ADT Submission Form for Biology CCC Major or Area of Emphasis: Biology
TOP Code: 040100
CSU Major(s): Biology
Total Units: 29 *(all units are minimum semester units)*

In the four columns to the right under the **College Program Requirements**, enter the college's course identifier, title and the number of units comparable to the course indicated for the form. If the course may be double-counted with Cal-GETC, enter the GE Area to which the course is articulated. To review the GE Areas and associated unit requirements, please go to Chancellor's Office Academic Affairs page, RESOURCE section located at:

https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/What-we-do/Curriculum-and-Instruction-Unit/Templates-For-Approved-Transfer-Model-Curriculum

or the ASSIST website:

https://www.assist.org/.

The units indicated in the template are the **minimum** semester units required for the prescribed course or list. All courses must be CSU transferable. ***All courses with an identified C-ID Descriptor must be submitted to C-ID prior to submission of the Associate Degree for Transfer (ADT) proposal to the Chancellor's Office.***

Where no **C-ID Descriptor** is indicated, discipline faculty should compare their existing course to the example course(s) provided in the TMC at:

http://www.c-id.net/degreereview.html

Attach the appropriate ASSIST documentation as follows:

- *Articulation Agreement by Major* (***AAM***) demonstrating lower division preparation in the major at a CSU;
- *CSU Baccalaureate Level Course List by Department* (***BCT***) for the transfer courses; and/or,
- *CSU GE Certification Course List by Area* (***GECC***).

The acronyms ***AAM, BCT,*** and ***GECC*** will appear in **C-ID Descriptor** column directly next to the course to indicate which report will need to be attached to the proposal to support the course's inclusion in the transfer degree. To access ASSIST, please go to http://www.assist.org.

Associate in Science in Biology for Transfer Degree College Name: Santa Rosa Junior College						
TRANSFER MODEL CURRICULUM (TMC)		**COLLEGE PROGRAM REQUIREMENTS**				
Course Title (units)	**C-ID Descriptor**	**Course ID**	**Course Title**	**Units**	**Cal-GETC**	
REQUIRED CORE: (8-12 units)						
Biology Sequence for Majors (8)	BIOL 135S					

TRANSFER MODEL CURRICULUM (TMC)		COLLEGE PROGRAM REQUIREMENTS			
Course Title (units)	**C-ID Descriptor**	**Course ID**	**Course Title**	**Units**	**Cal-GETC**
OR Cell and Molecular Biology (4) ***and*** Organismal Biology (4) **OR** Cell and Molecular Biology (4) ***and*** Organismal Biology(4), Ecology and Evolution (8) **OR** Cell and Molecular Biology (4) ***and*** Zoology/Animal Diversity and Evolution (4) ***and*** Botany/Plant Diversity and Ecology(4)	BIOL 190 BIOL 140 BIOL 190 BIOL 130S BIOL 190 BIOL 150 BIOL 155	BIO 2.1 AND BIO 2.2 AND BIO 2.3	Fundamentals of Biology (Cell and Molecular) Fundamentals of Biology (Evolution, Genetics, and Zoology) Fundamentals of Biology (Botany and Ecology)	5.00 5.00 5.00	5B 5B 5B
LIST A: (21-22 units)					
General Chemistry for Science Majors Sequence A (10)	CHEM 120S	CHEM 3A AND CHEM 3AL AND CHEM 3B	General Chemistry: Part 1 Lecture General Chemistry: Part 1 Lab General Chemistry: Part 2	3.00 2.00 5.00	5A 5A 5A
Single Variable Calculus I – Early Transcendentals (4) **OR** Single Variable Calculus I – Late Transcendentals (4) **OR** Calculus for Life and Social Sciences (3)	MATH 210 **OR** MATH 211 **OR** ***AAM***	MATH 1A MATH 27	Calculus, First Course Precalculus Algebra and Trigonometry	5.00 6.00	2 2

TRANSFER MODEL CURRICULUM (TMC)		COLLEGE PROGRAM REQUIREMENTS			
Course Title (units)	**C-ID Descriptor**	**Course ID**	**Course Title**	**Units**	**Cal-GETC**
Algebra/Trigonometry-Based Physics A (4) **AND** Algebra/Trigonometry-Based Physics B (4) **OR** Calculus-Based Physics for Scientists and Engineers: A (4) **AND** Calculus-Based Physics for Scientists and Engineers: B (4) **OR** Algebra/Trigonometry-Based Physics: AB (8)	PHYS 105 **AND** PHYS 110 **OR** PHYS 205 **AND** PHYS 210 **OR** PHYS 100S	PHYS 20A AND PHYS 20B OR PHYS 40 AND PHYS 42	General Physics Part I General Physics Part II Classical Mechanics for Scientists and Engineers Electricity and Magnetism for Scientists and Engineers	4.00 4.00 5.00 4.00	5A 5A 5A 5A

LIST B: Select additional major preparation (if possible based on unit limitation and if required articulation exists, zero to one course (0-4 units minimum): Select one (1) additional course that is articulated as major preparation at a CSU campus	***AAM***				
Total Units for the Major:	**29-38**		**Total Units for the Major:**	**38-40**	
			Total Double-counted Units (***The transfer GE Area limits must <u>not</u> be exceeded)***		**10**
			***General Education (Cal-GETC) Units**		**34**
			Elective Units		**0**
			Total Degree Units (maximum)		**60**

<u>NOTES:</u>

List B should indicate if BIOL 135S is chosen, then one course from List B may be chosen. Then the total units for the major would be 29-34.

Prior TMC included:
Use of a transferable general education pattern designed for STEM (i.e., IGETC or CSU GE Breadth for STEM) is presumed.