



MEMORANDUM OF AGREEMENT

**Texas A&M University-Kingsville
Frank H. Dotterweich College of Engineering**

and

**South Texas College
Division of Math, Science, and Bachelors Programs**

and

Division of Business, Public Safety, and Technology Programs

South Texas College ("STC" herein) and Texas A&M University-Kingsville, a member of The Texas A&M University System, an agency of the State of Texas ("TAMUK" herein) are pleased to confirm and sustain a positive and mutually beneficial working relationship. The educational needs of the students in our common service region continue to increase. In order to be responsive to the needs of our students, STC Division of Math, Science, and Bachelor Programs and TAMUK Frank H. Dotterweich College of Engineering seek to expand our existing relationship. Focused efforts will be made to provide clear pathways between institutions for students pursuing careers in Engineering, Computer Science, and related Science, Technology, Engineering, and Math ("STEM" herein) fields with little or no loss of academic credits. This will be an ongoing effort providing immediate as well as future opportunities to create near seamless transfer between STC and TAMUK Engineering, Computer Science, or related STEM programs.

The following agreement outlines five areas of potential cooperative initiatives designed to promote the success of students attending both academic institutions and to facilitate access to higher education in the region. These five areas include:

1. Joint Engineering Admission Program
2. Program/Course mapping
3. Reverse Transfer
4. Summer Bridge initiative
5. Non-Academic Consortium Agreements regarding financial aid, libraries, computer labs, etc.

In order to continuously improve the educational opportunities in our service area, these five potential areas may be expanded as new needs are identified.

Joint Engineering Admission Program

The Joint Engineering Admission Program (JEAP) will enable students to identify themselves as a student of both institutions prior to a change in physical campus location. In addition, it will provide access to additional facilities and programs offered by STC and TAMUK that may enhance or improve student success and

provide a more seamless transition between the two institutions. Components of the joint admission program must include, but are not limited to:

1. Concurrent enrollment
2. Issuance of TAMUK and STC student IDs
3. TAMUK and STC email accounts
4. Access to TAMUK and STC online libraries and computer facilities operated by TAMUK and STC.
5. Participation in student activities at both TAMUK and STC campuses.
6. Access to TAMUK and STC academic advisors.

After acceptance into the joint admission program, students must continually meet the admission requirements and academic performance standards of both institutions in order to remain in the program.

Joint Engineering Admission Program (JEAP) Requirements

1. STC students are eligible for the JEAP once the following criteria are met: a) declared as an engineering major; b) has earned 12 academic credit hours; c) has completed Calculus I with a "C" or better; and d) has a cumulative GPA of 2.5.
2. Transferrable coursework will be articulated but credit will not be applied towards a students' degree plan at TAMUK for any math, science, or engineering course for which the student did not earn a "C" or better at STC.
3. The institutions will cooperate in promoting the JEAP.
4. Students admitted in the JEAP Program are not guaranteed admission into programs at TAMUK that require a secondary application of native campus students (Teacher Education, Business Administration, etc.).
5. Students in the JEAP will be permitted to register during registration periods for native students.
6. Advising services at both institutions will be provided to students in the JEAP.
7. Access to facilities, computer laboratories, and libraries at both institutions will be provided to students in the JEAP.
8. Students in the JEAP must remain in good academic standing at both institutions in order to continue in the program. Students failing to maintain good academic standing will be required to meet with an academic advisor. An action plan will be developed to help the student regain good academic standing during a one semester probationary period.
9. Students in the JEAP must adhere to the rules and regulations and deadlines of the institution that they are currently attending.
10. The institutions will exchange student information within legal limitations in order to facilitate the flexible nature of the JEAP.
11. Students accepted in the JEAP may transfer from one institution to another, alternate enrollment between the institutions, or concurrently enroll at both institutions.
12. Students must declare the degree being sought at both STC and TAMUK and shall follow the core curriculum requirements as outlined in the program mapping attached to this document.
13. Academic and non-academic appeals or grievances must be managed through the appropriate channels in the institution in which the event occurs.
14. Students in the JEAP are eligible to apply for scholarships at TAMUK beginning their first semester of enrollment in TAMUK courses.

Reverse Transfer and Student Performance Program

Reverse Transfer allows students who have matriculated to TAMUK prior to completion of an associate's degree at STC, to transfer course work from TAMUK back to STC in order to complete the associate degree. This feature may be extremely advantageous to students whose higher education plans are interrupted by life circumstance and the completion of the associate's degree becomes a valuable indicator of their success. Specifically, TAMUK and STC agree to the following:

1. The institutions will exchange student information within legal limitations in order to promote the reverse transfer program.
2. TAMUK will encourage STC transfer students to utilize the Reverse Transfer Program in order to complete the associate's degree.
3. STC and TAMUK will make efforts to develop automatic reverse transfer for students transferring between institutions.
4. TAMUK will share STC transfer students' performance data in an effort to improve student success.

Non-Academic Consortium Agreements

Non-academic departments or offices of STC and TAMUK, including but not limited to Financial Aid, Admissions, Distance Education, and Career Services will explore opportunities to develop agreements that facilitate student access and success.

1. The institutions will exchange student information within legal limitations in order to facilitate these consortium agreements.
2. Development of a Financial Aid Consortium Agreement will be a priority for institutions (TAMUK's Director of Financial Aid will facilitate, administer and monitor all financial aid consortium agreements to ensure that they clearly and explicitly reflect the current Financial Aid Consortium documents approved by the Texas A&M University System).

Summer Bridge Initiative

STC and TAMUK agree to develop a summer bridge program to facilitate the transition of students between completion of studies at STC and commencement of studies at TAMUK. The goal will be to offer the first program in Summer 2019.

Program/Course Mapping

Program/course maps for specific TAMUK degree programs are found in the attached Appendix. Additional course maps may be added at any time with the written consent of both STC and TAMUK.

Course Duplication Agreement

It is agreed upon by both institutions that there will not be duplication of courses. STC will offer the lower-division courses as described in the Academic Course Guide Manual (ACGM) as put forth by the Texas Higher Education Coordinating Board. TAMUK may offer courses listed in the ACGM if they are required courses in the Appendix course mappings and not offered by STC. TAMUK will offer the upper-division courses that are found in the course mappings in Appendix unless listed as an lower-division level course in the ACGM.

Provisions for Agreement Implementation, Maintenance and Revision

A person will be designated at each campus to oversee implementation of this agreement and to review the agreement annually.

Term, Renewal and Termination of Agreement

The terms of this Agreement will be jointly reviewed annually by faculty and administrators whose programs are participating in the Joint Engineering Admissions Program. The Agreement will automatically be renewed with written amendments, if any, mutually agreed upon by both parties. TAMUK and STC reserve the right to terminate this Agreement upon written notice to the other party 90 days prior to the date of termination. In this event, the date of termination will be the day after the end of the semester during which the 90-day period expires. Any changes made to STC or TAMUK programs associated with the Joint Engineering Admissions Program must be shared with the partnering institution at least one semester before the changes take effect.

Severability

If any provision of this Agreement shall be held invalid or unenforceable, the validity, legality and

enforceability of the remaining portions shall not in any way be affected or impaired thereby.

Force Majeure

Neither party is required to perform any term, condition, or covenant of this Agreement, if performance is prevented or delayed by a natural occurrence, a fire, an act of God, an act of terrorism, or any other similar occurrence, the cause of which is not reasonably within the control of such party and which by due diligence is unable to prevent or overcome.

Non-Waiver Provision

STC expressly acknowledges TAMUK is an agency of the State of Texas and nothing in this Agreement will be construed as a waiver or relinquishment by TAMUK of its right to claim such exemptions, privileges, and immunities as may be provided by law.

Notices

Any notice required or permitted under this Agreement must be in writing, and shall be deemed to be delivered (whether actually received or not) when deposited with the United States Postal Service, postage prepaid, certified mail, return receipt requested, and addressed to the intended recipient at the address set out below. Notice may also be given by regular mail, personal delivery, courier delivery, facsimile transmission, email or other commercially reasonable means and will be effective when actually received. TAMUK and STC can change their respective notice address by sending a notice of the new address to the other party. Notices should be addressed as follows:

TAMUK: Dr. G. Allen Rasmussen
 Provost and Vice President for Academic Affairs
 Texas A&M University-Kingsville
 700 University Blvd., MSC 102
 Kingsville, TX 78363
 Phone: (361) 593-2808
 E-mail: george.rasmussen@tamuk.edu

STC: Dr. Anahid Petrosian
 Interim Vice President for Academic Affairs
 South Texas College
 3201 W. Pecan Blvd
 McAllen, TX 78501
 Phone: (956) 872-8336
 E-mail: anahid@southtexascollege.edu

Public Information Act

It shall be the independent responsibility of TAMUK and STC to comply with the provisions of Chapter 552, *Texas Government Code* (the "*Public Information Act*"), as those provisions apply to the parties' respective information. TAMUK is not authorized to receive public information requests or take any action under the *Public Information Act* on behalf of STC. Likewise, STC is not authorized to receive public information requests or take any other action under the *Public Information Act* on behalf of TAMUK.

Dispute Resolution

In accordance with 19 T.A.C. §4.27, all credit transfer disputes are to be handled as follows:

- (a) The following procedures shall be followed by the institutions of higher education in the resolution of credit transfer disputes involving lower division courses:
 1. If an institution of higher education does not accept course credit earned by a student at another institution of higher education, the receiving institution shall give written notice to the student and to the sending institution that transfer of the course credit is denied, and shall include in that notice the reasons for denying the credit. Attached to the written notice shall be the procedures for resolution of transfer disputes for lower division courses as outlined in this section, accompanied by clear instructions outlining the procedure for appealing the decision to the Commissioner of the Texas Higher Education Coordinating Board.
 2. A student who receives notice as specified in paragraph (1) of this subsection may dispute the denial of credit by contacting a designated official at either the sending or the receiving institution.
 3. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with the Texas Higher Education Coordinating Board rules and guidelines.
 4. If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days after the date the student received written notice of denial, the sending institution may notify the Commissioner in writing of the request for transfer dispute resolution, and the institution that denies the course credit for transfer shall notify the Commissioner in writing of its denial and the reasons for the denial.
- (b) The Commissioner or the Commissioner's designee shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.
- (c) The Board shall collect data on the types of transfer disputes that are reported and the disposition of each case that is considered by the Commissioner or the Commissioner's designee.
- (d) If a receiving institution has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, it should first contact the sending institution and attempt to resolve the problem. In the event that the two institutions are unable to come to a satisfactory resolution, the receiving institution may notify the Commissioner, who may investigate the course. If its quality is found to be unacceptable, the Board may discontinue funding for this course.
- (e) Each institution of higher education shall publish in its catalogs the procedures specified in subsections (a), (b), (c), and (d) of this section.

Executed by the undersigned representatives of the two institutions on the date reflected by each signature below.

Dr. George Allen Rasmussen
Provost and Vice President for Academic Affairs
Texas A&M University – Kingsville

Date: _____

Dr. Anahid Petrosian
Interim Vice President for Academic Affairs
South Texas College

Date: _____

Dr. Mohammad S. Alam
Dean, Frank H, Dotterweich College of Engineering
Texas A&M University – Kingsville

Date: _____

Dr. Ali Esmaeili
Dean, Math, Science and Bachelor Programs
South Texas College

Date: _____

APPENDIX

Articulation Agreement

between

**Texas A&M University-Kingsville (TAMUK)
Frank H. Dotterweich College of Engineering**

and

**South Texas College (STC)
Division of Math, Science, and Bachelors Programs**

Course Map for BS Degree Programs

(Updated on November 1, 2018)

- **Architectural Engineering**
- **Chemical Engineering**
- **Civil Engineering**
- **Computer Science**
- **Electrical Engineering**
- **Environmental Engineering**
- **Industrial Management and Applied Engineering Technology**
- **Mechanical Engineering**
- **Natural Gas Engineering**

Architectural Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
ENGR 1304	Engineering Graphics	3	AEEN 1310	Computer-Based Graphics and Design I	3
ENGL 1301	Composition	3	ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
ENGR 1201	Intro to Engineering	2	GEEN 1201	Engineering as a Career (UNIV 1101/1102)	2
		16			16
			2nd Semester		
			AEEN 2325	Intro to Development in Architecture	3
ENGR 2301	Statics	3	CEEN 2301	Mechanics I	3
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
		14			17
			3rd Semester		
ARCH 1303	Architectural Design I	3	AEEN 1320	Introduction to Architectural Design	3
			AEEN 3346	** Thermal Analysis	3
			CEEN 3311	** Strength of Materials	3
ENGR 2405	Electrical Circuits I	*4	EEEN 3331	Circuits and EM Devices	3
HIST 1301	United States History I	3	HIST 1301	American History	3
		9			15
			4th Semester		
			AEEN 3303	Structural Analysis	3
HIST 1302	United States History II	3	HIST 1302	American History	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
GOVT 2305	Federal Government	3	POLS 2301	Government and Politics of the US	3
ARCH 1301 or ARCH 1302	Architectural History I or Architectural History II	3		^Creative Arts Elective	3
PHIL 2306	Introduction to Ethics	3		^Language/Philosophy and Culture	3
		15			18

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			5th Semester		
			AEEN 3335	Environmental Systems for Buildings	3
			AEEN 3337	Building Electrical Systems	3
			CEEN 3143	Geotechnical Engineering Lab	1
			CEEN 3342	Geotechnical Engineering	3
			CEEN 3392	Hydraulics & Fluid Mechanics	3
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
					17
			6th Semester		
			AEEN 3304	Concrete Design	3
			AEEN 4320	Building Services Engineering	3
			POLS 2302	Government & Politics of Texas	3
				Mathematics Elective	3
	^Communication	3		^Communication	3
					15
			7th Semester		
			AEEN 4279	Senior Design Project I	2
			AEEN 4326	Construction Engineering	3
			CEEN 3317	Engineering Economy	3
	^Social/Behavioral	3		^Social/Behavioral	3
				Engineering Elective	3
				Engineering Elective	3
					17
			8th Semester		
			AEEN 4289	Senior Design Project II	2
			CEEN 3244	Construction Materials	2
			CEEN 3145	Construction Materials Lab	1
			STAT 4303	Statistical Methods	3
				Engineering Elective	3
				Science Elective	3
					14
	*Total Hours Transferred	64		Total Hours Required	129

Notes:

* STC students will receive credits up to the credit hours for equivalent TAMUK courses.

** TAMUK will offer Summer Bridge courses depending on sufficient number of STC students planning to make progress toward their degree in a timely manner.

Chemical Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
COSC 1436	Programming Fundamentals I	*4	CSEN 2303	Introduction to Computer Science	3
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		16			16
			2nd Semester		
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
CHEM 1412	General Chemistry II	4	CHEM 1312 CHEM 1112	General Inorganic Chemistry II and General Inorganic Chemistry II Lab	3 1
		15			15
			3rd Semester		
			CHEN 2371	Conservation Principles	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
CHEM 2423	Organic Chemistry I	4	CHEM 3323 CHEM 3123	Organic Chemistry I and Organic Chemistry I Lab	3 1
HIST 1301	United States History I	3	HIST 1301	American History	3
	^Language/Philosophy and Culture	3		^Language/Philosophy and Culture	3
		13			16
			4th Semester		
CHEM 2425	Organic Chemistry II	4	CHEM 3325 CHEM 3125	Organic Chemistry II and Organic Chemistry II Lab	3 1
MATH 2415	Calculus III	4	MATH 3415	Calculus III	4
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
ENGR 2303	Statics and Dynamics	3	MEEN 2355	Statics and Dynamics	3
GOVT 2305	Federal Government	3	POLS 2301	Government & Politics of the US	3
		18			18
			5th Semester		
GOVT 2306	Texas Government	3	POLS 2302	Government & Politics of Texas	3
	^Communication	3		^Communication	3
			CHEM 3331	Physical Chemistry I	3
	^Social/Behavioral	3		^Social/Behavioral	3
			CHEN 3392	Fluid Transport Phenomena	3
			CHEN 3347	Chemical Engr. Thermodynamics I	3
		9			18

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			CHEM 3332	Physical Chemistry II	3
			CHEM 3310	Heat Transfer Phenomena	3
			CHEM 3315	Design I	3
			CHEM 3321	Process Simulation	3
			CHEM 3371	Chem. Engr. Thermodynamics II	3
					16
			7th Semester		
			CHEM 4316	Chemical Process Design II	3
			CHEM 4373	Kinetics and Reactor Design	3
			CHEM 4278	Unit Operations Lab I	2
			CHEM 4389	Mass Transfer Phenomena	3
BIOL 1406	Biology for Science Majors I	*4	BIOL 1306	General Biology I	3
					14
			8th Semester		
			CHEM 4317	Chemical Process Design III	3
			CHEM 4279	Unit Operations Lab II	2
			CHEM 4392	Process Dynamics and Dynamics	3
			CHEM 4311	Biochemical Engineering	3
HIST 1302	United States History II	3	HIST 1302	American History	3
					14
	Total Hours Transferred	77		Total Hours Required	129

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

Civil Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
ENGR 1304	Engineering Graphics	3	AEEN 1310	Computer-Based Graphics and Design I	3
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		16			16
			2nd Semester		
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
HIST 1301	United States History I	3	HIST 1301	American History	3
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
	^Creative Arts Elective	3		^Creative Arts Elective	3
		17			17
			3rd Semester		
			CEEN 2113	Surveying Lab	1
			CEEN 2212	Surveying	2
ENGR 2301	Statics	3	CEEN 2301	Mechanics I	3
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
HIST 1302	United States History II	3	HIST 1302	American History	3
GOVT 2305	Federal Government	3	POLS 2301	Government and Politics of the US	3
		13			16
			4th Semester		
			CEEN 3311	Strength of Materials	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
ENGR 2302	Dynamics	3	MEEN 2302	Dynamics	3
				Computer Elective	3
	^Communication	3		^Communication	3
	^Language/Philosophy and Culture	3		^Language/Philosophy and Culture	3
		12			18
			5th Semester		
			CEEN 3143	Geotechnical Engineering Lab	1
			CEEN 3303	Structural Analysis	3
			CEEN 3342	Geotechnical Engineering	3
			CEEN 3392	Hydraulics & Fluid Mechanics	3
			STAT 4303	Statistical Methods	3
				Science Elective	3
					16

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			CEEN 3145	Construction Materials Lab	1
			CEEN 3167	Hydraulics & Environ. Engr. Lab	1
			CEEN 3244	Construction Materials	2
			CEEN 3304	Reinforced Concrete Design	3
			CEEN 3365	Environmental Engineering	3
				Math or Science Elective	3
				Special Elective	3
					16
			7th Semester		
			CEEN 3317	Engineering Economy	3
			CEEN 4279	Design in Civil Engineering I	2
			CEEN 4316	Structural Steel Design	3
			CEEN 4362	Hydrology	3
GOVT 2306	Texas Government	3	POLS 2302	Government & Politics of Texas	3
				Engineering Elective	3
					17
			8th Semester		
			CEEN 4289	Design in Civil Eng. II	2
			CEEN 4359	Transportation Eng.	3
				Engineering Elective	3
				Engineering Elective	3
	^Social/Behavioral	3		^Social/Behavioral	3
					14
	Total Hours Transferred	64		Total Hours Required	130

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

Computer Science Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
COSC 1436	Programming Fundamentals I	*4	CSEN 2304	Introduction to Computer Science	3
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
ENGR 1201	Intro to Engineering	2	GEEN 1201	Engineering as a Career (UNIV 1101/1102)	2
		16			16
			2nd Semester		
COSC 1337	Programming Fundamentals II	3	CSEN 2306	Object-Oriented Programming	3
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
HIST 1301	United States History I	3	HIST 1301	American History	3
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
		13			13
			3rd Semester		
			CSEN 2310	Object-Oriented Software Engineering	3
HIST 1302	United States History II	3	HIST 1302	American History	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equation	3
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
GOVT 2305	Federal Government	3	POLS 2301	Government and Politics of US	3
		13			16
			4th Semester		
COSC 2436	Programming Fundamentals III	*4	CSEN 2328	Data Structures and Algorithms	3
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
GOVT 2306	Texas Government	3	POLS 2302	Government and Politics of TX	3
ARTS 1303	Art Survey I	3	ARTS 1303	^Creative arts	3
	^Language/philosophy/culture	3		^Language/philosophy/culture	3
		16			16

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			5th Semester		
			CSEN 3315	Computer Graphics	3
ENGR 2406	Digital Systems Engineering I	*4	EEEN 2340	Digital Logic Design	3
			STAT 1342	Elementary Statistics	3
	^Communication	3		^Communication	3
	^Social/Behavioral	3		^Social/Behavioral	3
		9			15
			6th Semester		
			CSEN 3314	Database Systems	3
			CSEN 3316	Software Engineering I	3
COSC 2425	Computer Organization	4	EEEN 3449	Microprocessor Systems	4
			MATH 3370	Discrete Math	3
			POLS 4324	Technology and Society	3
					16
			7th Semester		
			CSEN 4201	Senior Project	2
			CSEN 4317	Software Engineering II	3
			CSEN 4320	Computer Networks	3
			EEEN 4344	Computer Architecture and Design	3
				Approved Elective	3
					14
			8th Semester		
			CSEN 4202	Senior Project	2
			CSEN 4340	Computer Security	3
			CSEN 4362	Operating Systems	3
			CSEN 4366	Programming Language	3
				Approved Elective	3
					14
	Total Hours Transferred	71		Total Hours Required	120

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

Electrical Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
ENGL 1301	Composition	3	ENGL 1301	Rhetoric and Composition	3
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
COSC 1436	Programming Fundamentals I	*4	CSEN 2304	Introduction to Computer Science	3
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		16			16
			2nd Semester		
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
HIST 1301	United States History I	3	HIST 1301	American History	3
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
ENGR 2406	Digital Systems Engineering I	*4	EEEN 2340	Digital Logic Design	3
		17			17
			3rd Semester		
HIST 1302	United States History II	3	HIST 1302	American History	3
GOVT 2305	Federal Government	3	POLS 2301	Government & Politics of the US	3
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
			EEEN 3449	Microprocessor Systems	4
		13			17
			4th Semester		
GOVT 2306	Texas Government	3	POLS 2302	Government & Politics of Texas	3
ENGR 2405	Electrical Circuits I	*4	EEEN 2323	Network Analysis I	3
	^Language/Philosophy and Culture	3		^Language/Philosophy/Culture	3
	^Communication	3		^Communication	3
	^Creative Arts	3		^Creative Arts	3
		15			15
			5th Semester		
MATH 2415	Calculus III	4	MATH 3415	Calculus III	4
			EEEN 3321	Network Analysis II	3
			EEEN 3325	Electronics I	3
			EEEN 3334	Random Signals	3
	^Social/Behavioral	3		^Social/Behavioral	3
		7			16

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			EEEN 3212	Circuits and Electronics Lab	2
			EEEN 3333	Linear Systems and Signals	3
			MATH 4341	Linear Algebra	3
			EEEN 3324	Electromagnetics	3
			EEEN 4355	Digital Systems Engineering	3
			CEEN 3317	Engineering Economy	3
					17
			7th Semester		
			EEEN 4342	Electronics II	3
			EEEN 4422	Electric Drives	4
			EEEN 4252	Advanced Laboratory	2
			EEEN 4354	Linear Control Systems	3
				Approved Elective	3
					15
			8th Semester		
			EEEN 4224	Electrical & Computer Engineering Projects Lab	2
			EEEN 4329	Communications Engineering	3
				Approved Elective	3
				Approved Elective	3
				Approved Elective	3
					14
		68		Total Hours Required	127

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

Environmental Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric and Composition	3
HIST 1301	United States History I	3	HIST 1301	American History	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		16			16
			2nd Semester		
ENGR 1304	Engineering Graphics	3	AEEN 1310 or MEEN 1310	Computer Based Graphics & Design	3
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
	^Language/Philosophy and Culture	3		^Language/Philosophy and Culture	3
		17			17
			3rd Semester		
CHEM 1412	General Chemistry II	4	CHEM 1312 CHEM 1112	General Inorganic Chemistry II and General Inorganic Chemistry II Lab	3 1
			EVEN 2310	Intro to Environmental Engineering	3
HIST 1302	American History	3	HIST 1302	American History	3
ENGR 2303	Statics and Dynamics	3	MEEN 2355	Statics and Dynamics	3
GOVT 2305	Federal Government	3	POLS 2301	Government & Politics of US	3
		13			16
			4th Semester		
BIOL 1406	Biology for Science Majors I	*4	BIOL 1306	General Biology I	3
COSC 1436	Programming Fundamentals I	*4	EVEN 2304	Computer Methods for Environmental Engineers	3
			EVEN 2311	Environmental Eng. Ethics and Policy	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
		13			18
			5th Semester		
CHEM 2423	Organic Chemistry I	4	CHEM 3323 CHEM 3123	Organic Chemistry I and Organic Chemistry I Lab	3 1
			EVEN 3321	Environmental Engineering Lab	3
			EVEN 3320	Chemical Principles for Environ. Engrs	3
GOVT 2306	Texas Government	3	POLS 2302	Government and Politics of Texas	3
	^Communication	3		^Communication	3
		10			16

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			CEEN 3317	Engineering Economy	3
			CEEN 3392	Hydraulics and Fluid Mechanics	3
			EVEN 3328	Environmental Eng. Process Fund.	3
			MEEN 3347 or CHEN 3347	Thermodynamics	3
			EVEN 2372	Environmental Eng. In Global Society	3
				Engineering Elective	3
					18
			7th Semester		
			EVEN 4102	Environmental Engineering Design I	1
			EVEN 4105	Engineering Management	1
			EVEN 4306	Solid and Hazardous Waste Fund	3
			EVEN 4386	Air Pollution Control	3
			STAT 4303	Statistical Methods	3
	^Creative Arts	3		^Creative Arts	3
					14
			8th Semester		
			EVEN 4301	Water and Wastewater Treatment	3
			EVEN 4303	Environmental Engineering Design I	3
			EVEN 4304	Water Resources and Adv. Comp Meth	3
			GEOL 4425 or PLSS 3410	Hydrogeology or Principles of Soil Sciences	4
				Engineering Elective	3
					14
	Total Hours Transferred	72		Total Hours Required	129

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

**Industrial Management and Applied Engineering Technology Course Map
South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation**

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
ENGR 1304	Engineering Graphics	3	ITEN 1311	Technical CAD	3
ENGL 1301	Composition	3	ENGL 1301	Rhetoric and Composition	3
MATH 1414	College Algebra	4*	MATH 1314	College Algebra	3
HIST 1301	United States History I	3	HIST 1301	American History	3
ENGR 1201	Introduction to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		14			14
			2nd Semester		
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
MATH 1316	Plane Trigonometry	3	MATH 1316	Trigonometry	3
CHEM 1411	General Chemistry I	4	CHEM 1311	General Inorganic Chemistry I and	3
	See Notes **	3	CHEM 1111	General Inorganic Chemistry I Lab	1
				Free Elective	3
COSC 1301	Introduction to Computing ***	3	ISYS 1301	Personal Computer Apps	3
		16			16
			3rd Semester		
	^Creative Arts	3		^Creative Arts	3
ECON 2301	Principles of Economics I	3	ECON 2301	Principles of Economics I	3
HIST 1302	United States History II	3	HIST 1302	American History	3
GOVT 2305	Federal Government	3	POLS 2301	Govt. & Politics of US	3
PHYS 1401	College Physics I	4	PHYS 1301	College Physics I and	3
		16	PHYS 1101	College Physics I Lab	1
					16
			4th Semester		
	^Cultural Elective	3		^Cultural Elective	3
	^Communication Elective	3		^Communication Elective	3
ACCT 2401	Principles of Financial Accounting	4*	ACCT 2301	Principles of Accounting	3
	Business Elective	3		Business Elective	3
GOVT 2306	Texas Government	3	POLS 2302	Govt. & Politics of Texas	3
		15			15
			5th Semester		
			ITEN 1315	Intro to Manufacturing Processes	3
			ITEN 2301	Industrial Electronics	3
			ITEN 2320	Industrial Materials	3
			ITEN 2330	OSHA for General Industry	3
			ITEN 3323	Cost Estimating	3
		0			15

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			ITEN 3306	Manufacturing Processes	3
			ITEN 3331	Construction Technology	3
			ITEN 3313	Energy Systems	3
			ITEN 3349	Lean Production	3
				Free Elective	3
		0			15
			7th Semester		
				ITEN Adv Elective	3
				ITEN Adv Elective	3
			ITEN 4340	Leadership and Supervision	3
			ITEN 4332	Hazardous Waste and Fire Safety	3
				ITEN Adv Elective or Adv Bus Elective	3
		0			15
			8th Semester		
				ITEN Adv Elective	3
			MGMT 3322	Principles of Management	3
				ITEN Adv Elective or Adv Bus Elective	3
			ITEN 4352	Quality Assurance	3
			ITEN 4336	Industrial Employment Research	3
		0			15
	Total Hours Transferred	61		Total Hours Required	121

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.
- ** Any technical or academic course taught by an instructor with a Master's degree or higher will transfer as Free Elective at TAMUK
- *** Course must be taught by an instructor with a Master's degree or higher to transfer course to TAMUK.

Mechanical Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
ENGR 1304	Engineering Graphics	3	MEEN 1310	Engineering Graphics I	3
ENGL 1301	Composition	3	ENGL 1301	Rhetoric and Composition	3
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
HIST 1301	United States History I	3	HIST 1301	American History	3
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		19			19
			2nd Semester		
			MEEN 1320	Elem Num Method & Eng Prob Solving	3
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
HIST 1302	United States History II	3	HIST 1302	American History	3
		14			17
			3rd Semester		
ENGR 2301	Statics	3	CEEN 2301	Mechanics I	3
GOVT 2305	Federal Government	3	POLS 2301	Govt. & Politics of US	3
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
	^Creative Arts	3		^Creative Arts	3
		16			16
			4th Semester		
			MEEN 2146	Engr. Measurement	1
ENGR 2302	Dynamics	3	MEEN 2302	Mechanics II	3
			MEEN 3344	Materials Science	3
			MEEN 3145	Materials Science Lab	1
			CEEN 3311	Mechanics III	3
			ENGL 2374	Professional Communication	3
MATH 2415	Calculus III	4	MATH 3415	Calculus III	4
		7			18
			5th Semester		
			MEEN 3347	Thermodynamics	3
			MEEN 3349	Fund. Manufacturing Processes	3
			MEEN 3352	Kinematic Analysis of Machines	3
			MEEN 3392	Fluid Mechanics	3
	^Language/Philosophy/Culture	3		^Language/Philosophy/Culture	3
		3			15

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			MEEN 3348	Heat Transfer	3
			MEEN 3350	Design Machine Elements	3
			CEEN 3317	Engineering Economy	3
			EEEN 3331	Circuits/Electromagnetic Devices	3
			MEEN 4341	Applied Thermodynamics	3
			MEEN 3360	Engineering Design and Simulation	3
					18
			7th Semester		
			MEEN 4131	Mechanical Engineering Lab	1
			MEEN 4263	ME Design Project I	2
			MEEN 4344	Control of Systems	3
			MEEN 4351	Machine Design	3
GOVT 2306	Texas Government	3	POLS 2302	Government & Politics of Texas	3
				Engineering Elective	3
					15
			8th Semester		
			MEEN 4264	ME Design Projects II	2
				Engineering Elective	3
				Engineering Elective	3
				Math Elective	3
	^Social/Behavioral	3		^Social/Behavioral	3
					14
	Total Hours Transferred	65		Total Hours Required	132

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.

Natural Gas Engineering Course Map

South Texas College (STC) and Texas A&M University-Kingsville (TAMUK) Articulation

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			1st Semester		
CHEM 1411	General Chemistry I	4	CHEM 1311 CHEM 1111	General Inorganic Chemistry I and General Inorganic Chemistry I Lab	3 1
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4	MATH 2413	Calculus I	4
HIST 1301	United States History I	3	HIST 1301	American History	3
ENGR 1201	Intro to Engineering	2	GEEN 1201	Learning in Global Context I and II (UNIV 1101/1102)	2
		16			16
			2nd Semester		
ENGL 1302	Composition II Rhetoric	3	ENGL 1302	Rhetoric and Composition	3
PHYS 2425	University Physics I	4	PHYS 2325 PHYS 2125	University Physics I and University Physics I Lab	3 1
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
CHEM 1412	General Chemistry II	4	CHEM 1312 CHEM 1112	General Inorganic Chemistry II and General Inorganic Chemistry II Lab	3 1
		15			15
			3rd Semester		
MATH 2420	Differential Equations	*4	MATH 3320	Differential Equations	3
CHEM 2423	Organic Chemistry I	4	CHEM 3323 CHEM 3123	Organic Chemistry I and Organic Chemistry I Lab	3 1
GEOL 1403	Physical Geology	4	GEOL 1303 GEOL 1103	Physical Geology Physical Geology Lab	3 1
HIST 1302	United States History II	3	HIST 1302	American History	3
	^Language/Philosophy and Culture	3		^Language/Philosophy and Culture	3
		17			17
			4th Semester		
ENGR 2303	Statics and Dynamics	3	MEEN 2355	Statics and Dynamics of Rigid Bodies	3
PHYS 2426	University Physics II	4	PHYS 2326 PHYS 2126	University Physics II and University Physics II Lab	3 1
			GEOL 4307 GEOL 4107	Applied Geology Applied Geology Lab	3 1
GOVT 2305	Federal Government	3	POLS 2301	Government & Politics of the US	3
	^Creative Arts	3		^Creative Arts	3
		13			17
			5th Semester		
GOVT 2306	Texas Government	3	POLS 2302	Government & Politics of Texas	3
			CEEN 3311	Strength of Materials	3
			MEEN 3347	Chemical Engr. Thermodynamics I	3
			NGEN 3392	Fluid Transport Phenomena	3
			NGEN 3322	Fund. of Reservoir Engineering	3
		3			15

STC Course No.	Course Title	Hrs	TAMUK Course No.	Course Title	Hrs
			6th Semester		
			CHEN 3310	Heat Transfer Phenomena	3
			CHEN 3321	Process Simulation	3
			NGEN 3393	Natural Gas Drilling Engineering	3
				Technical Elective	2
	^Communication	3		^Communication	3
					14
			7th Semester		
			CHEN 4389	Mass Transfer Phenomena	3
			NGEN 4375	Natural Gas Distribution	3
			NGEN 4396	Natural Gas Production, Evaluation and Testing	3
			STAT 4303	Statistical Methods	3
	^Social/Behavior Science	3		^Social/Behavior Science	3
					15
			8th Semester		
			NGEN 4383	Natural Gas Processes	3
			NGEN 4279	Unit Operations Lab I	2
			NGEN 4478	Natural Gas & Hydrocarbon Measurement	4
			NGEN 4387	Seismic Interp. & Well Logging	3
			NGEN 4398	Capstone Design Project	3
					15
	Total Hours Transferred	70		Total Hours Required	124

Notes:

- * STC students will receive credits up to the credit hours for equivalent TAMUK courses.