

**ASSOCIATE OF ARTS/SCIENCE****GUIDED PATHWAY: BIOLOGY FIELD OF STUDY**For more information, visit [www.laredo.edu/](http://www.laredo.edu/) and your academic advisor.

The AS degree with an emphasis in biology is designed to prepare students for various career opportunities in medicine, health fields, research, and education. This program is intended to provide a foundation on which the graduate can build a career in biological sciences as they transfer to a 4-year university.

Speak with an academic advisor at your college to choose courses that will help you to transfer to a specific university.

**COLLEGE READINESS REQUIREMENTS (only for the AAS)**

Enrolling in one or more courses may be necessary if assessment activities and previous academic experiences indicate a need for additional knowledge and skills:

**READING & WRITING PLACEMENT****MATH PLACEMENT****ENGLISH LANGUAGE PROFICIENCY****TSIA 2 MET: YES / NO**

IF NO, ADVISOR INSERT COURSE(S) NEEDED

☐ **INRW** \_\_\_\_\_☐ **OTHER:** \_\_\_\_\_**TSIA 2 MET: YES / NO**

IF NO, ADVISOR INSERT COURSE(S) NEEDED

☐ **DEV MATH** \_\_\_\_\_☐ **OTHER:** \_\_\_\_\_**TSIA 2 MET: YES / NO**

IF NO, ADVISOR INSERT COURSE(S) NEEDED

☐ **ESOL** \_\_\_\_\_☐ **OTHER:** \_\_\_\_\_

Exemptions/waivers may exist. Speak with an academic advisor regarding placement in college readiness courses and your ability to enroll in core academic coursework.

**SEMESTER BY SEMESTER MAP FOR FULL-TIME STUDENTS\***

D		SEMESTER 1	ACTION ITEMS
◆		<b>ENGL 1301</b> – Composition I (CORE)	<input type="checkbox"/> Meet with your advisor to confirm academic and career goals before taking courses and again at the end of the semester.
◆		<b>MATH 1316</b> - Plane Trigonometry (CORE)	
◆		<b>BIOL 1306</b> - Biology for Science Majors I (CORE)	
◆		<b>BIOL 1106</b> – Biology for Science Majors I Laboratory	
◆		<b>CHEM 1311</b> - General Chemistry I (CORE)	
◆		<b>CHEM 1111</b> - General Chemistry I Laboratory	

**TOTAL SEMESTER CREDIT HOURS: 14**

D		SEMESTER 2	ACTION ITEMS
◆		<b>BIOL 1307</b> – Biology for Science Majors II (CORE)	<input type="checkbox"/> Meet with your advisor to track your progress towards completion of program/degree.
◆		<b>BIOL 1107</b> – Biology for Science Majors II Laboratory	
◆		<b>CHEM 1312</b> – General Chemistry II (CORE)	
◆		<b>CHEM 1112</b> – General Chemistry II Laboratory	
◆		<b>ENGL 1302</b> – Composition II (CORE)	
◆		<b>XXXX X3XX</b> – Component Area Option (CORE)	

**TOTAL SEMESTER CREDIT HOURS: 14**

D		SEMESTER 3	ACTION ITEMS
◆		<b>CHEM 2323</b> – Organic Chemistry I	<input type="checkbox"/> Meet with your advisor to track your progress towards completion of program/degree.
◆		<b>CHEM 2123</b> – Organic Chemistry I Laboratory	
◆		<b>HIST 1301</b> – United States History I (CORE)	
◆		<b>ENGL X3XX</b> – Language, Philosophy and Culture (CORE)	
◆		<b>XXXX-X3XX</b> – Component Area Option (CORE)	
◆		<b>GOVT 2305</b> – Federal Government (Federal Constitution and Topics) (CORE)	

**TOTAL SEMESTER CREDIT HOURS: 16**

D		SEMESTER 4	ACTION ITEMS
◆		<b>PHYS 1301</b> – College Physics I (CORE)	<input type="checkbox"/> Meet with your advisor to track your progress towards completion of program/degree.
◆		<b>PHYS 1101</b> – College Physics I Laboratory (CORE)	
◆		<b>HIST 1302</b> – United States History II (CORE)	
◆		<b>GOVT 2306</b> – Texas Government (Texas Constitution and Topics) (CORE)	
◆		<b>XXXX X3XX</b> – Social/Behavioral Science (CORE)	
◆		<b>XXXX X3XX</b> – Creative Arts Elective (CORE)	

**TOTAL SEMESTER CREDIT HOURS: 16****AA/AS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS/PATHWAY TOTAL: 60 SEMESTER CREDIT HOURS**

To complete this degree in 2 years it is recommended that you register for the total number of hours listed for each semester. If you cannot take the recommended number of sch, consult with your advisor for maymester, summer and wintermester options.

Mathematics course options: MATH 1314, MATH 1316, MATH 1324, MATH 1332, MATH 1342, MATH 2412, MATH 2413

Creative Arts course options: ARTS 1301, ARTS 1303, ARTS 1304, DANC 2303, DRAM 1310, MUSI 1306, MUSI 1308, MUSI 1309, MUSI 1310

Life and Physical Science course options: BIOL 1306, BIOL 1307, BIOL 1308, BIOL 1309, BIOL 1311, BIOL 1313, BIOL 2301, BIOL 2306, CHEM 1305, CHEM 1311, CHEM 1312, ENGR 1201, GEOL 1301, GWOL 1303, GEOL 1305, PHYS 1301, PHYS 1302, PHYS 1315, PHYS 1410, PHYS 1417, PHYS 2325, PHYS 2326

Language Philosophy and Culture course options: ENGL 2322, ENGL 2323, ENGL 2326, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2351

Social Behavioral Science course options: ECON 2301, ECON 2302, PSYC 2301, PSYC 2306, PSYC 2308, PSYC 2314, PSYC 2317, SOCI 1301, SOCI 1306, SOCW 2361, SCOW 2362

Component Area Option course options: BCIS 1305, COSC 1301, COSC 1436, KINE 1304, SPCH 1311, SPCH 1315

## Career Information

Biologists can enter into various careers in medicine, health fields, research, and education.

### Common Job Titles

**Biological Technician Salary and Job Outlook:** The Bureau of Labor Statistics (BLS) estimates that biological technicians earned a median annual salary of \$52,000 in May 2024.

**Biochemist Salary and Job Outlook:** The BLS estimates that biochemists earned a median annual salary of \$102,270 in May 2021. **Genetic Counselor Salary and Job Outlook:** The BLS estimates that genetic counselors earned a median annual salary of \$95,770 in May 2023. The top 10% earned more than \$121,070 and the bottom 10% earned less than \$49,120. The BLS projected that employment in this field will grow by 26% between 2020 and 2030, much faster than average for all occupations.

**Health Communications Specialists Salary:** According to Payscale, health communications specialists earn an average annual salary of \$63,335 in July 2025.. The top 10% earned \$84,000 or more and the bottom 10% earned \$50,000 or less.

**Health Educator Salary and Job Outlook:** The BLS estimates that health educators earned a median annual salary of \$56,476 in July 2025. The top 10% earned more than \$70,720 and the bottom 10% earned less than \$30,440. The BLS projected that employment in this field will grow by 17% between 2020 and 2030, much faster than average for all occupations.

**Pharmaceutical/ Medical Product Sales Representative Salary and Job Outlook:** The BLS estimates that sales representatives of technical and scientific products earned a median annual salary of \$94,930 in July 2025. The top 10% earned more than \$168,320 and the bottom 10% earned less than \$44,460. The BLS projected that employment in this field will grow by 6% between 2020 and 2030, slower than average for all occupations.

**Physician Assistant and Nurse Practitioner Salary and Job Outlook:** The BLS estimates that physician assistants earned a median annual salary of \$130,020 in July 2025. The top 10% earned more than \$168,030 and the bottom 10% earned less than \$77,940. The BLS projected employment in this field to grow by 31% between 2020 and 2030, much faster than average for all occupations.

**Medical and Health Services Manager Salary and Job Outlook:** The BLS estimates that medical and health services managers earned a median annual salary of \$117,960 in May 2024. The top 10% earned more than \$205,620 while the bottom 10% earned less than \$60,780. The BLS projected that employment in this field will grow by 32% between 2020 and 2030, much faster than average for all occupations.

## Transfer Information

AA/AS to BA/BS  
Program

**Laredo College:** Before enrolling in courses at Laredo College to pursue a Bachelor of Science or Bachelor of Arts, consult with an academic advisor to ensure your academic and career goals are aligned.

**Transfer Guides:** The universities listed here are not endorsed by Laredo College. The receiving institution evaluates transfer courses and determines which will count toward a Bachelor's degree.

**The University of Texas at San Antonio (UTSA):** BA/BS in Biology (<https://future.utsa.edu/programs/undergraduate/biology/> )

**Texas A&M International University (TAMU):** BA/BS in Biology ( <https://catalog.tamui.edu/undergraduate-information/arts-sciences/biology-chemistry/> )

**Additional Transfer Resources:** Laredo College [transfer planning guide website](#) provides information on additional colleges & universities. Students are encouraged to consult with a faculty advisor, area of study advisor, and/or their chosen transfer institution to ensure courses taken at LC will apply toward their bachelor's degree program.