

UNIVERSITY CURRICULUM COMMITTEE MINUTES

Date: December 5, 2019

Minutes Approved by: \_\_\_\_\_



Date Approved \_\_\_\_\_

1/30/2020

TO: Dr. Alberto Ruiz  
Vice President of Academic Affairs

FROM: Dr. Lon Smith, Chair  
University Curriculum Committee

FACULTY MEMBERS PRESENT: Jeff Anderson, Jordan Anderson, E. Ardoin, S.

Baggarly, R. Carpenter, Y. Chu, Y. Dupre, C. Gissendanner, J. Herrock, K.

Kaminski, C. Kogut, A. Rodriguez, G. Smith, L. Smith, C. Vangelisti

FACULTY MEMBERS ABSENT: A. Horne, M. James

FACULTY MEMBERS EXCUSED: S. Jois, J. Whited, A. Wiltcher

EX-OFFICIO MEMBERS PRESENT: D. DeJarnette, K. Smith

EX-OFFICIO MEMBERS ABSENT: D. Beaver, K. Dawson, A. Thompson

EX-OFFICIO MEMBERS EXCUSED: M. Lowe

1. THE PROGRAM OF COMPUTER SCIENCE requests:

Presenter:	L. Smith
Action:	<b>Change degree plan for B.S. in Computer Science, change Advanced Technical Electives</b>

**Current Catalog Content:**

**Note:**

\* See 2019-2020 Undergraduate Core Curriculum requirements.

**1 Mathematics elective: may include MATH 1032, MATH 2002, CSCI 3073 or approved Mathematics elective.**

**2 Physics electives: may include (PHYS 2003 and PHYS 2004; or PHYS 2007 and PHYS 2008) and PHYS 2009 and PHYS 2010 or approved Physics elective.**

**3 Advanced Technical Electives: may include CINS 3041, CINS 3045, or MATH 4009.**

**Proposed Catalog Content:**

**Note:**

\* See 2019-2020 Undergraduate Core Curriculum requirements.

**1 Mathematics elective: may include MATH 1032, MATH 2002, CSCI 3073 or approved Mathematics elective.**

**2 Physics electives: may include (PHYS 2003 and PHYS 2004; or PHYS 2007 and PHYS 2008) and PHYS 2009 and PHYS 2010 or approved Physics elective.**

**3 Advanced Technical Electives: may include CINS 3041, CINS 3045, CSCI 4061 or MATH 4009.**

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	Only degree designation of Advanced Technical Electives changed, remainder of degree plan is unchanged.

2. THE SCHOOL OF CLINICAL SCIENCES requests:

Presenter:	G. Smith
Action:	<b>Change course prerequisites for PHRD 5059 (Selected Psychiatric and Substance Abuse Disorder Topics)</b>
<b>Current Course Description:</b>	
<p><b>PHRD 5059 - Selected Psychiatric and Substance Abuse Disorder Topics</b></p> <p>(3 Cr.) This course will expand the pharmacy students' exposure to selected topics in behavioral health including pharmacotherapy of selected psychiatric topics. Prerequisites: <b>P3 Status</b></p>	
<b>Proposed Course Description:</b>	
<p><b>PHRD 5059 - Selected Psychiatric and Substance Abuse Disorder Topics</b></p> <p>(3 Cr.) This course will expand the pharmacy students' exposure to selected topics in behavioral health including pharmacotherapy of selected psychiatric topics. Prerequisites: <b>PHRD 4099</b></p>	
Credit Hours:	
Current Level:	G
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020

First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

3. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change course description for BIOL 1010 (Human Biology)</b>
<b>Current Course Description:</b>	
<b>BIOL 1010 - Human Biology</b>	
<b>3 cr.</b>	
A comprehensive study of the structure and function of the human body and of the ecological problems that face mankind today. Non-majors only.	
Prerequisite(s): "C" or better in <b>BIOL 1001</b> .	
<b>Proposed Course Description:</b>	
<b>BIOL 1010 - Human Biology</b>	
<b>3 cr.</b>	
A comprehensive study of the structure and function of the human body and of the ecological problems that face mankind today. Cannot be taken for credit if credit has been awarded for BIOL 1015. Non-majors only.	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	Prerequisite removed

4. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
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Action:	<b>Change course description for BIOL 2026 (Human Anatomy and Physiology)</b>
<b>Current Course Description:</b>	
<b>BIOL 2026 - Human Anatomy and Physiology</b>	
<b>3 cr.</b>	
Structure and function of the principal organ systems of the human body. Cannot be taken for credit if credit has been awarded for <b>BIOL 3011 or BIOL 3012</b> . Non-majors only.	
<b>Proposed Course Description:</b>	
<b>BIOL 2026 - Human Anatomy and Physiology</b>	
<b>3 cr.</b>	
Structure and function of the principal organ systems of the human body. Cannot be taken for credit if credit has been awarded for <b>BIOL 3010</b> . Non-majors only.	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

5. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change course description for BIOL 4044 (Plant Ecology)</b>
<b>Current Course Description:</b>	
<b>BIOL 4044 - Plant Ecology</b>	
<b>4 cr.</b>	
The study of plant populations and communities and their habitat with emphasis on the communities of the south central United States.	
Three hours lecture and three hours laboratory.	
Prerequisite(s): "C" or better in <b>BIOL 3002</b> .	

**Proposed Course Description:**

**BIOL 4044 - Plant Ecology**

**4 cr.**

The study of plant populations and communities and their habitat with emphasis on the communities of the south central United States.

Three hours lecture and three hours laboratory.

Prerequisite(s): "C" or better in [BIOL 1022](#), [BIOL 1023](#).

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

6. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change course description for BIOL 4070 (Immunology - Concepts and Principles)</b>

**Current Course Description:**

**BIOL 4070 - Immunology - Concepts and Principles**

**3 cr.**

Detailed discussion of the cellular and humoral components of the immune system and their interrelationships in the production and control, at both the genetic and cellular levels, of immune responses.

Prerequisite(s): "C" or better in [BIOL 2014](#) or [BIOL 1015](#) or [BIOL 3012](#) or permission of the instructor.

**Proposed Course Description:**

**BIOL 4070 - Immunology - Concepts and Principles**

<b>3 cr.</b>	
Detailed discussion of the cellular and humoral components of the immune system and their interrelationships in the production and control, at both the genetic and cellular levels, of immune responses.	
Prerequisite(s): "C" or better in <a href="#">BIOL 2014</a> or permission of the instructor.	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

7. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change course description for BIOL 4097 (Undergraduate Research Participation)</b>
<b>Current Course Description:</b>	
<b>BIOL 4097 - Undergraduate Research Participation</b>	
3 cr.	
An honors course in which the student performs independent research.	
Prerequisite(s): approval of department head.	
<b>Proposed Course Description:</b>	
<b>BIOL 4097 - Undergraduate Research Participation</b>	
1-3 cr.	
Independent Research	
Prerequisite(s): approval of department head.	
Credit Hours:	
Current Level:	U
Activity Type:	

Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	Variable
Variable Range:	1-3
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	Change to Variable credit

8. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change course description for BIOL 4098 (Undergraduate Research Participation)</b>
<b>Current Course Description:</b>	
<b>BIOL 4098 - Undergraduate Research Participation</b>	
3 cr.	
A continuation of BIOL 4097.	
<b>Proposed Course Description:</b>	
<b>BIOL 4098 - Undergraduate Research Participation</b>	
1-3 cr.	
Independent Research	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	Variable
Variable Range:	1-3
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	Change to Variable credit

9. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change credit hour range for BIOL 5099 (Thesis)</b>
<b>Current Course Description:</b>	
<b>BIOL 5099 - Thesis</b>	
(1-6 Cr.) Grades of CR (Credit) or NC (No Credit) will be awarded.	
<b>Proposed Course Description:</b>	
<b>BIOL 5099 - Thesis</b>	
(1-9 Cr.) Grades of CR (Credit) or NC (No Credit) will be awarded.	
Credit Hours:	
Current Level:	G
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

10. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove BIOL 1050 (Integrated Biology for Education Majors)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	



Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

11. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change Biology, Concentration in Molecular Biology and Biotechnology</b>

**Current Degree Plan:**

## **Biology, Concentration in Molecular Biology and Biotechnology, B.S.**

### **Additional Requirements for Concentration in Molecular Biology and Biotechnology**

**See also Biology, B.S. (260101)**

- [BIOL 1020 - Principles of Biology I](#) and
- [BIOL 1021 - Principles of Biology I Laboratory](#)
- [BIOL 1022 - Principles of Biology II](#) and
- [BIOL 1023 - Principles of Biology II Laboratory](#)
- [BIOL 2001 - Environmental Science](#)
- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)
- [BIOL 2020 - Cell Biology](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3005 - Genetics](#)
- [BIOL 3008 - Introduction to Evolutionary Biology](#)
- [BIOL 4099 - Senior Biology Seminar](#)
- 16 additional hours in Biology, with at least 13 hours of 3000- 4000-level and a minimum of 8 hours in 4000-level cell/molecular/physiology/microbiology elective courses ([Biology, B.S. \(260101\)](#))

### **No more than 7 hours from:**

- [BIOL 4012 - Plant Physiology](#)
- [BIOL 4014 - Animal Physiology](#)
- [BIOL 4017 - Developmental Biology](#)
- [BIOL 4018 - Developmental Biology Laboratory](#)
- [BIOL 4019 - Advanced Concepts in Genetics and Molecular Biology](#)
- [BIOL 4096 - Cooperative Internships](#)
- [BIOL 4097 - Undergraduate Research Participation](#)
- [BIOL 4098 - Undergraduate Research Participation](#)

## Additional courses:

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- [CHEM 1007 - General Chemistry I](#) and
- [CHEM 1009 - General Chemistry Laboratory I](#)
  
- [CHEM 1008 - General Chemistry II](#) and
- [CHEM 1010 - General Chemistry Laboratory II](#)
  
- [CHEM 2030 - Organic Chemistry I](#) and
- [CHEM 2031 - Organic Chemistry Laboratory I](#)
  
- [CHEM 2032 - Organic Chemistry II](#) and
- [CHEM 2033 - Organic Chemistry Laboratory II](#)
  
- [CHEM 3050 - Biochemistry I](#) and
- [CHEM 3052 - Biochemistry II](#)
  
- [PHYS 2003 - General Physics I](#) and
- [PHYS 2004 - General Physics II](#)

### Proposed Degree Plan:

## Biology, Concentration in Molecular Biology and Biotechnology, B.S.

### Additional Requirements for Concentration in Molecular Biology and Biotechnology

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#### See also [Biology, B.S. \(260101\)](#)

- [BIOL 1020 - Principles of Biology I](#) and
- [BIOL 1021 - Principles of Biology I Laboratory](#)
  
- [BIOL 1022 - Principles of Biology II](#) and
- [BIOL 1023 - Principles of Biology II Laboratory](#)
  
- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)
  
- [BIOL 2018 - Principles of Biotechnology](#)
- [BIOL 2020 - Cell Biology](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3005 - Genetics](#)
- [BIOL 4030 - DNA Analysis in Molecular Biology](#)
- [BIOL 4099 - Senior Biology Seminar](#)
  
- 15 additional hours in Biology, with at least 12 hours of 3000- 4000-level and a minimum of 8 hours in 4000-level cell/molecular/physiology/microbiology elective courses, and a C and D elective ([Biology, B.S. \(260101\)](#))

### No more than 7 hours from:

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- [BIOL 4012 - Plant Physiology](#)
- [BIOL 4014 - Animal Physiology](#)
- [BIOL 4017 - Developmental Biology](#)
- [BIOL 4018 - Developmental Biology Laboratory](#)
- [BIOL 4019 - Advanced Concepts in Genetics and Molecular Biology](#)
- [BIOL 4096 - Cooperative Internships](#)
- [BIOL 4097 - Undergraduate Research Participation](#)
- [BIOL 4098 - Undergraduate Research Participation](#)

### Additional courses:

- [CHEM 1007 - General Chemistry I](#) and
- [CHEM 1009 - General Chemistry Laboratory I](#)
- [CHEM 1008 - General Chemistry II](#) and
- [CHEM 1010 - General Chemistry Laboratory II](#)
- [CHEM 2030 - Organic Chemistry I](#) and
- [CHEM 2031 - Organic Chemistry Laboratory I](#)
- [CHEM 2032 - Organic Chemistry II](#) and
- [CHEM 2033 - Organic Chemistry Laboratory II](#)
- [CHEM 3050 - Biochemistry I](#) and
- [CHEM 3052 - Biochemistry II](#)
- [PHYS 2003 - General Physics I](#) and
- [PHYS 2004 - General Physics II](#)

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

#### 12. THE SCHOOL OF SCIENCES requests:

Presenter:	A. Case Hanks
Action:	<b>Change title of BIOL 4060</b>
<b>Current Title:</b>	<b>Pathogenic Bacteriology</b>
<b>Proposed Title:</b>	

<b>Medical Microbiology</b>	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

13. THE SCHOOL OF SCIENCES requests:

Presenter:	T. Sasek
Action:	<b>Change degree plan for Biology, B.S.</b>
<b>Current Degree Plan:</b>	
<b>Biology, B.S. (260101)</b>	
<b>Undergraduate Requirements</b>	
<p>The Biology major can be used to fulfill requirements for admission to medical<sup>1</sup>, dental, veterinary, optometry or pharmacy schools, for wildlife biology certification by The Wildlife Society<sup>2</sup>.</p> <p>Specific Biology courses are required for every student majoring in Biology: <a href="#">BIOL 1020/BIOL 1021</a>, <a href="#">BIOL 1022/BIOL 1023</a>, <a href="#">BIOL 3005</a> and <a href="#">BIOL 4099</a> (12 hrs). Every Biology major must also take at least one course from each of the four Biology list electives A, B, C, and D (14 hrs, see below). A course taken to fulfill requirements in one listed area may not count toward a second area. The remaining elective biology courses may be taken to fulfill subject area concentrations or certification requirements.</p> <p>For all 4000-level botany courses, <a href="#">BIOL 2004/BIOL 2005</a> or <a href="#">BIOL 2030</a> is recommended. For all 3000- and 4000-level zoology courses, <a href="#">BIOL 2010</a> or <a href="#">BIOL 2030</a> is recommended. For all 3000- and 4000-level cell and molecular courses, <a href="#">BIOL 2020</a> is recommended.</p> <p>A total of 45 credit hours in Biology courses for majors are required for a Biology degree. A minimum of 16 of the Biology elective credit hours must be 3000- or 4000 - level courses (courses taken for the four Biology list electives may count towards this requirement). A minimum final GPA of 2.0 in Biology courses is required for graduation with the B.S. in Biology. Students must earn a grade of "C" or higher in all Biology courses.</p> <p>Independent study (Biology 4003), Research Participation (<a href="#">BIOL 4097/BIOL 4098</a>), Cooperative Internships (<a href="#">BIOL 4096</a>) and Senior Biology Seminar (<a href="#">BIOL 4099</a>) can be used as Biology electives (not to exceed more than 7 credits total). Speak with your academic advisor before enrolling in any courses.</p> <p><sup>1</sup> Pre-medical and pre-dental students should see <a href="#">Premedicine, Predentistry, and Preoptometry</a>. Pre-pharmacy students should consult the pre-pharmacy curriculum.</p> <p><sup>2</sup> Wildlife Biology certification from the Wildlife Society. Certification requirements include 6 hours of wildlife management courses (Game Birds [<a href="#">BIOL 4086</a>], Game Mammals</p>	

[[BIOL 4088](#)]), 6 hours of wildlife biology that must include Mammalogy ([BIOL 4082](#)) or Ornithology ([BIOL 4084](#)) but may also include Herpetology ([BIOL 4080](#)), 3 hours of ecology ([BIOL 3002](#)), 9 hours of zoology (from [BIOL 2010](#), [BIOL 3030](#), [BIOL 3032](#), [BIOL 4014](#), and [BIOL 4078](#)), or 9 hours of botany (from [BIOL 2004/BIOL 2005](#), [BIOL 4012](#), [BIOL 4034](#), [BIOL 4036](#), [BIOL 4040](#), and [BIOL 4051](#)). A total of at least 36 credit hours must be earned from the five subject areas, wildlife management wildlife biology, ecology, zoology, and botany. Other requirements include 9 hours of physical sciences from two different disciplines; 9 hours of quantitative sciences, statistics ([MATH 1016](#)), plus an elective such as computer science, mathematical modeling, or sampling design; 12 hours of communications ([ENGL 1001](#), [ENGL 1002](#), CMST 2001 [non-science elective]; and [ENGL 3024](#) ([non-science elective])); and 6 hours of Policy, Administration, and Law (Resource Conservation & Management [AGRO 3001] and Resource & Environmental Economics [[ECON 3090](#)]).

## Freshman Year

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- [BIOL 1020](#) - Principles of Biology I <sup>cnp</sup>
- [BIOL 1021](#) - Principles of Biology I Laboratory
- [BIOL 1022](#) - Principles of Biology II <sup>cnp</sup>
- [BIOL 1023](#) - Principles of Biology II Laboratory
- [CHEM 1007](#) - General Chemistry I <sup>cnp</sup>
- [CHEM 1008](#) - General Chemistry II
- [CHEM 1009](#) - General Chemistry Laboratory I
- [CHEM 1010](#) - General Chemistry Laboratory II
- Core English Composition **6 cr.** \*
  
- [MATH 1012](#) - Trigonometry <sup>cm</sup> or
- [MATH 1013](#) - Elementary Functions <sup>cm</sup> or
- [MATH 1014](#) - Applied Calculus
  
- Core Social Science **3 cr.** \*
- Core Fine Arts **3 cr.** \*
- [UNIV 1001](#) - University Seminar

## Total Hours 31

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## Sophomore Year

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- Biology List Elective (A-D) **7 cr.**
- [MATH 1016](#) - Elementary Statistics <sup>cm</sup>
- Foreign Language (same language) **6 cr.**
- [CSCI 1070](#) - Computer Literacy
- Core Humanities **3 cr.** \*
- [CHEM 2030](#) - Organic Chemistry I
- [CHEM 2031](#) - Organic Chemistry Laboratory I
- [CHEM 2032](#) - Organic Chemistry II
- [CHEM 2033](#) - Organic Chemistry Laboratory II

## Total Hours 30

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## Junior Year

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- [BIOL 3005](#) - Genetics

- [Biology List Elective \(A-D\)](#) **7 cr.**
- [Biology 2000/3000/4000 level Electives](#) **8 cr.**
- [ENGL 3024 - Professional Writing and Communication](#)
- [Core Social Science](#) **3 cr.** \*
- [Core Humanities](#) **6 cr.** \*

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## **Total Hours 30**

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## **Senior Year**

- [BIOL 4099 - Senior Biology Seminar](#)
- [Biology 2000/3000/4000 level Electives](#) **11 cr.**
- [Math, Physical Science Electives](#) **8 cr.**
- [Electives](#) **9 cr.**

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## **Total Hours 29**

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## **Total hours for degree 120**

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### **Note:**

\*Biology majors should see Core Curriculum requirements in the [COLLEGE OF ARTS, EDUCATION, AND SCIENCES](#) section of the catalog.

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## **Biology list electives A-D**

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### **A. Cell/Developmental/Molecular Biology:**

- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)
- [BIOL 2018 - Principles of Biotechnology](#)
- [BIOL 2020 - Cell Biology](#) \*
- [BIOL 3006 - Genetics Laboratory](#) (an elective that could accompany [BIOL 3005](#))
- [BIOL 4008 - Cellular Physiology](#) and
- [BIOL 4009 - Cellular Physiology Lab](#)
- [BIOL 4017 - Developmental Biology](#) and
- [BIOL 4018 - Developmental Biology Laboratory](#)
- [BIOL 4019 - Advanced Concepts in Genetics and Molecular Biology](#)
- [BIOL 4022 - Histology](#)
- [BIOL 4060 - Pathogenic Bacteriology](#) \*
- [BIOL 4062 - Food and Dairy Microbiology](#) and
- [BIOL 4063 - Food and Dairy Micro Laboratory](#)
- [BIOL 4066 - Advanced Microbiology](#) \*
- [BIOL 4068 - General Virology](#) and
- [BIOL 4069 - General Virology Laboratory](#)

- [BIOL 4070 - Immunology - Concepts and Principles](#) \*
- [BIOL 4112 - Microbes and Man](#)

## **B. Organismal Biology:**

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- [BIOL 2004 - Plant Diversity](#) and
- [BIOL 2005 - Plant Diversity Laboratory](#)
- [BIOL 2010 - Animal Diversity](#)
- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)
- [BIOL 2028 - Pathophysiology](#) \*
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 2040 - Human Anatomy](#) and
- [BIOL 2041 - Human Anatomy Laboratory](#)
- [BIOL 2050 - Economic Plants](#) \*
- [BIOL 3010 - Human Physiology](#) and
- [BIOL 3013 - Human Physiology Laboratory](#)
- [BIOL 3016 - Comparative Anatomy](#)
- [BIOL 3030 - Invertebrate Zoology](#)
- [BIOL 3032 - Vertebrate Zoology](#)
- [BIOL 4111 - Genetics and Society](#)
- [BIOL 4012 - Plant Physiology](#)
- [BIOL 4014 - Animal Physiology](#)
- [BIOL 4115 - Biomedical Ethics](#)
- [BIOL 4025 - Neurology](#) and
- [BIOL 4026 - Neurology Laboratory](#)
- [BIOL 4034 - Field Botany](#)
- [BIOL 4036 - Dendrology](#)
- [BIOL 4040 - Taxonomy of Vascular Plants](#)
- [BIOL 4051 - Field Biology](#)
- [BIOL 4072 - Introductory Parasitology](#) and
- [BIOL 4073 - Introductory Parasitology Laboratory](#)
- [BIOL 4078 - Ichthyology](#)
- [BIOL 4080 - Herpetology](#)
- [BIOL 4082 - Mammalogy](#)
- [BIOL 4084 - Ornithology](#) \*
- [BIOL 4086 - Game Birds](#)
- [BIOL 4088 - Game Mammals and Fur Bearers](#)

## **C. Ecology/Environmental Science/Wildlife & Fisheries:**

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- [BIOL 2001 - Environmental Science](#) \*

- [BIOL 3002 - Principles of Ecology](#)
- [BIOL 3020 - Conservation Biology](#) \*
- [BIOL 4004 - Ecological Methods](#) \*
- [BIOL 4044 - Plant Ecology](#)
- [BIOL 4051 - Field Biology](#)
- [BIOL 4064 - Water Management](#) \*
- [BIOL 4076 - Freshwater Ecology](#)
- [BIOL 4086 - Game Birds](#)
- [BIOL 4088 - Game Mammals and Fur Bearers](#)
- [BIOL 4113 - Ecosystems and Communities](#) \*

## D. Evolution/Systematics:

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- [BIOL 2004 - Plant Diversity](#) and
- [BIOL 2005 - Plant Diversity Laboratory](#)
- [BIOL 2010 - Animal Diversity](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3008 - Introduction to Evolutionary Biology](#) \*
- [BIOL 3016 - Comparative Anatomy](#)
- [BIOL 3030 - Invertebrate Zoology](#)
- [BIOL 3032 - Vertebrate Zoology](#)
- [BIOL 4036 - Dendrology](#)
- [BIOL 4040 - Taxonomy of Vascular Plants](#)
- [BIOL 4072 - Introductory Parasitology](#) and
- [BIOL 4073 - Introductory Parasitology Laboratory](#)
- [BIOL 4078 - Ichthyology](#)
- [BIOL 4080 - Herpetology](#)
- [BIOL 4082 - Mammalogy](#)
- [BIOL 4084 - Ornithology](#)
- [BIOL 4114 - Science, Biology, and Evolution](#) \*

### Note:

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\* Three credit hour course

Physical science electives must be taken from atmospheric science, chemistry, geoscience, math or physics.

## Proposed Degree Plan:

### Biology, B.S. (260101)

### Undergraduate Requirements

The Biology major can be used to fulfill requirements for admission to medical<sup>1</sup>, dental, veterinary, optometry or pharmacy schools, for wildlife biology certification by The Wildlife Society<sup>2</sup>.

Specific Biology courses are required for every student majoring in Biology: [BIOL 1020/BIOL 1021](#), [BIOL 1022/BIOL 1023](#), [BIOL 3005](#) and [BIOL 4099](#) (12 hrs). Every Biology major must also take at least one course from each of the four Biology list electives A, B, C, and D (14 hrs, see below). A course taken to fulfill requirements in one



listed area may not count toward a second area. The remaining elective biology courses may be taken to fulfill subject area concentrations or certification requirements. For all 4000-level botany courses, [BIOL 2004/BIOL 2005](#) or [BIOL 2030](#) is recommended. For all 3000- and 4000-level zoology courses, [BIOL 2010](#) or [BIOL 2030](#) is recommended. For all 3000- and 4000-level cell and molecular courses, [BIOL 2020](#) is recommended.

A total of 45 credit hours in Biology courses for majors are required for a Biology degree. A minimum of 16 of the Biology elective credit hours must be 3000- or 4000 - level courses (courses taken for the four Biology list electives may count towards this requirement). A minimum final GPA of 2.0 in Biology courses is required for graduation with the B.S. in Biology. Students must earn a grade of "C" or higher in all Biology courses.

A total of 8 credit hours in Math and Physical Science electives (see below) must be taken from the approved list of atmospheric science, chemistry, geoscience, math, or physics courses.

Independent study (Biology 4003), Research Participation ([BIOL 4097/BIOL 4098](#)), Cooperative Internships ([BIOL 4096](#)) and Senior Biology Seminar ([BIOL 4099](#)) can be used as Biology electives (not to exceed more than 7 credits total). Speak with your academic advisor before enrolling in any courses.

<sup>1</sup> Pre-medical and pre-dental students should see [Premedicine, Pre dentistry, and Preoptometry](#). Pre-pharmacy students should consult the pre-pharmacy curriculum.

<sup>2</sup> Wildlife Biology certification from the Wildlife Society. Certification requirements include 6 hours of wildlife management courses (Game Birds [[BIOL 4086](#)], Game Mammals [[BIOL 4088](#)]), 6 hours of wildlife biology that must include Mammalogy ([BIOL 4082](#)) or Ornithology ([BIOL 4084](#)) but may also include Herpetology ([BIOL 4080](#)), 3 hours of ecology ([BIOL 3002](#)), 9 hours of zoology (from [BIOL 2010](#), [BIOL 3030](#), [BIOL 3032](#), [BIOL 4014](#), and [BIOL 4078](#)), or 9 hours of botany (from [BIOL 2004/BIOL 2005](#), [BIOL 4012](#), [BIOL 4034](#), [BIOL 4036](#), [BIOL 4040](#), and [BIOL 4051](#)). A total of at least 36 credit hours must be earned from the five subject areas, wildlife management wildlife biology, ecology, zoology, and botany. Other requirements include 9 hours of physical sciences from two different disciplines; 9 hours of quantitative sciences, statistics ([MATH 1016](#)), plus an elective such as computer science, mathematical modeling, or sampling design; 12 hours of communications ([ENGL 1001](#), [ENGL 1002](#), CMST 2001 [non-science elective]; and [ENGL 3024](#) ([non-science elective]); and 6 hours of Policy, Administration, and Law (Resource Conservation & Management [[AGRO 3001](#)] and Resource & Environmental Economics [[ECON 3090](#)]).

## Freshman Year

- [BIOL 1020](#) - Principles of Biology I <sup>cnp</sup>
- [BIOL 1021](#) - Principles of Biology I Laboratory
- [BIOL 1022](#) - Principles of Biology II <sup>cnp</sup>
- [BIOL 1023](#) - Principles of Biology II Laboratory
- [CHEM 1007](#) - General Chemistry I <sup>cnp</sup>
- [CHEM 1008](#) - General Chemistry II
- [CHEM 1009](#) - General Chemistry Laboratory I
- [CHEM 1010](#) - General Chemistry Laboratory II
- Core English Composition **6 cr.** \*
  
- [MATH 1012](#) - Trigonometry <sup>cm</sup> or
- [MATH 1013](#) - Elementary Functions <sup>cm</sup> or
- [MATH 1014](#) - Applied Calculus

- Core Social Science **3 cr.** \*
- Core Fine Arts **3 cr.** \*
- UNIV 1001 - University Seminar

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## **Total Hours 31**

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### **Sophomore Year**

- Biology List Elective (A-D) **7 cr.**
- MATH 1016 - Elementary Statistics <sup>cm</sup>
- Foreign Language (same language) **6 cr.**
- CSCI 1070 - Computer Literacy
- Core Humanities **3 cr.** \*
- CHEM 2030 - Organic Chemistry I
- CHEM 2031 - Organic Chemistry Laboratory I
- CHEM 2032 - Organic Chemistry II
- CHEM 2033 - Organic Chemistry Laboratory II

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## **Total Hours 30**

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### **Junior Year**

- BIOL 3005 - Genetics
- Biology List Elective (A-D) **7 cr.**
- Biology 2000/3000/4000 level Electives **8 cr.**
- ENGL 3024 - Professional Writing and Communication
- Core Social Science **3 cr.** \*
- Core Humanities **6 cr.** \*

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## **Total Hours 30**

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### **Senior Year**

- BIOL 4099 - Senior Biology Seminar
- Biology 2000/3000/4000 level Electives **11 cr.**
- **Math and Physical Science Electives 8 cr.**
- Electives **9 cr.**

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## **Total Hours 29**

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## **Total hours for degree 120**

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### **Note:**

\*Biology majors should see Core Curriculum requirements in the COLLEGE OF ARTS, EDUCATION, AND SCIENCES section of the catalog.

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### **Biology list electives A-D**

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#### **A. Cell/Developmental/Molecular Biology:**

- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)

- [BIOL 2018 - Principles of Biotechnology](#)
- [BIOL 2020 - Cell Biology](#) \*
- [BIOL 3006 - Genetics Laboratory](#) (an elective that could accompany [BIOL 3005](#))
- [BIOL 4008 - Cellular Physiology](#) and
- [BIOL 4009 - Cellular Physiology Lab](#)
- [BIOL 4017 - Developmental Biology](#) and
- [BIOL 4018 - Developmental Biology Laboratory](#)
- [BIOL 4019 - Advanced Concepts in Genetics and Molecular Biology](#)
- [BIOL 4022 - Histology](#)
- [BIOL 4060 - Pathogenic Bacteriology](#) \*
- [BIOL 4062 - Food and Dairy Microbiology](#) and
- [BIOL 4063 - Food and Dairy Micro Laboratory](#)
- [BIOL 4066 - Advanced Microbiology](#) \*
- [BIOL 4068 - General Virology](#) and
- [BIOL 4069 - General Virology Laboratory](#)
- [BIOL 4070 - Immunology - Concepts and Principles](#) \*
- [BIOL 4112 - Microbes and Man](#)

## **B. Organismal Biology:**

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- [BIOL 2004 - Plant Diversity](#) and
- [BIOL 2005 - Plant Diversity Laboratory](#)
- [BIOL 2010 - Animal Diversity](#)
- [BIOL 2014 - Introductory Microbiology](#) and
- [BIOL 2015 - Introductory Microbiology Laboratory](#)
- [BIOL 2028 - Pathophysiology](#) \*
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 2040 - Human Anatomy](#) and
- [BIOL 2041 - Human Anatomy Laboratory](#)
- [BIOL 2050 - Economic Plants](#) \*
- [BIOL 3010 - Human Physiology](#) and
- [BIOL 3013 - Human Physiology Laboratory](#)
- [BIOL 3016 - Comparative Anatomy](#)
- [BIOL 3030 - Invertebrate Zoology](#)
- [BIOL 3032 - Vertebrate Zoology](#)
- [BIOL 4111 - Genetics and Society](#)
- [BIOL 4012 - Plant Physiology](#)
- [BIOL 4014 - Animal Physiology](#)
- [BIOL 4115 - Biomedical Ethics](#)

- [BIOL 4025 - Neurology and](#)
- [BIOL 4026 - Neurology Laboratory](#)
- [BIOL 4034 - Field Botany](#)
- [BIOL 4036 - Dendrology](#)
- [BIOL 4040 - Taxonomy of Vascular Plants](#)
- [BIOL 4051 - Field Biology](#)
- [BIOL 4072 - Introductory Parasitology and](#)
- [BIOL 4073 - Introductory Parasitology Laboratory](#)
- [BIOL 4078 - Ichthyology](#)
- [BIOL 4080 - Herpetology](#)
- [BIOL 4082 - Mammalogy](#)
- [BIOL 4084 - Ornithology \\*](#)
- [BIOL 4086 - Game Birds](#)
- [BIOL 4088 - Game Mammals and Fur Bearers](#)

### **C. Ecology/Environmental Science/Wildlife & Fisheries:**

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- [BIOL 2001 - Environmental Science \\*](#)
- [BIOL 3002 - Principles of Ecology](#)
- [BIOL 3020 - Conservation Biology \\*](#)
- [BIOL 4004 - Ecological Methods \\*](#)
- [BIOL 4044 - Plant Ecology](#)
- [BIOL 4051 - Field Biology](#)
- [BIOL 4064 - Water Management \\*](#)
- [BIOL 4076 - Freshwater Ecology](#)
- [BIOL 4086 - Game Birds](#)
- [BIOL 4088 - Game Mammals and Fur Bearers](#)
- [BIOL 4113 - Ecosystems and Communities \\*](#)

### **D. Evolution/Systematics:**

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- [BIOL 2004 - Plant Diversity and](#)
- [BIOL 2005 - Plant Diversity Laboratory](#)
- [BIOL 2010 - Animal Diversity](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3008 - Introduction to Evolutionary Biology \\*](#)
- [BIOL 3016 - Comparative Anatomy](#)
- [BIOL 3030 - Invertebrate Zoology](#)
- [BIOL 3032 - Vertebrate Zoology](#)
- [BIOL 4036 - Dendrology](#)
- [BIOL 4040 - Taxonomy of Vascular Plants](#)
- [BIOL 4072 - Introductory Parasitology and](#)
- [BIOL 4073 - Introductory Parasitology Laboratory](#)
- [BIOL 4078 - Ichthyology](#)
- [BIOL 4080 - Herpetology](#)
- [BIOL 4082 - Mammalogy](#)
- [BIOL 4084 - Ornithology](#)

- [BIOL 4114 - Science, Biology, and Evolution](#) \*

**Note:**

\* Three credit hour course

**Math and Physical Science electives**

- ATMS 1001 - Introduction to the Atmosphere
- ATMS 1002 - Introduction to Severe Weather
- ATMS 1003 - Atmospheric Lab I
- ATMS 1004 - Atmospheric Lab II
- ATMS 1006 - Intro to Climate Change
- ATMS 1025 - Intro to Forecasting Lab
- ATMS 2000 - Forecasting Lab
- ATMS 2005 - General Meteorology
- ATMS 3010 - Fundamentals of Climatic Analysis
  
- CHEM 2040 - Quantitative Analysis
- CHEM 2041 - Quantitative Analysis Laboratory
- CHEM 3001 - Descriptive Inorganic
- CHEM 3020 - Physical Chemistry I
- CHEM 3021 - Physical Chemistry Laboratory I
- CHEM 3022 - Physical Chemistry II
- CHEM 3023 - Physical Chemistry Laboratory II
- CHEM 3050 - Biochemistry I
- CHEM 3051 - Biochemistry Laboratory I
- CHEM 3052 - Biochemistry II
- CHEM 4007 - Instrumental Analysis
- CHEM 4013 - Adv Inorganic
- CHEM 4020 - Adv Physical
- CHEM 4031 - Intermediate Organic
- CHEM 4040 - Medicinal Chemistry
  
- GEOS 1001 - Earth Science
- GEOS 1002 - Natural Hazards and Disasters
- GEOS 2080 - Oceanography
- GEOS 4035 - Principles of GIS
- GEOS 4050 - Remote Sensing of the Environment
  
- MATH 1031 - Calculus I
- MATH 1032 - Calculus II
- MATH 2002 - Applied Linear Algebra
- MATH 2040 - Foundations of Mathematics
- MATH 2032 - Calculus III
- MATH 3001 - Differential Equations
- MATH 3007 - College Geometry
- MATH 4020 - Introduction to Biostatistics I
- MATH 4021 - Introduction to Biostatistics II
  
- PHYS 2001 - Descriptive Astronomy
- PHYS 2003 - General Physics I
- PHYS 2004 - General Physics II
- PHYS 2007 - University Physics I
- PHYS 2008 - University Physics II
- PHYS 2009 - Physics Laboratory I
- PHYS 2010 - Physics Laboratory II
- PHYS 3004 - Biomechanics
- PHYS 4034 - Adv Biomechanics

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	

Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

14. THE SCHOOL OF SCIENCES requests:

Presenter:	T. Sasek
Action:	<b>Change Biology, Concentration in Ecology and Evolution, B.S.</b>

**Current Degree Plan:**

## **Biology, Concentration in Ecology and Evolution, B.S.**

### **Additional Requirements for Concentration in Ecology and Evolution**

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#### **See also Biology, B.S. (260101)**

- [BIOL 1020 - Principles of Biology I](#) and
- [BIOL 1021 - Principles of Biology I Laboratory](#)
  
- [BIOL 1022 - Principles of Biology II](#) and
- [BIOL 1023 - Principles of Biology II Laboratory](#)
  
- [BIOL 2020 - Cell Biology](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3002 - Principles of Ecology](#)
- [BIOL 3005 - Genetics](#)
- [BIOL 3008 - Introduction to Evolutionary Biology](#)
- [BIOL 4099 - Senior Biology Seminar](#)
  
- 19 Additional hours in Biology with at least 9 hours of 3000- 4000-level and a minimum of 12 hours from Biology list electives B, C, and/or D ([Biology, B.S. \(260101\)](#))

#### **No more than 7 hours from:**

- 
- [BIOL 4103 - Anatomy/Physiology](#)
  - [BIOL 4104 - Bacteriology/Virology](#)
  - [BIOL 4105 - Botany](#)
  - [BIOL 4106 - Ecology](#)
  - [BIOL 4107 - Animal and Plant Science](#)
  - [BIOL 4108 - Animal and Plant Taxonomy](#)
  - [BIOL 4109 - Agrostology](#)
  - [BIOL 4096 - Cooperative Internships](#)
  - [BIOL 4097 - Undergraduate Research Participation](#)
  - [BIOL 4098 - Undergraduate Research Participation](#)

#### **Additional courses:**

- 
- [CHEM 1007 - General Chemistry I](#) and

- [CHEM 1009 - General Chemistry Laboratory I](#)
- [CHEM 1008 - General Chemistry II](#) and
- [CHEM 1010 - General Chemistry Laboratory II](#)
- [CHEM 2030 - Organic Chemistry I](#) and
- [CHEM 2031 - Organic Chemistry Laboratory I](#)
- Plus 4 Additional hours of any Math and Physical Science elective 2000-level or higher
- And 8 hours from the approved list of MPS electives

**Proposed Degree Plan:**

## **Biology, Concentration in Ecology and Evolution, B.S.**

### **Additional Requirements for Concentration in Ecology and Evolution**

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**See also [Biology, B.S. \(260101\)](#)**

- [BIOL 1020 - Principles of Biology I](#) and
- [BIOL 1021 - Principles of Biology I Laboratory](#)
- [BIOL 1022 - Principles of Biology II](#) and
- [BIOL 1023 - Principles of Biology II Laboratory](#)
- [BIOL 2020 - Cell Biology](#)
- [BIOL 2030 - Plant and Animal Form and Function](#)
- [BIOL 3002 - Principles of Ecology](#)
- [BIOL 3005 - Genetics](#)
- [BIOL 3008 - Introduction to Evolutionary Biology](#)
- [BIOL 4099 - Senior Biology Seminar](#)
- 19 Additional hours in Biology with at least 9 hours of 3000- 4000-level and a minimum of 12 hours from Biology list electives B, C, and/or D ([Biology, B.S. \(260101\)](#))

### **No more than 7 hours from:**

- 
- [BIOL 4103 - Anatomy/Physiology](#)
  - [BIOL 4104 - Bacteriology/Virology](#)
  - [BIOL 4105 - Botany](#)
  - [BIOL 4106 - Ecology](#)
  - [BIOL 4107 - Animal and Plant Science](#)
  - [BIOL 4108 - Animal and Plant Taxonomy](#)
  - [BIOL 4109 - Agrostology](#)
  - [BIOL 4096 - Cooperative Internships](#)
  - [BIOL 4097 - Undergraduate Research Participation](#)
  - [BIOL 4098 - Undergraduate Research Participation](#)

### **Additional courses:**

- 
- [CHEM 1007 - General Chemistry I](#) and

<ul style="list-style-type: none"> <li>• <a href="#">CHEM 1009 - General Chemistry Laboratory I</a></li> <li>• <a href="#">CHEM 1008 - General Chemistry II</a> and</li> <li>• <a href="#">CHEM 1010 - General Chemistry Laboratory II</a></li> <li>• <a href="#">CHEM 2030 - Organic Chemistry I</a> and</li> <li>• <a href="#">CHEM 2031 - Organic Chemistry Laboratory I</a></li> <li>• A total of 12 credit hours in Math and Physical Sciences electives must be taken from the approved list of atmospheric science, chemistry, geoscience, math, or physics courses. 4 of the credit hours must be at the 2000-level or higher.</li> </ul>	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

15. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Change title of HLST 4003</b>
<b>Current Title:</b>	
<b>Health Science Practicum II</b>	
<b>Proposed Title:</b>	
<b>Health Studies Practicum</b>	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	



16. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Add new course HLST 4010 (Health Law and Ethics)</b>
<b>Proposed Description:</b>	
<b>HLST 4010 – Health Law and Ethics</b>	
<b>3 cr.</b>	
U.S. legal structure and interplay between health law and ethics including legal, regulatory and ethical issues of consumers, practitioners, administrators and organizations.	
Prerequisite(s): Junior standing.	
Credit Hours:	3
Current Level:	U
Activity Type:	LEC
Maximum Hours to Be Earned:	3
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	Fall 2020
Last Term Offered:	
Offered Fixed/Variable:	Fixed
Variable Range:	
Abbreviated Course Title:	HEALTH LAW/ETHICS
UCC Decision:	<b>APPROVED</b>
Notes:	

17. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Close and remove HLST 3001 (Healthcare Ethics)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	Summer I 2020
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

18. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Close and remove HLST 4002 (Healthcare Law)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	Summer I 2020
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

19. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Change degree plan for Health Studies, Pre-Professional Health Studies Option, B.S.</b>
<b>Current Degree Plan:</b>	
<p><b>Health Studies, Pre-Professional Health Studies Option, B.S. (519999)</b></p> <p><b>Required for a major</b></p> <hr/> <ul style="list-style-type: none"> <li>• HLST 2002 - Healthcare Informatics</li> <li>• HLST 2003 - Healthcare Issues</li> <li>• <b>HLST 3001 - Healthcare Ethics</b></li> <li>• HLST 3002 - Social Epidemiology</li> <li>• HLST 3004 - Research Design for Healthcare</li> <li>• HLST 3005 - Professionalism in Healthcare</li>   <li>• <b>HLST 4003 - Health Science Practicum II or</b></li> <li>• <b>HLST 4002 - Healthcare Law</b></li>   <li>• <b>HLST 4005 - Principles of Leadership in Healthcare or</b></li> <li>• <b>HLST 4006 - Healthcare Administration</b></li>   <li>• HLST 4009 - Cultural Diversity</li> <li>• plus an additional <b>10</b> guided electives</li> </ul> <p><b>Total Hours 37</b></p> <hr/> <p><b>Note:</b></p>	

Health Studies students and academic advisors select from electives that strengthen career options in the health professions area.

## Freshman Year

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- ENGL 1001 - Composition I <sup>ce</sup>
- ENGL 1002 - Composition II <sup>ce</sup>
- MATH 1011 - College Algebra <sup>cm</sup>
- MATH 1012 - Trigonometry <sup>cm</sup>
- PSYC 2001 - Introduction to Psychology <sup>cs</sup>
- BIOL 1020 - Principles of Biology I <sup>cnp</sup>
- BIOL 1021 - Principles of Biology I Laboratory
- CHEM 1007 - General Chemistry I <sup>cnp</sup>
- CHEM 1009 - General Chemistry Laboratory I
- BIOL 1014 - Fundamentals of Anatomy and Physiology I <sup>cnp</sup>
- BIOL 1016 - Fundamentals of Anatomy and Physiology Laboratory I
- Core Fine Arts **3 cr.**
- Core Humanities **3 cr.**
- UNIV 1001 - University Seminar

**Total Hours 33**

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## Sophomore Year

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- BIOL 1015 - Fundamentals of Anatomy and Physiology II
- BIOL 1017 - Fundamentals of Anatomy and Physiology Laboratory II
- BIOL 2028 - Pathophysiology
- PHYS 2003 - General Physics I
- PHYS 2009 - Physics Laboratory I
- CHEM 1008 - General Chemistry II
- CHEM 1010 - General Chemistry Laboratory II
- PSYC 2078 - Developmental Psychology
  
- SOCL 1001 - Introduction to Sociology <sup>cs or</sup>
- HLST 2003 - Healthcare Issues
  
- HLST 2002 - Healthcare Informatics
- AHSC 2000 - Medical Terminology
- Core Humanities **3 cr.**

**Total Hours 33**

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## Junior Year

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- BIOL 2040 - Human Anatomy
- BIOL 2041 - Human Anatomy Laboratory
- BIOL 2014 - Introductory Microbiology
- BIOL 2015 - Introductory Microbiology Laboratory
- PSYC 4039 - Statistics
- HLST 3001 - Healthcare Ethics
- HLST 3002 - Social Epidemiology
- ENGL 3024 - Professional Writing and Communication
- Guided Electives **4 cr. \***
- HLST 3005 - Professionalism in Healthcare

- Core Humanities **3 cr.**

**Total Hours 30**

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## Senior Year

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- COMM 4026 - Health Communication
- PSYC 4001 - Abnormal Psychology
- HLST 3004 - Research Design for Healthcare <sup>uc</sup>
- HLST 4009 - Cultural Diversity
  
- HLST 4002 - Healthcare Law or
- HLST 4003 - Health Science Practicum II
  
- HLST 4005 - Principles of Leadership in Healthcare or
- HLST 4006 - Healthcare Administration
  
- Guided Electives **6 cr.** \*

**Total Hours 24**

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**Total hours for degree 120**

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## Notes:

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\*Guided Electives: select from courses that strengthen career options in Pre-Professional Health Studies.

- AACSB accreditation requirements limit the College of Business Administration credits which may be applied toward graduation in Health Studies Curricula to 30 semesters hours for the Bachelor's degree.

## Proposed Degree Plan:

# Health Studies, Pre-Professional Health Studies Option, B.S. (519999)

## Required for a major

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- HLST 2002 - Healthcare Informatics
- HLST 2003 - Healthcare Issues
- HLST 3002 - Social Epidemiology
- HLST 3004 - Research Design for Healthcare
- HLST 3005 - Professionalism in Healthcare
  
- HLST 4003 - Health Studies Practicum or
- HLST 4005 - Principles of Leadership in Healthcare or
- HLST 4006 - Healthcare Administration
  
- HLST 4010 - Health Law and Ethics
  
- HLST 4009 - Cultural Diversity
- plus an additional **3** guided electives

## Total Hours 30

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### Note:

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Health Studies students and academic advisors select from electives that strengthen career options in the health professions area.

## Freshman Year

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- ENGL 1001 - Composition I <sup>ce</sup>
- ENGL 1002 - Composition II <sup>ce</sup>
- MATH 1011 - College Algebra <sup>cm</sup>
- MATH 1012 - Trigonometry <sup>cm</sup>
- PSYC 2001 - Introduction to Psychology <sup>cs</sup>
- BIOL 1020 - Principles of Biology I <sup>cnp</sup>
- BIOL 1021 - Principles of Biology I Laboratory
- CHEM 1007 - General Chemistry I <sup>cnp</sup>
- CHEM 1009 - General Chemistry Laboratory I
- BIOL 1014 - Fundamentals of Anatomy and Physiology I <sup>cnp</sup>
- BIOL 1016 - Fundamentals of Anatomy and Physiology Laboratory I
- Core Fine Arts 3 cr.
- COMM 2001 - Public Speaking
- UNIV 1001 - University Seminar

## Total Hours 33

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## Sophomore Year

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- BIOL 1015 - Fundamentals of Anatomy and Physiology II
- BIOL 1017 - Fundamentals of Anatomy and Physiology Laboratory II
- BIOL 2028 - Pathophysiology
- PHYS 2003 - General Physics I
- PHYS 2009 - Physics Laboratory I
- CHEM 1008 - General Chemistry II
- CHEM 1010 - General Chemistry Laboratory II
- PSYC 2078 - Developmental Psychology
- BIOL 2020 - Cell Biology
  
- SOCL 1001 - Introduction to Sociology <sup>cs</sup> or
- HLST 2003 - Healthcare Issues
  
- HLST 2002 - Healthcare Informatics
- AHSC 2000 - Medical Terminology
- Core Humanities 3 cr.

## Total Hours 36

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## Junior Year

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- BIOL 2014 - Introductory Microbiology
- BIOL 2015 - Introductory Microbiology Laboratory
- BIOL 3005 - Genetics
- PSYC 4039 - Statistics

- PHYS 2004 – General Physics II
- PHYS 2010 – Physics Laboratory II
- HLST 3002 - Social Epidemiology
- ENGL 4044 – Writing in the Sciences
- HLST 3005 - Professionalism in Healthcare
- Core Humanities **3 cr.**

**Total Hours 26**

## Senior Year

- CHEM 2030 – Organic Chemistry I
- CHEM 2031 – Organic Chemistry Laboratory I
- PSYC 4001 - Abnormal Psychology
- HLST 3004 - Research Design for Healthcare <sup>uc</sup>
- HLST 4009 - Cultural Diversity
- HLST 4010 - Health Law and Ethics
  
- HLST 4003 - Health Studies Practicum or
- HLST 4005 – Principles of Leadership in Healthcare or
- HLST 4006 – Healthcare Administration
  
- HLST 4008 – Motor Development

- Guided Electives **3 cr.** \*

**Total Hours 25**

**Total hours for degree 120**

## Notes:

\*Guided Electives: select from courses that strengthen career options in Pre-Professional Health Studies.

- AACSB accreditation requirements limit the College of Business Administration credits which may be applied toward graduation in Health Studies Curricula to 30 semesters hours for the Bachelor's degree.

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

20. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Change catalog content on “School of Allied Health” page</b> ( <a href="http://catalog.ulm.edu/preview_entity.php?catoid=31&amp;ent_oid=1288#HEALTH_STUDIES_PROGRAM">http://catalog.ulm.edu/preview_entity.php?catoid=31&amp;ent_oid=1288#HEALTH_STUDIES_PROGRAM</a> ) under Health Studies Program topic.
<p><b>Current Catalog Content:</b></p> <p><b>General Information</b></p> <p>Students who seek admission to ULM must meet general admission requirements for admission to the University. Applications to ULM are submitted to the <a href="http://www.ulm.edu/prospectivestudents/">University Admissions Office - www.ulm.edu/prospectivestudents/</a>. Students entering the BSHS degree program with transfer credit must request a transcript review from the program to determine what coursework will be credited to the degree plan. A minimum of 31 hours of credit in the BSHS degree program must be successfully completed at ULM in order to receive the B.S. degree.</p> <p>Students majoring in the Health Studies program must meet these requirements to progress toward degree completion.</p> <ul style="list-style-type: none"> <li>• A grade of “C” or better is required for all HLST courses, core ENGL, core Math, core Natural Sciences, AHSC 2000, ENGL 3024, ECON 2001, FINA 3015, MGMT 3001 and MGMT 3005.</li> <li>• A minimum 2.75 cumulative grade-point average in all HLST courses is required for progression to HLST Practicum II in the student’s senior year.</li> <li>• A grade of “D” in HLST courses is non-progressive; the course must be repeated with a minimum grade of “C” before a student can progress to the next sequential course.</li> </ul> <p><b>Proposed Catalog Content:</b></p> <p><b>General Information</b></p> <p>Students who seek admission to ULM must meet general admission requirements for admission to the University. Applications to ULM are submitted to the <a href="http://www.ulm.edu/prospectivestudents/">University Admissions Office - www.ulm.edu/prospectivestudents/</a>. Students entering the BSHS degree program with transfer credit must request a transcript review from the program to determine what coursework will be credited to the degree plan. A minimum of 31 hours of credit in the BSHS degree program must be successfully completed at ULM in order to receive the B.S. degree.</p> <p>Students majoring in the Health Studies program must meet these requirements to progress toward degree completion.</p> <ul style="list-style-type: none"> <li>• A grade of “C” or better is required for all HLST courses, core ENGL, core Math, core Natural Sciences, and AHSC 2000.</li> <li>• A minimum 2.75 cumulative grade-point average in all HLST courses is required for progression to HLST Practicum II in the student’s senior year.</li> <li>• A grade of “D” in HLST courses is non-progressive; the course must be repeated with a minimum grade of “C” before a student can progress to the next sequential course.</li> </ul>	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020

First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

21. THE SCHOOL OF ALLIED HEALTH requests:

Presenter:	J. Dolecheck
Action:	<b>Change degree plan for Health Studies, Healthcare Management/Marketing, B.S. (519999) HSMM and Health Studies, Online Healthcare Management/Marketing, B.S. (519999) DLHS</b>

**Current Degree Plan:**

Required for a major

- [HLST 2002 - Healthcare Informatics](#)
- [HLST 2003 - Healthcare Issues](#)
- [HLST 3001 - Healthcare Ethics](#)
- [HLST 3002 - Social Epidemiology](#)
- [HLST 3004 - Research Design for Healthcare](#)
- [HLST 3005 - Professionalism in Healthcare](#)
- [HLST 4002 - Healthcare Law](#)
- [HLST 4003 - Health Science Practicum II](#)
- [HLST 4005 - Principles of Leadership in Healthcare](#)
- [HLST 4006 - Healthcare Administration](#)
- [HLST 4009 - Cultural Diversity](#)
- plus an additional **8** hours of guided electives

**Total Hours 41**

**Note:**

Health Studies students and academic advisors select from electives that strengthen career options in healthcare management or marketing area.

**Freshman Year**

- [ENGL 1001 - Composition I](#)<sup>ce</sup> and
- [ENGL 1002 - Composition II](#)<sup>ce</sup>
- [MATH 1011 - College Algebra](#)<sup>cm</sup>
- [PSYC 2001 - Introduction to Psychology](#)<sup>cs</sup>
- [BIOL 1014 - Fundamentals of Anatomy and Physiology I](#)<sup>cnp</sup>
- [BIOL 1015 - Fundamentals of Anatomy and Physiology II](#)<sup>cnp</sup>
- Core Physical Science **3 cr.**
- Core Fine Arts **3 cr.**
- **Core Humanities 3 cr.**
- [UNIV 1001 - University Seminar](#)



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## **Total Hours 27**

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### **Sophomore Year**

- [MATH 1016 - Elementary Statistics](#)
- [ACCT 2030 - Introductory Financial Accounting](#)
- [ECON 2001 - Macroeconomic Principles](#)
  
- [SOCL 1001 - Introduction to Sociology](#) <sup>cs</sup> or
- [HLST 2002 - Healthcare Informatics](#)
- [HLST 2003 - Healthcare Issues](#)
- [AHSC 2000 - Medical Terminology](#)
- [RMIN 2005 - Risk and Insurance](#)
- [BIOL 2028 - Pathophysiology](#)
- Core Humanities **6 cr.**

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## **Total Hours 33**

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### **Junior Year**

- [MGMT 3001 - Management Concepts and Practice](#)
- [MRKT 3001 - Fundamentals of Marketing](#)
- [BUSN 3005 - Business Communication](#)
- [HLST 3001 - Healthcare Ethics](#)
- [HLST 3002 - Social Epidemiology](#)
- [HLST 3004 - Research Design for Healthcare](#) <sup>uc</sup>
- [HLST 3005 - Professionalism in Healthcare](#)
- [MGMT 3005 - Organizational Behavior](#)
- [ACCT 2020 - Introductory Managerial Accounting](#)
- [FINA 3015 - Business Finance](#)
- Guided Electives **3 cr.** \*

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## **Total Hours 33**

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### **Senior Year**

- [COMM 4026 - Health Communication](#)
- **\*\*Business Elective 3000 or higher 3 cr.**
- [HLST 4002 - Healthcare Law](#)
- [HLST 4003 - Health Science Practicum II](#)
- [HLST 4005 - Principles of Leadership in Healthcare](#)
- [HLST 4006 - Healthcare Administration](#)
- [HLST 4009 - Cultural Diversity](#)
- [KINS 2001 - First Aid and CPR](#)
- Guided Electives **5 cr.** \*

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## **Total Hours 27**

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## **Total hours for degree 120**

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### **Note:**

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\*Guided Electives: select from courses that strengthen career options in Healthcare Management/Marketing.

\*\*Directed Business Elective: course will be assigned by the program.

- AACSB accreditation requirements limit the College of Business Administration credits which may be applied toward graduation in Health Studies Curricula to 30 semester hours for the Bachelor's degree.

## Proposed Catalog Content:

### Required for a major

- [HLST 2002 - Healthcare Informatics](#)
- [HLST 2003 - Healthcare Issues](#)
- [HLST 3002 - Social Epidemiology](#)
- [HLST 3004 - Research Design for Healthcare](#)
- [HLST 3005 - Professionalism in Healthcare](#)
- [HLST 4003 - Health Studies Practicum](#)
- [HLST 4005 - Principles of Leadership in Healthcare](#)
- [HLST 4006 - Healthcare Administration](#)
- [HLST 4009 - Cultural Diversity](#)
- [HLST 4010 - Health Law and Ethics](#)
- plus an additional 9 hours of guided electives

**Total Hours 39**

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### **Note:**

Health Studies students and academic advisors select from electives that strengthen career options in healthcare management or marketing area.

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### **Freshman Year**

- [ENGL 1001 - Composition I](#) <sup>ce</sup> and
- [ENGL 1002 - Composition II](#) <sup>ce</sup>
- [MATH 1011 - College Algebra](#) <sup>cm</sup>
- [PSYC 2001 - Introduction to Psychology](#) <sup>cs</sup>
- [BIOL 1014 - Fundamentals of Anatomy and Physiology I](#) <sup>cnp</sup>
- [BIOL 1015 - Fundamentals of Anatomy and Physiology II](#) <sup>cnp</sup>
- Core Physical Science **3 cr.**
- Core Fine Arts **3 cr.**
- [COMM 2001 - Public Speaking](#)
- [UNIV 1001 - University Seminar](#)

**Total Hours 27**

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### **Sophomore Year**

- [MATH 1016 - Elementary Statistics](#)
- [BUSN 1001 - Business and Society](#)
- [ECON 2001 - Macroeconomic Principles](#)
  
- [SOCL 1001 - Introduction to Sociology](#) <sup>cs</sup> or
- [HLST 2002 - Healthcare Informatics](#)
- [HLST 2003 - Healthcare Issues](#)
- [AHSC 2000 - Medical Terminology](#)
- [RMIN 2005 - Risk and Insurance](#)

- [BIOL 2028 - Pathophysiology](#)
- [CSCI 1070 - Computer Literacy](#)
- Core Humanities **6 cr.**

**Total Hours 36**

### Junior Year

- [GERO 2026 Perspectives on aging](#)
- [MRKT 3001 - Fundamentals of Marketing](#)
- [BUSN 3005 - Business Communication](#)
- [HLST 3002 - Social Epidemiology](#)
- [HLST 3004 - Research Design for Healthcare<sup>uc</sup>](#)
- [HLST 3005 - Professionalism in Healthcare](#)
- [MGMT 3005 - Organizational Behavior](#)
- [ACCT 2020 - Introductory Managerial Accounting](#)
- [MRKT 4012 - Digital Marketing](#)
- Guided Electives **6 cr.** \*

**Total Hours 33**

### Senior Year

- MGMT 3009 - Operations Management
- RMIN 3011 - Health and Social Insurance
- HLST 4010 - Health Law and Ethics
- [HLST 4003 - Health Science Practicum II](#)
- [HLST 4005 - Principles of Leadership in Healthcare](#)
- [HLST 4006 - Healthcare Administration](#)
- [HLST 4009 - Cultural Diversity](#)
- Guided Electives **3 cr.** \*

**Total Hours 24**

**Total hours for degree 120**

### Note:

\*Guided Electives: select from courses that strengthen career options in Healthcare Management/Marketing.

\*\*Directed Business Elective: course will be assigned by the program.

- AACSB accreditation requirements limit the College of Business Administration credits which may be applied toward graduation in Health Studies Curricula to 30 semester hours for the Bachelor's degree.

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	

Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	Course requirements are the same for both campus and online versions of degree plans so changes should occur on both program pages.

22. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 4006 (Theory of Functions of a Complex Variable)</b>
<b>Current Description:</b>	
<b>MATH 4006 - Theory of Functions of a Complex Variable</b>	
<b>3 cr.</b>	
Real and complex numbers, differentiation and integration of functions of a complex variable, mapping by elementary functions, transformations, infinite series, and theory of residues and poles.	
Prerequisite(s): <b>MATH 2032.</b>	
<b>Proposed Description:</b>	
<b>MATH 4006 - Theory of Functions of a Complex Variable</b>	
<b>3 cr.</b>	
Real and complex numbers, differentiation and integration of functions of a complex variable, mapping by elementary functions, transformations, infinite series, and theory of residues and poles.	
Prerequisite(s): <b>MATH 1032.</b>	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	

Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

23. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 4007 (History of Mathematics)</b>

**Current Description:**

**MATH 4007 - History of Mathematics**

3 cr.

Selected topics on the development of mathematics as a human endeavor; numeration systems; growth of algebra, trigonometry, geometry, and the calculus; contributions from various cultures; selected biographies of mathematicians.

Prerequisite(s): A grade of "C" or better in **MATH 2040** and either **MATH 3080** or **MATH 3086**.

**Proposed Description:**

**MATH 4007 - History of Mathematics**

3 cr.

Selected topics on the development of mathematics as a human endeavor; numeration systems; growth of algebra, trigonometry, geometry, and the calculus; contributions from various cultures; selected biographies of mathematicians.

Prerequisite(s): A grade of "C" or better in **MATH 3040**.

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

24. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 4009 (Cryptology)</b>
<b>Current Description:</b>	
<b>MATH 4009 - Cryptology</b>	
<b>3 cr.</b>	
Introduction to modern applications of mathematics. Private key ciphers, including shift, affine and vigenere; attacks on these ciphers. Modern public key ciphers including RSA and Knapsack.	
Prerequisite(s): A grade of "C" or better in <a href="#">MATH 2040</a> or permission of the instructor.	
<b>Proposed Description:</b>	
<b>MATH 4009 - Cryptology</b>	
<b>3 cr.</b>	
Introduction to modern applications of mathematics. Private key ciphers, including shift, affine and vigenere; attacks on these ciphers. Modern public key ciphers including RSA and Knapsack.	
Prerequisite(s): A grade of "C" or better in <a href="#">MATH 2040</a> or <a href="#">CSCI 3026</a> or permission of the instructor.	
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

25. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 4013 (Mathematics of Finance I)</b>
<b>Current Description:</b>	
<b>MATH 4013 - Mathematics of Finance I</b>	

**3 cr.**

This course is designed to introduce the student to the fundamental concepts of financial mathematics, and how those concepts are applied with regard to time value of money, annuities/cash flows with payments that are not contingent, loans and bonds.

Prerequisite(s): Credit or registration in **ECON 2001**, credit or registration in **MATH 1016** or **MATH 3003**

**Proposed Description:**

**MATH 4013 - Mathematics of Finance I**

**3 cr.**

This course is designed to introduce the student to the fundamental concepts of financial mathematics, and how those concepts are applied with regard to time value of money, annuities/cash flows with payments that are not contingent, loans and bonds.

Prerequisite(s): Credit or registration in **MATH 1031**

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

26. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 3086 (Modern Algebra)</b>
<b>Current Description:</b>	
<b>MATH 3086 - Modern Algebra</b>	
<b>3 cr.</b>	
Axioms and the nature of proof, groups, rings, integral domains, fields, homomorphisms and isomorphisms.	
Prerequisite(s): A grade of "C" or better in <b>MATH 2002</b> and <b>MATH 2040</b> .	
<b>Proposed Description:</b>	

## MATH 3086 - Modern Algebra

**3 cr.**

Axioms and the nature of proof, groups, rings, integral domains, fields, homomorphisms and isomorphisms.

Prerequisite(s): A grade of "C" or better in [MATH 2002](#) and [MATH 3040](#).

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

27. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Change prerequisite for MATH 3080 (Real Analysis)</b>
<b>Current Description:</b>	
<b>MATH 3080 - Real Analysis</b>	
<b>3 cr.</b>	
Sequences and series of real numbers and their convergence; continuity, differentiation, and integration of real valued functions of one real variable.	
Prerequisite(s): A grade of "C" or better in <a href="#">MATH 1032</a> , <a href="#">MATH 2040</a> .	
<b>Proposed Description:</b>	
<b>MATH 3080 - Real Analysis</b>	
<b>3 cr.</b>	
Sequences and series of real numbers and their convergence; continuity, differentiation, and integration of real valued functions of one real variable.	
Prerequisite(s): A grade of "C" or better in <a href="#">MATH 1032</a> , <a href="#">MATH 3040</a> .	
Credit Hours:	
Current Level:	U



Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

28. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove Math 4001 (Differential Equations)</b>
Credit Hours:	
Current Level:	U/G
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

29. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove Math 4011 (Fundamentals of Middle School Mathematics I)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	

Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

30. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove Math 4012 (Fundamentals of Middle School Mathematics II)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

31. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove Math 4031 (Fundamentals of High School Mathematics I)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

32. THE SCHOOL OF SCIENCE requests:

Presenter:	A. Case Hanks
Action:	<b>Close and remove Math 4032 (Fundamentals of High School</b>

	<b>Mathematics II)</b>
Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	
Last Term Offered:	
Offered Fixed/Variable:	
Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED</b>
Notes:	

33. THE SCHOOL OF VISUAL AND PERFORMING ARTS requests:

Presenter:	D. Long
Action:	<b>Create Bachelor of Arts in Music (BA)</b>
<b>Proposed degree plan:</b>	
<h2 style="color: #8B4513;">Music, B.A. (50XXXX)</h2>	
<p>The primary purpose of the proposed Bachelor of Arts in Music (BA) is development of knowledgeable, skillful, and creative individuals who emerge from the college experience with a well-rounded education and prepared for productive futures. This liberal arts degree aims to serve students with an interest in having music as a valuable part of their education and career, but who do not intend to become professional musicians or music teachers. To facilitate this goal, candidates for the BA will develop knowledge in at least one additional area, hereafter referred to as a concentration. The concentration is different from a minor in that the concentration requires more credit hours and can be specifically designed to address what the student wishes to do with the degree upon completion. The ULM BA differs from a professional Bachelor of Music program (BM) and other BA programs in purpose, design, and flexibility. CIP Code 50.0999 is appropriate because the proposed BA degree could contain elements of 50.0901 through 50.0916 depending on the concentration design. However, the flexibility of this degree could contain elements of numerous non-music CIP Codes including 09, 10, 22, 26, and 51.</p>	
<p>As a result of studying the curriculum for this degree, the completer will:</p>	
<ul style="list-style-type: none"> <li>• Demonstrate knowledge in areas fundamental to the art and practice of music including music theory, music history, and performance technique on their chosen instrument or voice.</li> <li>• Demonstrate fundamental understanding in secondary areas related to the art and practice of music including music technology, ensemble performance, and an area of particular interest to the student as highlighted by a senior capstone project.</li> <li>• Demonstrate knowledge in a secondary area constructive of what the student wishes to do with the degree upon completion.</li> </ul>	
<p>This will be a Liberal Arts degree, described by the National Association of Schools of Music (NASM) as focused on music in the context of a broad program of general studies. The ULM degree will be comprised of 120 credit hours delineated as follows:</p>	

- 39 hours - General Education Core Curriculum; English (6 cr), Humanities (9 cr), Mathematics 6 cr), Social/Behavioral Sciences ( 6cr), Natural Sciences (9 cr), Fine Arts (3 cr).
- 36 hours - Music Core Curriculum; Theory 1 & Aural Skills 1 (4 cr), Theory 2 & Aural Skills 2 (4 cr), Theory 3 & Aural Skills 3 (4 cr), Theory 4 & Aural Skills 4 (4 cr), Music History Survey 1 or 2 (3 cr), Piano 1 & 2 (2 cr), Music Technology (2 cr), Major Applied (12 cr), Senior Capstone (1 cr).
- 30 hours – Concentration; The concentration will be designed, under close collaboration with the student adviser, to address what the student plans on doing with the degree upon completion. The concentration can consist of additional study in an area of music such as musical theater or church music. However, concentrations can incorporate courses in business, health studies (including pre-medicine or pre-creative arts therapy), kinesiology, pre-law studies, international studies, communication, computer information systems, professional writing, sociology, world languages, or almost any other program available at ULM.
- 15 hours – Free Electives.

The following is a National Association of Schools of Music Curricular Table showing a percentage distribution of components within the Bachelor of Arts in Music.

Musicianship	General Studies	Concentration	Free Electives	Total Number of Units
36	39	30	15	120 Total Units
30 %	33 %	25 %	12 %	Total 100 %

Other program requirements:

- An audition on the student’s primary instrument or voice is required for admission to the program. Prospective students are also required to complete a Music Theory Placement Exam and Piano Placement Exam if they have developed some skill level in that area.
- BA students are required to perform in a major ensemble, related to their major instrument or voice, each semester of attendance. Ensemble hours may be counted as free electives with approval from the adviser.
- BA students are required to enroll in the Student Recital course (MUSC 1000/2000/3000/4000) each semester of attendance. This is a NASM accreditation requirement.
- In close consultation with the adviser, the BA student will develop an Individual Study Plan (ISP) that maps and tracks progress from matriculation to completion. An ISP is different from the degree check sheets widely used on the ULM campus in that it is an individual plan for one single student rather than a degree check sheet that applies to many students within a curriculum.
- In their final semester, BA students are required to complete a capstone project constructive of their intended career path. The capstone could be a recital, research project, or other scholarly activity as approved by the adviser. The senior project could also be an internship with a local music organization such as the Monroe Symphony Orchestra, local recording studio, music store, or at the blues education center in Bastrop being planned by Dr. Mable John.

The concentration declaration is critical to the program in that it will allow the student to develop deeper knowledge than a minor in a secondary area that will enhance employability upon completion. The following are examples of concentrations:

1. **Business Operations and Analysis Skills**
  - QMDS2010 (3 cr) - Statistics and Quality Control
  - ACCT2020 (3 cr) - Intro Managerial Accounting
  - ACCT2030 (3 cr) - Intro Financial Accounting

- MGMT3001 (3 cr) - Management Concepts and Practice
- MGMT3005 (3 cr) - Organizational Behavior
- MRKT3001(3 cr) - Fundamentals of Marketing
- MRKT4012 (3 cr) - Digital Marketing
- FINA3015 (3 cr) - Business Finance
- CINS2020 (3 cr) – Intro to Business Programming
- CINS3006 (3 cr) – Data Base Application Dev.

**2. Pre-Medicine (see ISP for Pre-Medical studies below for specific information on this concentration)**

- BIOL 1021 (1 cr) - Principles of Biology I Laboratory
- BIOL 2015 (1 cr)- Introductory Microbiology Laboratory
- CHEM 1007 (3 cr) - General Chemistry I
- CHEM 1009 (1 cr) - General Chemistry Laboratory I
- CHEM 1008 (3 cr) - General Chemistry II
- CHEM 1010 (1 cr)- General Chemistry Laboratory II
- CHEM 2030 (3 cr) - Organic Chemistry I
- CHEM 2031 (1 cr)- Organic Chemistry Laboratory I
- CHEM 2032 (3 cr) - Organic Chemistry II
- CHEM 2033 (1 cr) - Organic Chemistry Laboratory II
- PHYS 2009 (1 cr) - Physics Laboratory I
- PHYS 2004 (3 cr) - General Physics II
- PHYS 2010 (1 cr) - Physics Laboratory II

In the Pre-Medicine concentration, the following additional courses are strongly recommended:

- CHEM 3050 (3 cr) - Biochemistry I
- CHEM 3051 (1 cr) - Biochemistry Laboratory I
- CHEM 3052 (3 cr) - Biochemistry II

Then 9 cr of the following:

- BIOL 3016 (4 cr) - Comparative Anatomy
- BIOL 3010 (3 cr) - Human Physiology
- BIOL 3013 (1 cr) - Human Physiology Laboratory
- BIOL 3005 (3 cr) - Genetics
- BIOL 3006 (1 cr) - Genetics Laboratory
- BIOL 4022 (4 cr) - Histology

**3. Communication**

- COMM 1018 (3 cr) - Interpersonal Communication
- COMM 2010 (3 cr) - Writing for Professional Communicators
- COMM 2020 (3 cr) - Visual Literacy
- COMM 4000 (3 cr) - Communication Ethics
- COMM 4050 (3 cr) - Communication Theory
- Additional 15 hours of COMM at the 3000 or 4000 level

**4. Journalism**

- COMM 3000 (3 cr) - News Reporting & Writing
- COMM 4009 (3 cr) - Feature & Editorial Writing
- COMM 4012 (3 cr) - Scriptwriting
- COMM 3062 (3 cr) - Sports Journalism
- COMM 4030 (3 cr) - Investigative Journalism
- COMM 4033 (3 cr) - Electronic News Gathering
- Additional 12 cr in COMM electives at 3000 or 4000 level

**5. Church Music**

- MUSC - Music in Worship (3 cr)\*

- MUSC 3011/3012 - Voice Class (2 cr)
  - MUSC - Songwriting for Worship (2 cr)\*
  - MUSC 2073- Conducting I (2 cr)
  - MUSC 4078/79 – Conducting II (2 cr)
  - MUSC 4098 - Choral Methods and Literature (3 cr)
  - MUSC 4073 - Instrumentation and Arranging (2 cr)
  - Additional 12 cr in MUSC courses at 3000 or 4000 level
- \* Indicates course under development

Additional concentrations can be designed in almost any program at ULM.

### Freshman Year

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~~Core Classes 15 cr~~

Core English Composition 6 cr.

Core Mathematics 6 cr.

Core Humanities 3 cr.

MUSC 1002 – Music Theory I

MUSC 1003 – Aural Skills I

MUSC 1004 – Music Theory II

MUSC 1005 – Aural Skills II

Music, Major Performance 4 cr

MUSC 1015 – Piano Class

MUSC 1016 – Piano Class

MUSC 1000 - Recital Hour

UNIV 1001 – University Seminar

Elective 1 cr

Total Hours 30 (31)

### Sophomore Year

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~~Core Classes 15 cr~~

Core Social Science 6 cr.

Core Humanities 6 cr.

Core Natural/Physical Science 3 cr.

MUSC 2002 – Music Theory III

MUSC 2003 – Aural Skills III

MUSC 2004 – Music Theory IV

MUSC 2005 – Aural Skills IV

MUSC 2000 - Recital Hour

Music, Major Performance 4 cr

Electives 2 cr

Total Hours 29

### Junior Year

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~~Core Classes 6 cr~~

Core Natural/Physical Science 6 cr.

MUSC 1095 – Music Technology

Music, Major Performance 4 cr

**MUSC 3000 - Recital Hour**

Concentration 12 cr

Electives 5 cr

Total Hours ~~29~~ **30**

Senior Year

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Fine Arts Core 3 cr (Music History Survey I)<sup>cfa</sup>

MUSC 4092 – Music History Survey II

**MUSC 4000 - Recital Hour**

Music Capstone 1 cr

Concentration 18 cr

Electives 6

Total Hours 31

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Total Hours for degree 120

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Note:

\* Music majors should see Core Curriculum (College of Arts, Education, and Sciences) requirements.

\*\* Bachelor of Arts majors with a Concentration in Business are not allowed to accumulate more than 27 credits in business coursework (BUSN, BLAW, CINS, CSCI, FINA, MGMT, MRKT, RMIN).

\*\*\* All MUSC coursework must be completed with a grade of “C” or better.

\*\*\*\* Bachelor of Arts in Music majors with a Concentration in Pre-Medical Studies must acknowledge that the curriculum encumbers the 30 credit concentration and 15 credit free electives.

All music majors must successfully perform in a major ensemble each semester of attendance.

All music majors must enroll in Recital Class (MUSC 1000/2000/3000/4000) each semester of attendance and pass the class with a grade of “C” or better.

Credit Hours:	
Current Level:	U
Activity Type:	
Maximum Hours to Be Earned:	
Cross-Listed:	
Change Effective:	Summer 2020
First Term Offered:	Fall 2020
Last Term Offered:	
Offered Fixed/Variable:	

Variable Range:	
Abbreviated Course Title:	
UCC Decision:	<b>APPROVED (TABLED)</b>
Notes:	Approval contingent on approval of Board or Regents and assignment of final CIP code. Proposed CIP code 50.0999.

Item not approved by VPAA awaiting review from BOR, UCC will reevaluate after recommendation of BOR 1/30/20





Dr. Alberto Ruiz

Will not approve  
proposal on page 43.

This has not been  
approved by Board  
of Regents. It will  
be reviewed at  
Feb. meeting

A handwritten signature in black ink, appearing to read "Alto Ruiz", is written over the typed name and title.

Vice President for Academic Affairs  
University of Louisiana Monroe

318.342.1025

ruiz@ulm.edu