

## Major in Biology

Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment. Students are responsible for meeting all course prerequisites.

\*See the University Core requirements section of this catalog for approved list of course options.

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### BA with a Major in Biology

#### FRESHMAN YEAR

FALL	HOURS
BIOL 1710, Principles of Biology I, or BIOL 1711, Honors Principles of Biology I	3
BIOL 1730, Principles of Biology I Laboratory	1
CHEM 1410, General Chemistry I, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing*	3
MATH 1710, Calculus I	4
Total	15

#### SOPHOMORE YEAR

FALL	HOURS
BIOL 2040, Biology of Microorganisms	4
CHEM 2370, Organic Chemistry	3
CHEM 3210, Organic Chemistry Laboratory	1
LANG 2040, Foreign Language (intermediate, see major requirements)**	3
PSCI 1040, American Government*	3
Humanities*	3
Total	17

#### JUNIOR YEAR

FALL	HOURS
BIOL (advanced, with laboratory)	4
HIST 2610, United States History to 1865*	3
PHYS 1410, General Physics I	3
PHYS 1430, General Physics I Laboratory	1
CHEM (advanced, see major requirements)	4
Elective (advanced)	2
Total	17

#### SENIOR YEAR

FALL	HOURS
BIOL (advanced, with laboratory)	4
BIOL (advanced)	3
Cross-cultural, Diversity and Global Studies*	3
Literature**	3
Elective (advanced)	3
Total	16

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II	3
BIOL 1740, Principles of Biology II Laboratory I	1
CHEM 1420, General Chemistry II, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 1320, College Writing II*	3
Elective	1
Social and Behavioral Science*	3
Total	15

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 2140, Principles of Ecology	3
CHEM 2380, Organic Chemistry	3
CHEM 3220, Organic Chemistry Laboratory	1
LANG 2050, Foreign Language (intermediate, see major requirements)**	3
PSCI 1050, American Government II*	3
Communication**	3
Total	16

#### JUNIOR YEAR

SPRING	HOURS
BIOL (advanced, with laboratory)	4
HIST 2620, United States History since 1865*	3
PHYS 1420, General Physics II	3
PHYS 1440, General Physics II Laboratory	1
Elective (advanced)	3
Visual and Performing Arts*	3
Total	17

#### SENIOR YEAR

SPRING	HOURS
BIOL (advanced, with laboratory)	4
Elective (advanced)	3
Elective (advanced)	3
Elective (advanced)	3
Wellness*	3
Total	16

*Actual degree plans may vary depending on availability of courses in a given semester.*

*Some courses may require prerequisites not listed. Students may wish to use opportunities for electives to complete a minor of their choice or secondary education courses for teacher certification.*

## BS in Biology

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### BS in Biology

#### FRESHMAN YEAR

FALL	HOURS
BIOL 1710, Principles of Biology I, or BIOL 1711, Honors Principles of Biology I	3
BIOL 1730, Principles of Biology I Laboratory	1
CHEM 1410, General Chemistry I, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing I*	3
MATH 1710, Calculus I	4
Total	15

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II	3
BIOL 1740, Principles of Biology II Laboratory	1
CHEM 1420, General Chemistry II, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 1320, College Writing II* Social and Behavioral Science*	3
Total	14

#### SOPHOMORE YEAR

FALL	HOURS
BIOL 2040, Biology of Microorganisms	4
CHEM 2370, Organic Chemistry	3
CHEM 3210, Organic Chemistry Laboratory	1
LANG 2040, Foreign Language (intermediate, see major requirements)**	3
PSCI 1040, American Government*	3
Humanities*	3
Total	17

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 2140, Principles of Ecology	3
CHEM 2380, Organic Chemistry	3
CHEM 3220, Organic Chemistry Laboratory	1
LANG 2050, Foreign Language (intermediate, see major requirements)**	3
PSCI 1050, American Government II*	3
Communication**	3
Total	16

#### JUNIOR YEAR

FALL	HOURS
BIOL 3510, Cell Biology	3
BIOL 3520, Cell Biology Laboratory	1
HIST 2610, United States History to 1865*	3
PHYS 1410, General Physics I	3
PHYS 1430, General Physics I Laboratory	1
CHEM (advanced, see major requirements)	4
Elective (advanced)	2
Total	17

#### JUNIOR YEAR

SPRING	HOURS
BIOL 3450, Genetics	4
BIOL (advanced, with laboratory)	4
HIST 2620, United States History Since 1865*	3
PHYS 1420, General Physics II	3
PHYS 1440, General Physics Laboratory II	1
Visual and Performing Arts*	3
Total	18

#### SENIOR YEAR

FALL	HOURS
BIOL (advanced, with laboratory)	4
BIOL (advanced)	4
Cross-cultural, Diversity, and Global Studies*	3
Literature**	3
Elective (advanced)	3
Total	17

#### SENIOR YEAR

SPRING	HOURS
BIOL (advanced, with laboratory)	4
BIOL (advanced)	4
Elective	3
Elective (advanced)	3
Wellness*	3
Total	17

*Actual degree plans may vary depending on availability of courses in a given semester. Some courses may require prerequisites not listed. Students may wish to use opportunities for electives to complete a minor of their choice or secondary education courses for teacher certification.*

## Major in Cytotechnology

Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment. Students are responsible for meeting all course prerequisites.

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### BS with a Major in Cytotechnology

#### FRESHMAN YEAR

FALL	HOURS
BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II	3
BIOL 1740, Principles of Biology II Laboratory	1
CHEM 1410, General Chemistry I, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing I*	3
MATH 1680, Elementary Probability and Statistics	3
Wellness*	.3
<b>Total</b>	<b>17</b>

#### SOPHOMORE YEAR

FALL	HOURS
BIOL 2360, Applied Human Anatomy	4
PSCI 1040, American Government*	3
Elective	3
Humanities*	3
Visual and Performing Arts*	.3
<b>Total</b>	<b>16</b>

#### JUNIOR YEAR

FALL	HOURS
BIOL 3350, Heredity	3
BIOL 4090, Parasitology	4
HIST 2610, United States History to 1865*	3
ECON 4180, The Economics of Health Care	3
Cross-cultural, Diversity and Global Studies*	.3
<b>Total</b>	<b>16</b>

#### SENIOR YEAR

FALL	HOURS
Before attending at a clinical school of cytotechnology approved by the American Medical Association in collaboration with the American Society of Cytotechnology, students must apply and be accepted by the school. A minimum of 39 hours of professional cytotechnology courses during approximately 12 months is required to complete the senior year of this program. Successful completion of the first three years does not guarantee admission into a clinical school. Contact the Cytotechnology Program Director.	
<b>Total</b>	<b>39</b>

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 2040, Biology of Microorganisms	4
CHEM 1420, General Chemistry II, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 2700, Technical Writing	3
PSYC 1630, General Psychology I	.3
<b>Total</b>	<b>14</b>

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 2370, Applied Human Physiology	4
PSCI 1050, American Government*	3
Communication**	3
Elective	2
Literature**	.3
<b>Total</b>	<b>15</b>

#### JUNIOR YEAR

SPRING	HOURS
BIOL 3600, Histological and Biomedical Microtechniques	4
CHEM 3600, Organic Chemistry	4
EDSE 4840, Instructional Strategies and Classroom Management	3
HIST 2620, United States History Since 1865*	3
MGMT 3720, Organizational Behavior	.3
<b>Total</b>	<b>17</b>

#### SENIOR YEAR

SPRING	HOURS
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Some courses may require prerequisites not listed.*

## BS in Medical Technology

Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment. Students are responsible for meeting all course prerequisites.

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### BS in Medical Technology

#### FRESHMAN YEAR

FALL	HOURS
BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II	3
BIOL 1740, Principles of Biology II Laboratory	1
CHEM 1410, General Chemistry I, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing I*	3
MATH 1680, Elementary Probability and Statistics	3
Wellness*	<u>3</u>
<b>Total</b>	<b>17</b>

#### SOPHOMORE YEAR

FALL	HOURS
BIOL (advanced, see major requirements)	4
CHEM 3600, Organic Chemistry	4
PSCI 1040, American Government*	3
Humanities*	3
Visual and Performing Arts*	<u>3</u>
<b>Total</b>	<b>17</b>

#### JUNIOR YEAR

FALL	HOURS
BIOL 3800, Animal Physiology	3
BIOL 3810, Animal Physiology Laboratory	1
BIOL (advanced, see major requirements)	4
BIOL (advanced, see major requirements)	4
HIST 2610, United States History to 1865*	3
Elective	<u>2</u>
<b>Total</b>	<b>17</b>

#### SENIOR YEAR

FALL	HOURS
<b>Total</b>	<b>39</b>

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 2040, Biology of Microorganisms	4
CHEM 1420, General Chemistry II, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 2700, Technical Writing Social and Behavioral Science*	<u>3</u>
<b>Total</b>	<b>14</b>

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 3380, Medical Bacteriology	4
BIOC 3620, Elementary Biochemistry	4
PSCI 1050, American Government*	3
Communication**	3
Literature**	<u>3</u>
<b>Total</b>	<b>17</b>

#### JUNIOR YEAR

SPRING	HOURS
BIOL 4200, Immunology	4
CHEM 3610, Quantitative Techniques	4
HIST 2620, United States History Since 1865*	3
MGMT 3720, Organizational Behavior	3
Cross-cultural, Diversity and Global Studies	<u>3</u>
<b>Total</b>	<b>17</b>

#### SENIOR YEAR

SPRING	HOURS
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Before attendance at a school of clinical laboratory science (medical technology) approved by the American Medical Association, student must apply and be accepted by the school. A minimum of 39 hours of professional medical technology courses during approximately 12 months is required to complete the senior year of this program. Successful completion of the first three years does not guarantee admission into a school of clinical laboratory science. Contact the Medical Technology Program Director.

**Total** **39**

*Actual degree plans may vary depending on availability of courses in a given semester.  
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## Major in Biochemistry

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### BA with a Major in Biochemistry

#### FRESHMAN YEAR

FALL	HOURS
BIOC 2000, Vistas in Biochemistry	1
BIOL 1710, Principles of Biology I, or BIOL 1711, Honors Principles of Biology I	3
BIOL 1730, Principles of Biology I Laboratory	1
CHEM 1410, General Chemistry, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing I*	3
MATH 1650 Pre-Calculus	<u>5</u>
Total	17

#### SOPHOMORE YEAR

FALL	HOURS
BIOC 2000, Vistas in Biochemistry	1
CHEM 2370, Organic Chemistry	3
CHEM 3210, Organic Chemistry Laboratory	1
LANG 2040, Foreign Language (intermediate, see major requirements)**	3
PHYS 1410, General Physics I	3
PHYS 1430, General Physics Laboratory I	1
Humanities*	<u>3</u>
Total	15

#### JUNIOR YEAR

FALL	HOURS
BIOC 3620, Elementary Biochemistry	4
CHEM 3450, Quantitative Analysis	4
HIST 2610, United States History to 1865* Communication**	3
Elective (advanced)	<u>2</u>
Total	16

#### SENIOR YEAR

FALL	HOURS
BIOL (advanced)	4
PSCI 1040, American Government*	3
Cross-cultural, Diversity and Global Studies*	3
Elective (advanced)	3
Literature**	<u>3</u>
Total	16

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 2040, Biology of Microorganisms; or BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II, and BIOL 1740, Principles of Biology II Laboratory	4
CHEM 1420, General Chemistry II, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 1320, College Writing II**	3
MATH 1710, Calculus I	<u>4</u>
Total	15

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 3510, Cell Biology	3
BIOL 3520, Cell Biology Laboratory	1
CHEM 2380, Organic Chemistry	3
CHEM 3220, Organic Chemistry Laboratory	1
LANG 2050*, Foreign Language (intermediate, see major requirements)**	3
PHYS 1420, General Physics II	3
PHYS 1440, General Physics II Laboratory	<u>1</u>
Total	15

#### JUNIOR YEAR

SPRING	HOURS
BIOC 4570, Biochemistry and Molecular Biology of the Gene	3
BIOC 4580, Biochemistry and Molecular Biology of the Gene Laboratory	2
HIST 2620, United States History Since 1865*	3
Elective (advanced)	3
Social and Behavioral Science*	3
Visual and Performing Arts*	<u>3</u>
Total	17

#### SENIOR YEAR

SPRING	HOURS
BIOL (advanced)	4
CHEM 3530, Physical Chemistry for Life Science	4
PSCI 1050, American Government II*	3
Elective (advanced)	3
Wellness*	<u>3</u>
Total	17

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## BS in Biochemistry

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### BS in Biochemistry

#### FRESHMAN YEAR

FALL	HOURS
BIOC, 2000, Vistas in Biochemistry	1
BIOL 1710, Principles of Biology I, or BIOL 1711, Honors Principles of Biology I	3
BIOL 1730, Principles of Biology I Laboratory	1
CHEM 1410, General Chemistry I, or CHEM 1413, Honors General Chemistry	3
CHEM 1430, General Chemistry Laboratory	1
ENGL 1310, College Writing I*	3
MATH 1710, Calculus I	4
Total	16

#### SOPHOMORE YEAR

FALL	HOURS
BIOC 2000, Vistas in Biochemistry	1
CHEM 2370, Organic Chemistry	3
CHEM 3210, Organic Chemistry Laboratory	1
LANG 2040, Foreign Language (intermediate, see major requirements)**	3
PHYS 1410, General Physics I, or PHYS 1710, Mechanics	3
PHYS 1430, General Physics I Laboratory, or PHYS 1730, Laboratory in Mechanics	1
Communication**	3
Humanities*	3
Total	18

#### JUNIOR YEAR

FALL	HOURS
BIOC 4540, Biochemistry I	3
BIOC 4560, Biochemistry I Laboratory	2
BIOL 3510, Cell Biology	3
BIOL 3520, Cell Biology Laboratory	1
CHEM 3450, Quantitative Analysis	4
HIST 2610, United States History to 1865*	3
Total	16

#### SENIOR YEAR

FALL	HOURS
CHEM 3510, Physical Chemistry I	3
PSCI 1040, American Government*	3
BIOL (advanced)	4
Cross-cultural, Diversity and Global Studies*	3
Elective	3
Total	16

#### FRESHMAN YEAR

SPRING	HOURS
BIOL 2040, Biology of Microorganisms; or BIOL 1720, Principles of Biology II, or BIOL 1722, Honors Principles of Biology II, and BIOL 1740, Principles of Biology II Laboratory	4
CHEM 1420, General Chemistry, or CHEM 1423, Honors General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ENGL 1320, College Writing II*	3
MATH 1720, Calculus II	3
Elective	2
Total	16

#### SOPHOMORE YEAR

SPRING	HOURS
BIOL 3450, Genetics	4
CHEM 2380, Organic Chemistry	3
CHEM 3220, Organic Chemistry Laboratory	1
LANG 2050, Foreign Language (intermediate, see major requirements)**	3
PHYS 1420, General Physics II, or PHYS 2220, Electricity and Magnetism	3
PHYS 1440, General Physics II Laboratory, or PHYS 2240, Laboratory in Wave Motion, Electricity, Magnetism and Optics	1
Literature**	3
Total	18

#### JUNIOR YEAR

SPRING	HOURS
BIOC 4550, Biochemistry II	3
BIOC 4570, Biochemistry and Molecular Biology of the Gene	3
BIOC 4580, Biochemistry and Molecular Biology of the Gene Laboratory	2
HIST 2620, United States History Since 1865*	3
Visual and Performing Arts*	3
Wellness*	3
Total	17

#### SENIOR YEAR

SPRING	HOURS
CHEM 3520, Physical Chemistry II	3
PSCI 1050, American Government II*	3
Division of Science Course (advanced)	3
Elective	4
Elective (advanced)	2
Social and Behavioral Science*	3
Total	18

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