

Program Map: Computer Science Technology
Engineering Technology Department, College of Science and Technology

Name: _____ **SID:** _____ **Advisor:** _____
Start Date: _____ **Catalog Date:** _____ **Expected Graduation Date:** _____

	Fall Courses			Spring Courses			Notes
	Course	Name	Hours	Course	Name	Hours	
Freshman	ENGL 1101* Core Area A	Composition I Pre-requisite: None	3	ENGL 1102* Core Area A	Composition II Pre-requisite: ENGL 1101	3	*A grade of C or better must be earned for this course
	MATH 1113* Core Area A	Pre-Calculus Pre-requisite: MATH 1111	3	MATH 2101* Area F	Calculus I Pre-requisite: MATH 1113	4	Accumulate minimum of 30 semester hours in your Freshmen Year.
	HUMN 1201 Core Area B	Critical Thinking & Communication Pre-requisite: None	3	PHYS 1111K* Area D Lab	Introductory Physics I Pre-requisite: MATH 1113	4	
	COST 1103 Area F	COST First Year Experience Pre-requisite: None	2	CSCI 1302* Area F	Computer Science II Pre-requisite: CSCI 1301	4	
	CSCI 1130 Area D (non-lab)	Computer & its Applications Pre-requisite: None	3				
	CSCI 1301* Area F	Computer Science I Pre-requisite: MATH 1111	3				
Fall Milestones			Total	Spring Milestones			Total
Students must take MATH 1113 and CSCI 1301 to prevent delay in graduation			17				15

	Fall Courses			Spring Courses			Notes
	Course	Name	Hours	Course	Name	Hours	
Sophomore	MATH 2111* Major Math Core	Calculus II Pre-requisite: MATH 2101	4	MATH 2301* Area F	Discrete Mathematics Pre-requisite: MATH 1113	3	*A grade of C or better must be earned for this course
	PHYS 1112K* Area D Lab	Introductory Physics II Pre-requisite: PHYS 1111K	4	CSCI Option*	CSCI Option – Section I Pre-requisite: Varies	4	Accumulate minimum of 60 semester hours in your Sophomore Year.
	ELET 3101K* Major ENGG Tech Core	Electric Circuit I Pre-requisite: MATH 1113	4	CSCI 3000* Major CSCI Core	Data Structure & Algorithm Design Pre-requisite: CSCI 1302	3	
	CSCI 2231K* Area F	Introduction to UNIX Pre-requisite: CSCI 1301	3	CSCI Option*	CSCI Option – Section I Pre-requisite: Varies	3	
				ENGT 2101K* Major Engg Tech Core	Computer Graphics Pre-requisite: MATH 1113	3	
Fall Milestones			Total	Spring Milestones			Total
Students must take ELET 3101K to prevent delay in graduation			15	Students must take CSCI 3000 to prevent delay in graduation			16

	Fall Courses			Spring Courses			Notes
	Course	Name	Hours	Course	Name	Hours	
Junior	CSCI 3385K* Major CSCI Core	Computer Network & Design Pre-requisite: CSCI 1301 or CSCI 1371	3	CSCI 4310* Major CSCI Core	Compiler Construction Pre-requisite: CSCI 3000	3	*A grade of C or better must be earned for this course
	Major*	CSCI OPTION – Section I Pre-requisite: varies	4	Major*	Engineering Technology Option-Section I Pre-requisite: varies	4	Accumulate minimum of 90 semester hours in your Junior Year.
	ELET 3301K* Major ENGG Tech Core	Digital System I Pre-requisite: ELET 3101K	4	Core Area C Option	Pre-requisite: None	3	
	Core Area C Option	Pre-requisite: None	3	Major*	CSCI Option – Section II Pre-requisite: Varies	3	
				Major*	Engineering Technology Option-Section II Pre-requisite: Varies	3	
Fall Milestones			Total	Spring Milestones			Total
Students must take ELET 3301K to prevent delay in graduation.			14				16

	Fall Courses			Spring Courses			Notes
	Course	Name	Hours	Course	Name	Hours	
Senior	CSCI 4110* Major CSCI Core	Operating System Pre-requisite: CSCI 3000	3	CSCI 4210* Major CSCI Core	Database Management Pre-requisite: CSCI 3000	3	*A grade of C or better must be earned for this course
	Major*	Engineering Technology Option-Section I Pre-requisite: Varies	4	Major*	MATH Elective Pre-requisite: Varies	3	Does this Degree Program Require a Minor? <u>No</u>
	Area E Social Sci. Option	Pre-requisite: Varies	3	AFRS 1501 Core Area B	Survey African American History Pre-requisite: None	2	Total Hours Required for this Degree Program: <u>124</u>
	POLS 1101 Core Area E	American Government Pre-requisite: None	3	Area E Social Sci. Option	Pre-requisite: None	3	
	ELET 3411K* Major ENGG Tech Core	Microcontrollers Pre-requisite: ELET 3301K	4	HIST 2111 or 2112 Core Area E	U.S. History Pre-requisite: None	3	
Fall Milestones			Total	Spring Milestones			Total
			17				14

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Core Curriculum (Programmed Preferred Options in Bold)

- Area B – Institutional Options 5 hrs
- i. AFRS 1501 Survey of African-American Experience 2 hrs
 - ii. HUMN 1201 Critical Thinking & Communication 3 hrs
- Area C – Humanities/Fine Arts, and Ethics 6 hrs,
1. Select one of the following:
 - i. ENGL 2111 World Literature I 3 hrs
 - ii. ENGL 2112 World Literature II 3 hrs
 - iii. ENGL 2121 British Literature I 3 hrs
 - iv. ENGL 2122 British Literature II 3 hrs
 - v. ENGL 2131 American Literature I 3 hrs
 - vi. ENGL 2132 American Literature II 3 hrs
 - vii. ENGL 2222 African American Literature 3 hrs
 - viii. PHIL 2010 Introduction to Philosophy 3 hrs
 - ix. PHIL 2030 Introduction to Ethics 3 hrs
 2. Select one of the following:
 - i. ARTS 1101 Introduction to Visual Art 3 hrs
 - ii. DNCE 2010 Dance Appreciation 3 hrs
 - iii. ENGL 2521 Introduction to Film 3 hrs
 - iv. HUMN 2011 Humanities 3 hrs
 - v. MUSC 1101 Introduction to Music 3 hrs
 - vi. THEA 2101 Introduction to Theatre 3 hrs
- Area D – Natural Sciences, Math & Technology 10 hrs
1. Select one of the following:
 - i. BIOL 1107 Principles of Biology I 3 hrs
 - ii. BIOL 1108 Principles of Biology II 3 hrs
 - iii. CHEM 1211 Principles of Chemistry I 3 hrs
 - iv. CHEM 1212 Principles of Chemistry II 3 hrs
 - v. CISM 1130 Computer Applications 3 hrs
 - vi. **CSCI 1130 Computer Applications 3 hrs**
 - vii. CSCI 1301 Computer Science I 3 hrs
 - viii. ENVS 1140 Environmental Issues 3 hrs
 2. Select two of the following lab sciences in sequence:
 - i. BIOL 1107/1107L Principles of Biology I 4 hrs
 - ii. BIOL 1108/1108L Principles of Biology II 4 hrs
 - iii. CHEM 1211/1211L Principles of Chemistry 4 hrs
 - iv. CHEM 1212/1212L Principles of Chemistry 4 hrs
 - v. **PHYS 1111K Introductory Physics I 4 hrs**
 - vi. **PHYS 1112K Introductory Physics II 4 hrs**
 - vii. **PHYS 2211K Principles of Physics I 4 hrs**
 - viii. **PHYS 2212K Principles of Physics II 4 hrs**
- Area E – Social Science 12 hrs
- i. POLS 1101 American Government 3 hrs
 2. Select one of the following:
 - i. HIST 2111 U.S. History to the Post-Civil War Period 3 hrs
 - ii. HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs
 3. Select two of the following:
 - i. AFRS 2000 Introduction to Africana Studies 3 hrs
 - ii. ANTH 1101 Introduction to Anthropology 3 hrs
 - iii. ECON 2105 Principles of Macro-Economics 3 hrs
 - iv. GEOG 1101 Introduction to Human Geography 3 hrs
 - v. HIST 1111 World Hist to Early Modern Times 3 hrs
 - vi. HIST 1112 World History Early Modern Times to Pres 3 hrs
 - vii. POLS 2401 Global Issues 3 hrs
 - viii. PSYC 1101 Intro to General Psychology 3 hrs
 - ix. PSYC 2103 Human Growth & Development 3 hrs
 - x. SOCI 1101 Introduction to Sociology 3 hrs
 - xi. SOCI 1160 Social Problems 3 hrs

CSCI Options: (13-hours)

Section I - Select 10 hours from:

CSCI 1610	Programming in Java	4 hrs
CSCI 2215	Perl Scripting	4 hrs
CSCI 3102	Visual Basic	3 hrs
CSCI 3210	Advanced Java	3 hrs
CSCI 3414	Software Engineering	3 hrs
CSCI 3800	Computer Architecture	3 hrs

Section II - Select 3 hours from:

CSCI 4410	Web Based Programming	3 hrs
CSCI 4510	Artificial Intelligence	3 hrs

Engineering Technology Option: (12 hrs)

Section I - Select 8 hours from:

ELET 3111K	Electrical Circuit II	4 hrs
ELET 3201K	Electronics I	4 hrs
ELET 3211K	Electronics II	4 hrs
ELET 3311K	Digital Systems II	4 hrs
ELET 3401K	Microcomputer Interfacing	4 hrs
ELET 35011K	Control Systems	4 hrs
ELET 3511K	Electrical Machinery	4 hrs

Section II - Select 4 hours from:

ELET 3701K	Data Acquisition System	4 hrs
ELET 4101K	Programmable Logic Controller	4 hrs
ELET 4401K	Industrial Electronics	4 hrs
ELET 4611K	Fiber Optics	4 hrs
ELET 4621K	Digital Communications	4 hrs
ENGT 3301	Statics or ENGR 2201	3 hrs
ENGT 3301	Quality Control	3 hrs
ENGT 3701	Engineering Economy	3 hrs

Math Electives Select (3 hrs)

Mathematics Elective (Upper level 3000-4000 course)

Distinctive Courses/Descriptions

Computer Science Technology

The Computer Science Technology core course work includes:

Windows Programming with emphasis on windows API (Application Programming Interface) using C#, Visual Basic and Java.

Scripting Programming with emphasis on PERL, UNIX (Shell Programming) and CGI Scripts.

Web Programming with emphasis on web API and databases using C#, and Visual Basic.

Software Development and Algorithm Design with emphasis on OOP (Object-Oriented Programming) and various programming languages (ex: JAVA, C#, C++).

Databases with emphasis on the analysis and design to implement databases using SQL Server, and MySQL applications.