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| **Transfer Model Curriculum (TMC) Template for Mathematics** | Template # 2001 |
| **CCC Major or Area of Emphasis:** Mathematics | Rev. 4: 09/01/14 |
| **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>.

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| **Associate in Science in Mathematics for Transfer Degree**  **College Name:** | | | | | | |
| **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**  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 900S  **OR**  MATH 210  **AND**  MATH 220  **OR**  MATH 211  **AND**  MATH 221 |  |  |  |  |  |
| Multivariable Calculus (4) | MATH 230 |  |  |  |  |  |
| **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 |  |  |  |  |  |
| Introduction to Linear Algebra (3) | MATH 250 |  |  |  |  |  |
| **OR** | |  | | | | |
| Differential Equations and Linear Algebra (5) | MATH 910S |  |  |  |  |  |
| **LIST B: Select one** (1-4 units) |  |  | | | | |
| Discrete Mathematics (3) | MATH 160 |  |  |  |  |  |
| Calculus-Based Physics for Scientists and Engineers: A (4) | PHYS 205 |  |  |  |  |  |
| Mathematical Computing Systems (1) | ***AAM*** |  |  |  |  |  |
| Computer Programming (3) | ***AAM*** |  |  |  |  |  |
| Proof (3) | ***AAM*** |  |  |  |  |  |
| Introduction to Statistics (3) | MATH 110 |  |  |  |  |  |
| **Total Units for the Major:** | **18** | **Total Units for the Major:** | |  |  | |
|  | | **Total Units that may be double-counted**  **(*The transfer GE Area limits must not be exceeded)*** | | |  |  |
| **General Education (CSU-GE or IGETC) Units** | | | **39** | **37** |
| **Elective (CSU Transferable) Units** | | |  |  |
| **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.*