**

**591: Motor Speech Disorders (3)** This course examines the neurological bases, assessment, and treatment of dysarthria and apraxia of speech. Students will learn the perceptual and instrumental procedures used to evaluate and treat motor speech disorders across the lifespan.

**TO**

**591: Motor Speech Disorders (2)** This course examines the neurological bases, assessment, and treatment of dysarthria and apraxia of speech. Students will learn the perceptual and instrumental procedures used to evaluate and treat motor speech disorders across the lifespan.

**RATIONALE:**

The change in credit hours from 3 to 2 more accurately reflects the amount of content required for the course. The proposed decrease will eliminate redundancy within the curriculum.

C. **ADD** course to page 201 in the online Catalog and page 207 in paper Catalog

**543: Craniofacial Anomalies (2)** This course provides an introduction to the effects of craniofacial anomalies on speech development with particular attention to the effects of clefts of the lip and/or palate. Focus is on the interdisciplinary team model for both assessment and treatment of speech, resonance, velopharyngeal dysfunction, and dysphagia.

**RATIONALE:**

The new course provides in depth knowledge of specific populations with craniofacial anomalies served by speech-language pathologists that are relevant and required in our profession.

D. **MODIFY** course name on page 207 in the online Catalog and page 207 in paper Catalog

**FROM**

**537: Speech and Hearing Science (3)** This course will provide a foundational understanding of the basic principles of acoustics, psychoacoustics, and the acoustics of voice and speech

production. This course is an essential fundamental course containing crucial information that transfers to all communication disorders and sciences.

**TO**

**537: Speech and Hearing Sciences** (3) This course will provide a foundational understanding of the basic principles of acoustics, psychoacoustics, and the acoustics of voice and speech production. This course is an essential fundamental course containing crucial information that transfers to all communication disorders and sciences.

**RATIONALE:**

Correct the title by making “Science” plural which is more accurate.

E. **MODIFY** course name on page 207 in the online Catalog and page 207 in paper Catalog.

**FROM**

**507: Language and Speech Development** (3) This course addresses the theory and evidence associated with the development of phonology, syntax, semantics, and pragmatics, as well as cultural and linguistic variations in child speech and language development. This course will help students gain a better understanding of the difference between normal communication development and disordered communication development.

**TO**

**507: Speech and Language Development** (3) This course addresses theories and evidence associated with the development of speech, phonology, morphology, syntax, semantics, and pragmatics in children. It includes the cultural and linguistic variations in speech and language development. This course will help students gain a better understanding of the difference between normal and disordered communication development.

**RATIONALE:**

The change in course title is more representative of what is required in the profession of speech-language pathology, and is in line with accreditation standards allow for transfer of credit between universities.

F. **MODIFY** course name and description to page 206 in the online Catalog and page 206 in paper Catalog.

**FROM**

**510: Introduction to Speech and Language Disorders** (3) This course is an introduction to the nature, assessment, and treatment of speech and language disorders. The course will help prepare students for working with pediatric and adult populations with speech and language disorders.

**TO**

**510: Introduction to Communication Disorders** (3) This course is an introduction to the nature, assessment, and treatment of various motor speech, language, cognitive, hearing, and swallowing disorders in pediatric and adult populations. Students will gain foundational knowledge of the speech-language pathologists' scope of practice.

**RATIONALE:**

The title and course description reflect content that is required in the profession of speech-language pathology, and is in line with accreditation standards allowing for transfer of credit between universities.

G. **MODIFY** course name from page 206 in the online Catalog and page 206 in paper Catalog

**FROM**

**515: Phonetics and Phonology** (3) This course is an introduction to the speech sounds used in the production of American English. Emphasis is placed on sound to symbol transcription using the International Phonetic Alphabet. An introductory review of phonology will also be covered. Transcription competency required.

**TO**

**515: Phonetics** (3) This course is an introduction to the speech sounds used in the production of American English. Emphasis is placed on sound to symbol transcription using the International Phonetic Alphabet. Transcription competency required.

**RATIONALE:**

The title and course description reflect content that is required in the profession of speech-language pathology, and is in line with accreditation standards allowing for transfer of credit between universities.

H. **MODIFY** on pages 199-201 in the online Catalog and Page 204-205 in paper Catalog

**FROM**

GRADUATE SPEECH-LANGUAGE PATHOLOGY PROGRAM

MASTER OF SPEECH-LANGUAGE PATHOLOGY

Department of Speech-Language Pathology Chair:

Dr. Frances A. Burns

The Master of Speech-Language Pathology (MSLP) program at Francis Marion University is a Candidate for Accreditation by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301- 296-5700. Candidacy status is a “pre-accreditation” status with the CAA, awarded to developing or emerging programs for a maximum period of 5 years.

Graduates will be eligible for licensure by the Board of Examiners in Speech-Language Pathology and Audiology and certification by the American Speech-Language-Hearing Association in the form of the Certificate of Clinical Competence, Speech-Language Pathology (CCC-SLP). Graduates who wish to work in school Speech-Language Pathology will be eligible for licensure by the South Carolina Department of Education as well as other states. \*See South Carolina and ASHA School SLP websites for additional information.

### MISSION STATEMENT

The MSLP Program seeks to provide a comprehensive academic course of study combined with diverse clinical experiences in order to prepare outstanding allied healthcare professionals capable of providing high quality assessment and treatment for individuals with communication and swallowing disorders in the Pee Dee, South Carolina area and beyond.

### ADMISSION REQUIREMENTS

All applications to the program must be submitted online via the Council of Academic Programs in Communication Science and Disorders (CAPCSD) website. Applications are due February 15th each year. To complete the application a student must

1. Have earned a Pre-Professional Bachelor’s Degree in Speech-Language Pathology, or a Bachelor’s degree in a related area, from a regionally, nationally or internationally, accredited institution with at least a 3.0 grade point average based on a 4.0 scale.
2. Submit official transcript (s) of all undergraduate and graduate work from accredited institutions.
3. Pay the non-refundable CAPCSD application fee.
4. Submit scores from the Graduate Record Examination (GRE) taken within the last five years. Current GRE scores preferred.
5. Provide a criminal background check before their face-to-face interview.
6. Provide three letters of recommendation from former professors and/or professional associates/supervisors who can attest to the academic potential of the applicant. Letters from faculty members in academic settings are preferred. However, letters from nonacademic settings may be accepted, i.e., from supervisors and/or individuals capable of providing a professional assessment of the prospective student’s potential.
7. Provide proof of immunizations prior to matriculation.

8. Provide all Supplemental Application Materials i.e. Clinical Clock Hours, Writing Samples, and/or other materials as requested.
9. Provide a personal statement between 1,000 to 1,500 words explaining the reason for applying to the program and describing his/her professional background experience(s).
10. Have at least a 3.0 grade point average on a 4.0 scale in all program prerequisites.
11. Complete all required prerequisites at FMU or from a regionally, nationally or internationally, accredited university.

Completed applications are reviewed for merit by the FMUSLP Admissions Committee. Determination of merit is based upon consideration of all components of the application packet. In the admissions decision process, the committee considers both the merit of each application received, and the number of places available in the program at the time of the application. Offers for admission are given to those who show the most promise for success in MSLP graduate studies.

NON-SLP UNDERGRADUATE MAJORS: Candidates who have an undergraduate degree in a field other than Communication Sciences and Disorders must successfully complete a post-baccalaureate sequence of courses before receiving full admission into the FMU MSLP program. Prior to enrolling in the FMU MSLP PreSLP Preparation Courses, students must have completed the following natural sciences, sociological, psychological and quantitative courses:

12 hours of general education in natural, sociological, psychological and quantitative sciences required:

1. At least 3 credit hours in Biological Sciences
2. At least 3 credit hours in Social/Behavior Sciences
3. At least 3 credit hours in a Physical Science (must be Physics or Chemistry)
4. Three credit hours in a mathematically based Statistics course.

25 hours of Speech-Language Pathology, Audiology and Speech and Hearing Sciences Coursework required:

#### PRE-SLP PREPARATION COURSES

SLP 501 Anatomy and Physiology of the Speech and Hearing Mechanisms (3 hours)

SLP 504 Speech and Language Disorders Across the Lifespan (3 hours)

SLP 505 Principles of Assessment and Treatment in Communication Disorders (3 hours)

SLP 506 Multicultural Aspects of Communication Differences and Disorders (3 hours)

SLP 507 Language and Speech Development (3 hours)

SLP 508 Hearing Sciences and Audiological Disorders (3 hours)

SLP 510 Introduction to Speech and Language Disorders (3 hours)

SLP 515 Phonetics and Phonology (3 hours)

SLP 520 Structured Observations and Pre-Clinical Simulation Experiences: 25 to 50 clinical hours under the direct supervision of an ASHA Certified SLP and/or Audiologist (1 hour)

\*All students who have an undergraduate degree in a field other than Communication Disorders, must complete all required FMU Pre-SLP Preparation courses (specific leveler courses) prior to formally beginning the graduate degree sequence. Admission to our FMU MSLP Program is conditional until all courses in the Pre-SLP Preparation course work are completed with a B or better. Close and constant collaboration with the FMU MSLP Graduate Advisor is recommended to ensure all “leveler coursework” is acquired, submitted and accepted in order to finalize admission to the FMU MSLP Program.

## COURSE REPETITION

Only a grade lower than B can be raised by repetition of the course; a reexamination is not permitted. Any course that is repeated must be taken at FMU. A course may be repeated only once. Speech-Language Pathology students may repeat only one course. That one course may be repeated only with written approval from the MSLP Program Director. Only the higher grade of the repeated course will be counted in the calculation of the grade point average.

## DEGREE AND NON-GRADUATE DEGREE STATUS

1. Students are accepted to graduate study in Speech-Language Pathology (SLP) as either graduate students or as graduate non-degree students.
2. Graduate non-degree students do not seek a Master’s degree at FMU, but choose to take courses necessary to complete prerequisite requirements for admission to the Masters of Speech-Language Pathology at FMU or other institutions. In addition, Graduate Non-Degree students may wish to take courses for professional growth, personal enrichment and/or licensure.
3. Changing from Non-Degree to Degree status will require a new application, which must be completed and submitted to the MSLP, following all MSLP requirements as delineated in the FMU catalog.
4. Completion of the FMU Pre-SLP Preparation Course Sequence is an independent process necessary for persons interested in obtaining a Master’s Degree in SLP (MSLP), because they do not hold the Bachelor’s degree in Speech-Language Pathology.
5. The FMU Pre-SLP preparation Course Sequence consists of 25 credit hours in Speech-Language Pathology (critical leveler courses) and 12 General Education/ Basic Sciences courses.
6. The MSLP will provide individuals interested in obtaining a MSLP from Francis Marion University with a list of all FMU Pre-SLP Preparation required courses.
7. Individuals wishing to earn a Master’s Degree in Speech-Language Pathology at FMU must complete all FMU Pre-SLP Preparation Courses before they obtain full admission to the FMU Masters of Speech-Language Pathology.
8. Non-SLP majors seeking to matriculate in the SLP (MSLP) at FMU may apply for admission; however, they will be admitted conditionally. Full admission to the Francis Marion University Masters of Speech-Language Pathology will only be granted to persons holding an undergraduate (Pre-Professional) degree in Speech-Language Pathology or having completed the FMU required SLP pre-requisites.

## TO

### GRADUATE SPEECH-LANGUAGE PATHOLOGY PROGRAM

#### MASTER OF SPEECH-LANGUAGE PATHOLOGY

Department of Speech-Language Pathology Chair:  
Dr. Frances A. Burns

The Master of Speech-Language Pathology (MSLP) program at Francis Marion University is a Candidate for Accreditation by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700. Candidacy status is a “pre-accreditation” status with the CAA, awarded to developing or emerging programs for a maximum period of 5 years.

Graduates will be eligible for certification by the American Speech-Language-Hearing Association in the form of the Certificate of Clinical Competence, Speech-Language Pathology (CCC-SLP) and state licensure. Graduates who wish to work in public schools will be eligible for licensure by the South Carolina Department of Education and other states. \*See South Carolina and ASHA School SLP websites for additional information.

#### MISSION STATEMENT

The MSLP Program seeks to provide a comprehensive academic course of study combined with diverse clinical experiences in order to prepare outstanding allied healthcare professionals capable of providing high quality assessment and treatment for individuals with communication and swallowing disorders in the Pee Dee region, in the state of South Carolina, and across the globe.

#### ADMISSION REQUIREMENTS

All applications to the program must be submitted online via the Council of Academic Programs in Communication Sciences and Disorders (CAPCSD) website. Applications are due May 15<sup>th</sup> each year. For early acceptance, applications are due by March 15<sup>th</sup>. To apply a student must

1. Have earned a Pre-Professional Bachelor’s Degree in Speech-Language Pathology, or a Bachelor’s degree in a related area, from a regionally, nationally, or internationally accredited institution with at least a 3.0 grade point average based on a 4.0 scale.

2. Pay the non-refundable CAPCSD application fee

The following is a list of materials that must be submitted via CAPCSD:

1. Submit official transcript(s) of all undergraduate and graduate work from accredited institutions.

2. Submit scores from the Graduate Record Examination (GRE) taken within the last five years.

3. Provide three letters of recommendation from former professors and/or professional associates/supervisors who can attest to the academic potential of the applicant. However, letters from nonacademic settings may be accepted, i.e., from supervisors and/or individuals capable of providing a professional assessment of the prospective student's academic potential.

4. Provide a personal statement of no more than 500 words, describing a personal experience which highlights the qualities you possess that illustrate why you will be successful both academically and clinically.

Completed applications are reviewed for merit by the FMU SLP Admissions Committee. Determination of merit is based upon consideration of all components of the application packet. In the admissions decision process, the committee considers both the merit of each application received and the number of places available in the program at the time of the application. Offers for admission are given to those who show the most promise for success in MSLP graduate studies.

**NON-SLP UNDERGRADUATE MAJORS:** Candidates who have an undergraduate degree in a field other than Communication Sciences and Disorders can complete post-baccalaureate courses with a B or above to become eligible to apply for the MSLP Program. Students must complete the following required 12 credit hours of biological, physical, and social/behavioral sciences, and statistics courses:

1. At least 3 credit hours in Biological Sciences (including biology, human anatomy and physiology, neuroanatomy and neurophysiology, human genetics, and veterinary science)
2. At least 3 credit hours in a Physical Science (must be Physics or Chemistry)
3. At least 3 credit hours in Social/Behavior Sciences (including psychology, sociology, anthropology, or public health)
4. Three credit hours in a stand-alone mathematically based Statistics course.

These courses can be taken while completing the post-baccalaureate courses.

#### POST-BACCALAUREATE COURSES REQUIRED

SLP 501: Anatomy and Physiology of the Speech and Hearing Mechanisms (3 hours)

SLP 507: Speech and Language Development (3 hours)

SLP 509: Introduction to Audiology (3 hours)

SLP 510: Introduction to Communication Disorders (3 hours)

SLP 515: Phonetics (3 hours)

SLP 520: Structured Observations and Pre-Clinical Simulation Experiences  
As needed to obtain observation hours. (1 hour)

#### PRE-SLP PREPARATION COURSES



SLP 501: Anatomy and Physiology of the Speech and Hearing Mechanisms (3 hours)  
SLP 504: Speech and Language Disorders Across the Lifespan (3 hours)  
SLP 505: Principles of Assessment and Treatment in Communication Disorders (3 hours)  
SLP 506: Multicultural Aspects of Communication Differences and Disorders (3 hours)  
SLP 507: Speech and Language Development (3 hours)  
SLP 509: Introduction to Audiology (3 hours)  
SLP 510: Introduction to Communication Disorders (3 hours)  
SLP 515: Phonetics (3 hours)  
SLP 520: Structured Observations and Pre-Clinical Simulation Experiences (1 hour)

## COURSE REPETITION

Only a grade lower than B can be raised by repetition of the course; a reexamination is not permitted. Any course that is repeated must be taken at FMU. A course may be repeated only once. Speech-Language Pathology students may repeat only one course. That one course may be repeated only with written approval from the MSLP Program Chair. Only the higher grade of the repeated course will be counted in the calculation of the grade point average.

## DEGREE AND NON-GRADUATE DEGREE STATUS

1. Students are accepted to graduate study in Speech-Language Pathology (SLP) as either graduate students or as graduate non-degree students.
2. Graduate non-degree students do not seek a Master's degree at FMU, but choose to take courses necessary to complete prerequisite requirements for admission to the Masters of Speech-Language Pathology at FMU or other institutions. In addition, Graduate Non-Degree students may wish to take courses for professional growth, personal enrichment and/or licensure.
3. Completion of the FMU Pre-SLP Preparation Course Sequence is an independent process necessary for persons interested in obtaining a Master's Degree in SLP because they do not hold the Bachelor's degree in Speech-Language Pathology.
4. The Post-Baccalaureate Courses consist of 15 required credit hours in Speech-Language Pathology (Pre-SLP Preparation courses) and 12 Sciences credit hours of science and statistics courses.
5. Admission to the Francis Marion University Masters of Speech-Language Pathology Program will only be granted to those who have: 1) an undergraduate (Pre-Professional) degree in Speech-Language Pathology or 2) completed the required SLP post-baccalaureate courses.

## ACADEMIC STANDING

1. A cumulative grade point average of 3.0 is required for graduation.
2. Receiving a second C will result in academic probation.

3. Receiving a third C will result in dismissal from the program, even if a C has been replaced with a higher grade

#### 4. Proposals from Department of Psychology

a. **ADD** on page 201 in the current printed catalog in order by number, the course:

**505 Theoretical and Conceptual Foundations of Behavior Analysis (3)** (Prerequisite: PSYC 501 or permission of department). This course reviews the conceptual, theoretical, and philosophical foundations of behavior analysis. This class reviews the goals (description, prediction, and control) of a scientific study of behavior and associated philosophical underpinnings and assumptions (e.g, selectionism, pragmatism, empiricism, determinism, behaviorism, and parsimony). The readings are comprised of a textbook and seminal articles concerned with radical behaviorism and a natural science approach to the study of behavior, some of the component areas comprising behavior analysis (the experimental analysis of behavior, applied behavior analysis, and associated professional practice), and the dimensions of Applied Behavior Analysis.

#### **RATIONALE**

Currently the accrediting body of the Behavior Analysis Certification Board (BACB) has added course requirements to be eligible for certification as a Behavior Analyst (BCBA). Additionally, for FMU's Master of Science in Applied Psychology in Applied Behavior Analysis (ABA) degree to remain a Verified Course Sequence the course must be added.

b. **ADD** on page 201 in the current printed catalog in order by number, the course:

**506 Behavior Analytic Approaches to Staff Training, Supervision, and Personnel Management (1)** (Prerequisite: PSYC 501 or permission of department). This course reviews research-and-data based approaches to supervising and training students and staff to conduct behavior analytic assessments and implement behavioral interventions. In particular, this course reviews the rationales for providing supervision, evaluation of supervision effectiveness, and risks that arise from inadequate supervision. Course content also includes developing global performance expectations, using skill assessments to generate goals for staff, and using data-based strategies to facilitate performance improvements. An emphasis is placed on developing individualized strategies for performance improvement that are informed by functional assessment and determination of variables influencing student / staff performance, implemented and optimized based on performance data; and that utilize effective feedback and reinforcement contingencies. The readings are comprised of a selected chapters from a textbook and journal articles relevant to training and supervision in Applied Behavior Analysis.

#### **RATIONALE**

Currently the accrediting body of the Behavior Analysis Certification Board (BACB) has added course requirements to be eligible for certification as a Behavior Analyst (BCBA). Additionally,

for FMU's Master of Science in Applied Psychology in Applied Behavior Analysis (ABA) degree to remain a Verified Course Sequence the course must be added.

c. **CHANGE** on page 199 in the current printed catalog:

**FROM**

1. Complete a minimum of 39 graduate hours.  
BASIC CORE COURSES – 18 hours  
PSY 602 Biological Basis of Behavior  
PSY 605 Personality and Social Psychology  
PSY 632 Quantitative Psychology  
PSY 634 Developmental Psychology  
PSY 635 Learning and Cognition  
PSY 703 Counseling for Social Justice and Diversity

APPLIED SPECIALTY COURSES – 18 HOURS

- PSY 501 Principles of Applied Behavior Analysis
- PSY 502 Research Methods in Applied Behavior Analysis
- PSY 503 Ethics and Professional Practice in Applied Behavior Analysis
- PSY 504 Contemporary Topics and Applications of Applied Behavior Analysis
- PSY 574 Advanced Applications of Applied Behavior Analysis
- PSY 604 Behavioral Assessment and Intervention

INTERNSHIP – 3 HOURS

- PSY 699-B Internship: Applied Behavior Analysis

**TO**

1. Complete a minimum of 48 graduate hours.  
BASIC CORE COURSES – 22 HOURS  
PSY 602 Biological Basis of Behavior  
PSY 605 Personality and Social Psychology  
**PSY 615 Child/Adolescent Psychopathology OR PSY 620 Psychopathology**  
PSY 632 Quantitative Psychology  
PSY 634 Developmental Psychology  
PSY 635 Learning and Cognition  
PSY 703 Counseling for Social Justice and Diversity  
**PSY 700C Advanced Psychological Consultation/Intervention Practicum (required concurrently with PSY 703)**

APPLIED SPECIALTY COURSES – 23 HOURS

- PSY 501 Principles of Applied Behavior Analysis
- PSY 502 Research Methods in Applied Behavior Analysis
- PSY 503 Ethics and Professional Practice in Applied Behavior Analysis

PSY 504 Contemporary Topics and Applications of Applied Behavior Analysis  
PSY 505 Theoretical and Conceptual Foundations of Behavior Analysis  
PSY 506 Behavior Analytic Approaches to Staff Training, Supervision, and Personnel Management  
PSY 574 Advanced Applications of Applied Behavior Analysis  
PSY 604 Behavioral Assessment and Intervention  
PSY 600C Psychological Consultation/Intervention Practicum (required concurrently with PSY 604)

INTERNSHIP – 3 HOURS

PSY 699-B Internship: Applied Behavior Analysis

### **RATIONALE**

Currently the accrediting body of the Behavior Analysis Certification Board (BACB) has added course requirements to be eligible for certification as a Behavior Analyst (BCBA). Additionally, for FMU's Master of Science in Applied Psychology in Applied Behavior Analysis (ABA) degree to remain a Verified Course Sequence the course must be added. The program currently requires PSYC 703, but the practicum is required for this course. The 700C course was inadvertently left off of the original proposal. Further, to work in the state of SC students must take a Psychopathology Course (either adult or child).

d. **CHANGE** on pages 198 - 199 in the current printed catalog:

To be guaranteed timely consideration for acceptance into the Master of Science in Applied Psychology program, all of the above materials must be submitted no later than:

Fall Admission: February 15\*

Spring Admission: October 15

**\*NOTE:** Applicants wishing to enter the School Psychology option at the MSAP level are only accepted for the Fall Admission Application Cycle. Applicants with a previously obtained master's degree who are applying for only the SSP portion of the School Psychology Option may apply during either the Fall or Spring Application Cycle.

### **TO**

To be guaranteed timely consideration for acceptance into the Master of Science in Applied Psychology program, all of the above materials must be submitted no later than February 15.

### **RATIONALE**

None of the current graduate programs allow admission for Spring admission.