

**San Antonio College 2+2 Plan  
Bachelor of Arts in Mathematics (MATH)**

**San Antonio College (SAC)\*  
Lower Level Courses ‡**

**SAC Coursework\*\***

<b>Discipline or Area</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>
ARTS/DRAM/MUSI <sup>1</sup>	See Note Below	See Note Below	3
BIOL or GEOL <sup>2</sup>	See Note Below	See Note Below	8
CHEM or PHYS <sup>3</sup>	See Note Below	See Note Below	8
ENGL	1301	Freshman Comp. I	3
ENGL	1302	Freshman Comp. II	3
Two Engl. Lit. Courses <sup>4</sup>	See Note Below	See Note Below	6
GOVT <sup>5</sup>	2301	Amer./Texas	3
GOVT <sup>5</sup>	2302	Amer.: Prob & Pol	3
HIST	1301	History of US I	3
HIST	1302	History of US II	3
COSC or ITSC	1301	Computer Literacy	3
KINE <sup>6</sup>	11xx	Physical Ed. Courses	Min. of 2 Hours
MATH	1348	Analytic Geometry	3
MATH <sup>7</sup>	2412	Pre-Calculus	4
MATH	2413	Calculus I	4
MATH	2414	Calculus II	4
MATH	2415	Calculus III	4
Mod. Foreign Lang. <sup>8</sup>	See Note Below	See Note Below	12 to 14 Hours
PSYC or SOCI <sup>9</sup>	PSYC 2301 or SOCI 1301	See Note Below	3
SPCH	1311 or 1321	Speech Course	3
ELECTIVE or MINOR ‡ <sup>10</sup>	See Definition and Note Below	See Below	(3)

**Total SAC Credit Hours = 85 to 91**

**Texas A&M University-Kingsville System Center (TAMUK-SC)  
Upper Level/Advanced Courses ‡**

**TAMUK-SC Coursework\*\***

<b>Discipline or Area</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>
MATH	3320	Differ. Equations	3
MATH	3325	Intro. to Proofs	3
MATH	4321	Real Variables	3
MATH	4341 or 4373	Linear Algebra w/ Matrix Theory or Application of Matrix Methods	3
MATH <sup>11</sup>	Advanced Elective	See Note Below	3
MATH	Advanced Elective	NA	3
MATH	Advanced Elective	NA	3

MATH	Advanced Elective	NA	3
MATH <sup>12</sup>	Advanced Elective	NA	3
MINOR <sup>11</sup>	See Note Below	NA	18 to 24 Hours
ADV. ELECTIVES ‡ <sup>13</sup>	See Definition & Note Below	See Below	NA

**TAMUK Credit Hours = 45 to 51**  
**Overall Credit Hours = 130 to 142**

### ‡ Definition of Terms

**Lower-level Courses** – courses numbered 1xxx or 2xxx (e.g., HIST 1301, ENGL 2323).

**Upper-level/Advanced courses** – courses numbered 3xxx or 4xxx.

**Core Curriculum** – (AKA “the core”) a set of lower-level courses required for all degree programs (these courses are taken at the community college).

**Electives** – courses that are not part of the core curriculum and are not required for the student’s major or minor. Electives count toward the overall hours required for the degree.

**Advanced Electives** – 3xxx or 4xxx level courses that do not count toward the student’s major or minor. Advanced electives may be taken in any discipline (e.g., HIST, SOCI) including the student’s major or minor (i.e., courses taken in either discipline beyond requirements for the major or minor). Advanced electives count toward the 45 advanced credit hours required for graduation and toward the minimum overall hours required for graduation.

### General Degree Requirements

**Students must meet all degree requirements specified in the TAMUK Undergraduate Catalog.**

**Grade Point Average (GPA)** - To graduate students must have a minimum GPA of 2.00 overall and in their major and minor.

**The 24/6 Hour Rule** (AKA the 30-hour rule) – The rule states that no more than 6 of the last 30 credits hours applied toward a TAMUK degree may be taken at another institution (and transferred in). **The consequences for violating the rule are very serious.** Thus, students who have not yet completed all their coursework at SAC (e.g., core courses, foreign languages) when they enroll at TAMUK should take those courses as soon as possible.

**Substitutions** - All course substitutions not specified here must be approved by the student’s TAMUK advisor.

**The Major** – The B.A. in mathematics requires a minimum of **XXX** credit hours, which includes 45 hours of MATH (including MATH 1348 – Analytic Geometry [which fulfills the core curriculum MATH requirement] and a MATH Advanced Elective to offset the Calculus III substitution [see note 7 below]) and MATH 2412 – Pre-Calculus.

**MATH courses in which the student earns less than a “C” do not count toward the MATH major.**

### Notes –

\* **Completion of an A.A. degree in Mathematics at SAC requires additional coursework. Please see the SAC Catalog and SAC advisor for details.**

\*\* Students are encouraged to take courses during summer sessions to reduce course loads during long (i.e., fall and spring) semesters.

1. One course selected from ARTS 1301, 1303, 1304, DRAM 1310, or MUSI 1306.
2. Two BIOL or GEOL courses with labs. Approved courses include: BIOL 1406 & 1407; BIOL 2401 & 2402; and GEOL 1401 & 1402.
3. Two CHEM or PHYS courses with labs. Approved courses include: CHEM 1311/1111; CHEM 1312/1112; PHYS 1401 & 1402; PHYS 2425 & 2426.
4. Any two English literature courses (e.g., ENGL 2323, ENGL 2328).
5. Approved substitutes – GOVT 2305 and 2306.
6. Students who enroll at TAMUK before completing the SAC core curriculum *and* who will be less than 24 years old when they graduate from TAMUK *must* take a third KINE course.
7. MATH 2412 – Pre-calculus – is *not* required for the TAMUK degree; however, this course is one prerequisite option for MATH 2313. The other option is to take both MATH 1316 and 1348 (prerequisites are subject to change; please check current SAC Bulletin).
8. At least four courses (a minimum of 12 semester hours) in French, German, Spanish or other foreign language approved by TAMUK advisor. American Sign Language (SGNL) also fulfills the foreign language requirement. Students may also “test out” of (i.e., CLEP) foreign language courses. Students who choose this option should have their CLEP scores reported to the community college where they take the test.
9. These courses fulfill the Social/Behavioral Science requirement. Approved substitutes include: ECON 2301; ECON 2302; and SOCI 1306..
10. **The Minor** – Students must have a Minor (i.e., a minor area of study). Minors require 18 to 24 hours in a recognized discipline; at least 6 of those hours must be in advanced (3xxx-4xxx level) courses. However, most students take more the 6 advanced hours because those hours count toward the 45 advanced hour minimum required for graduation. Minors are available in: Business Administration, CRIM, ENGL, HIST, PHYS, PSYC, and SOCI. Please refer to “Recognized Minors” for the College of Arts & Sciences in the TAMUK Catalog (pp. 112-113 of the 2004-2006 Catalog) for specific requirements. All minors require lower-level introductory courses which are taken at the community college.
11. Advanced MATH electives are 3000- or 4000-level MATH courses not specifically required on the degree plan.
12. MATH 3315 – Calculus III – is required for the major, but is not offered at the System Center at this time. Calculus III taken at SAC satisfies the requirement. However since the SAC course is not an advanced course, students must take an additional advanced-level MATH course to offset the substitution (for a total of five MATH advanced electives).
13. The degree requires a minimum of 45 advanced credit-hours. Some students may need one or more advanced electives to reach that.