

# AS-T Biology to B.S. Biology: Teacher Preparation Concentration 2023-2024

This pathway is for students who have completed an AS-T in Biology with IGETC for STEM, and have sent official degree verification to CSUMB. The CSUMB pathway includes 6 units of lower-division GE (based on IGETC for STEM), the CSU American Institutions requirement, and 9 units of upper-division GE.

Transfer students who did not complete an Associate for Transfer in Biology should meet with the Biology academic advisor to update their individualized pathway in the "My Learning Plan" degree planner in Oasis.

Fall Junior Courses (15 units)	Course or GE Title	Units	GE/Major
<b>BIO 330</b>	Physiology or Evolutionary Biol course	3	Concentration
<b>CHEM 211 &amp; CHEM 211L</b>	Organic Chemistry I & Lab	3+2	Major
<b>STAT 250</b>	Applied Stats for Science & Tech	4	Major
<b>Lower-division GE area C and World Culture and Language requirement</b>	Language other than English and C2 for completion of IGETC	3	C2, WCL
Spring Junior Courses (16 units)	Course or GE Title	Units	GE/Major
<b>BIO 340</b>	Ecology	4	UDB, conc
<b>BIO 320</b>	Microbiology	4	Concentration
<b>BIO 301</b>	Research & Technical Writing in Biology	2	GWAR, Core
<b>SL 210S or ED 212S</b>	Completion of IGETC and US2,3	3	DCSL (US2,3)
<b>GEOL 210</b>	Introduction to Earth Science	3	Concentration
Fall Senior Courses (17 units)	Course or GE Title	Units	GE/Major
<b>BIO 341</b>	Evolutionary Biol & Population Genetics	3	Concentration
<b>BIO 379S</b>	Biology Service Learning	3	UDSL, Conc
<b>MSCI 337 (fall only)</b>	Robotics for Ecological Research	4	Concentration
<b>BIO 311</b>	Genetics	4	UDB, Major
<b>Upper-Division Arts or Humanities GE</b>	Any UDC	3	UDC
Spring Senior Courses (14 units)	Course or GE Title	Units	GE/Major
<b>Teacher Preparation Elective</b>	Concentration Elective	3	Concentration
<b>BIO 493+494 or BIO 421+492 or BIO 430+MSCI 410 or BIO 444+BIO 492 or BIO 448+ENVS 410 or MSCI 437+MSCI 410</b>	Biology Education Capstone	4-5	Concentration
<b>HCOM 353 or SBS 350 or HCOM 369</b>	UD Social Science with US History and CSUMB Ethnic Studies	3	UDD, US1, ES*
<b>PHYS 221</b>	Physics II	4	Elective if needed
<b>BIO Teacher Prep AS-T pathway:</b>		<b>62</b>	

\*Note: Students on GE catalogs prior to fall 2021 must complete the CSUMB ethnic studies (ES) requirement.