Electrical Engineering

ASSOCIATE OF SCIENCE DEGREE

Faculty Advisors: Jon Armel, Jared Abwawo

TCC's Associate of Science in Computer and Electrical Engineering Degree is a state recognized Major Related Program (MRP) designed to provide a pathway for students who plan to transfer to a Bachelor of Science degree program in Computer Engineering or Electrical Engineering. After completing the degree courses, the student must apply to graduate with the AS MRP degree. This MRP degree is generally the best fit for Electrical Engineering majors, but some may be advised into a general AS-T2. Upon completion of this degree, students will be able to transfer to most four-year colleges and universities as juniors. Entry into many engineering programs is competitive. Completion of this degree does not guarantee admission into a specific engineering program. Courses in this pathway are relevant for multiple majors, so a course may apply to one particular major, but not another. Students should work with advisors at TCC and their university advisors to make sure that all entry requirements are met. Students should check with their transfer institution for admission requirements, including overall minimum GPA, a higher GPA in a selected subset of course, or a specific minimum grade in one or more courses such as math or English. Admission deadlines for transfer institutions vary and students are required to meet the transfer admission deadline of their intended transfer institution. Students are encouraged to enroll in math and science sequence courses at a single institution and, if possible, not break up sequenced courses between institutions.

Preparation: While in high school, students should pursue all of the available courses in mathematics, chemistry, biology, computer programming and physics.

Academic Plan: Students should meet with an engineering advisor as soon as they are admitted. Many courses have prerequisites, are offered only once or twice a year and are sequential. Careful selection of classes each quarter is necessary to complete the program without delay. The following schedule is intended as a sample academic plan. It is not the only method or even the preferred method to complete the degree. Each student will have an individualized academic plan based on preparation level, start quarter, full time versus part-time status, major and intended university for transfer. Check current year's planned course offerings.

SAMPLE SPECIALIZATION DEGREE MAP – Computer Engineering

Pre-engineering Year

Fall	Winter	Spring	Summer
MATH& 141	MATH& 142	MATH& 151	
MATH 041	ENGL& 101	CHEM& 140	
COL 101	WRITE 95	CS 120	
	ENGR& 104		

First Year

Fall	Winter	Spring	Summer
MATH& 152	MATH& 153	MATH& 254	
CHEM& 161	ART& 100	PHYS& 221	
CS 142	CS 143	ENGL& 235	

Second Year

Fall	Winter	Spring	Summer
MATH 220	PHYS& 223	ENGR& 204	
PHYS& 222	ENGR& 215	MATH 238	
ENGR& 214	ECON& 202	ENGR& 224	

This degree requires 90 credit hours. Students may need to take additional prerequisite courses. See catalog for prerequisite information. The Humanities and Social Science courses must total 15 credits taken from the distribution course lists including at least one course from the multicultural list. Engr& 104 is a required Social Science course. Engr& 114 is a recommended Humanities course. (It may be taken as a Humanities course or as a Specialization course, not both.) While more than one class may be acceptable for the Associate of Science degree, four-year institutions may require a specific class for a specific engineering major. Admission to some university programs will require more the minimum courses. Financial aid recipients can receive aid for up to 125% of the required college level credits to complete the program. This includes college level pre-requisites. Detailed information is available from the Financial Aid Office.

TACOMA COMMUNITY COLLEGE

Associate of Science in
Computer and Electrical Engineering

Degree Completion Worksheet *(Not an official evaluation document)*

Advisor: NAME:_____SID:_____Date:_____

BASIC REQUIREMENTS (15 credits)				
Communication Skills *- 5 credits*	1. **ENGL& 101**	**GR**	**CR** **5**	
Quantitative Skills *- 10 credits*	1. **MATH& 151**		**5**	
	2. **MATH& 152**		**5**	
HUMANITIES AND SOCIAL SERVICE DISTRIBUTION REQUIREMENTS (15 credits)				
Humanities & Social Sciences *- 15 credits Economics and Engr& 104 recommended. At least 5 credits must be from a multicultural course.*	1.			• 5 credits Humanities • 5 credits Social Sciences • 5 additional credits Humanities or Social Sciences
	2.			
	3.			
SPECIALIZATION COURSES (48 CREDITS)				
Engineering & CS *- 11 credits*	1. **CS 142**		**5**	
	2. **ENGR& 204**		**6**	
Physics *- 18 credits*	3. **PHYS& 221**		**6**	
	4. **PHYS& 222**		**6**	
	5. **PHYS& 223**		**6**	
General Chemistry *- 5 credits*	1. **CHEM& 161**		**5**	
Additional Math *- 15 credits*	1. **MATH& 153**		**5**	
	2. **MATH 220**		**5**	
	3. **MATH 238**		**5**	
ADDITIONAL SPECIALIZATION COURSES (25 credits)				
ENGR& 104 may be taken either to meet Social Sciences distribution requirement or to meet additional specialization course requirements, but not both.	1.			• Select a minimum of 5 of the following courses as appropriate for intended major and transfer institution: BIOL& 221, CS 143, CHEM& 162, MATH& 254, ENGR& 104, 214, 215, 224, ENGL& 235, ENGR 240
	2.			
	3.			
	4.			
	5.			
TOTAL COLLEGE LEVEL CREDITS EARNED TOWARD THE DEGREE:				□ **At least 5 credits applied to the degree are from an approved multicultural course.**
104 credit hours are listed in the degree. 30 additional credits are required to earn a second degree.				

To earn the Associate of Science degree, student must have earned at least 30 applicable credits at TCC, have a cumulative GPA of 2.00 in all coursework applied to the degree, and have a cumulative GPA of 2.00 in all TCC college-level courses.

FALL	WINTER	SPRING	SUMMER