Transfer Model Curriculum (TMC) Template for Mathematics
CCC Major or Area of Emphasis: Mathematics
TOP Code: 170100
CSU Major(s): Mathematics
Total Units: 18 *(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 TMC. If the course may be double-counted with either CSU-GE or IGETC, 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**:**
    http://extranet.cccco.edu/Divisions/AcademicAffairs/CurriculumandInstructionUnit/TransferModelCurriculum.aspx

or the ASSIST website:
    http://web1.assist.org/web-assist/help/help-csu_ge.html.

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 Mathematics 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**	**GE Area**	
					CSU	**IGETC**
REQUIRED CORE: (12 units) **Select 1 of 3 options** **Option 1:**						
Single Variable Calculus I – Early Transcendentals (4) **OR** Single Variable Calculus I – Late Transcendentals (4)	MATH 210 **OR** MATH 211					
Single Variable Calculus II – Early Transcendentals (4) **OR** Single Variable Calculus II – Late Transcendentals (4)	MATH 220 **OR** MATH 221					
Multivariable Calculus (4)	MATH 230					
OR						
Option 2:						
Single Variable Calculus Sequence (8) **OR**	MATH 900S **OR**	MATH 1A MATH 1B	Calculus, First Course Calculus, Second Course	5 5	B4 B4	2A 2A

Course	Number	Transfer #	Transfer Title	Units	CSU-GE	IGETC
Single Variable Calculus I – Early Transcendentals (4) **AND** Single Variable Calculus II – Early Transcendentals (4) **OR** Single Variable Calculus I – Late Transcendentals (4) **AND** Single Variable Calculus II – Late Transcendentals (4)	MATH 210 **AND** MATH 220 **OR** MATH 211 **AND** MATH 221					
Multivariable Calculus (4)	MATH 230	MATH 1B MATH 1C	Calculus, Second Course Calculus, Third Course	5 4	B4	2A
OR						
Option 3:						
Single Variable and Multivariable Calculus Sequence (3 semester/4 quarters for 12 units)	*AAM*					
Select 6 units minimum from the LISTS below with at least 3 units from LIST A.						
LIST A: Select one to two (3-6 units)						
Ordinary Differential Equations (3)	MATH 240	MATH 2	Calculus, Fourth Course-Differential Equations	4		
Introduction to Linear Algebra (3)	MATH 250	MATH 5	Introduction to Linear Algebra	4		
OR						
Differential Equations and Linear Algebra (5)	MATH 910S					
LIST B: Select one (1-4 units)						
Discrete Mathematics (3)	MATH 160	MATH 4	Discrete Mathematics	4		
Calculus-Based Physics for Scientists and Engineers: A (4)	PHYS 205	PHYS 40	Classical Mechanics for Scientists and Engineers	5	B1, B3	5A, 5C
Mathematical Computing Systems (1)	*AAM*					
Computer Programming (3)	*AAM*	CS 10A	Introduction to Programming Concepts and Methodologies	4		
Proof (3)	*AAM*	MATH 6	An Introduction to Higher Math	4		
Introduction to Statistics (3)	MATH 110	MATH 15	Elementary Statistics	4	B4	2A
Total Units for the Major:	**18**	**Total Units for the Major:**		22-23		

Total Units that may be double-counted (*The transfer GE Area limits must <u>not</u> be exceeded*)	3	3
General Education (CSU-GE or IGETC) Units	**39**	**37**
Elective (CSU Transferable) Units	1-2	3-4
Total Degree Units (maximum)	**60**	

NOTE:

While 3 units are required from LIST A, no units are required from LIST B. The major must be a minimum of 18 semester units.