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

Name: **SID:**   **Advisor:**

Start Date: **Catalog Date:**   **Expected Graduation Date:**

Freshman

Fall Courses			Spring Courses			Notes
Course	**Name**	**Hours**	**Course**	**Name**	**Hours**	
ENGL 1101* Area C	Composition I Pre-requisite: None	3	ENGL 1102* Area C	Composition II Pre-requisite: ENGL 1101	3	*A grade of C or better must be earned for this course
MATH 1113* Area M	Pre-Calculus Pre-requisite: MATH 1111	3	MATH 2101* Field of Study Area	Calculus I Pre-requisite: MATH 1113	4	
HUMN 1201 Area I	Critical Thinking & Communication Pre-requisite: None	3	PHYS 1111K* Area T Lab	Introductory Physics I Pre-requisite: MATH 1113	4	Accumulate minimum of 30 semester hours in your Freshmen Year.
COST 1103 Field of Study Area	COST First Year Experience Pre-requisite: None	2	CSCI 1302* Field of Study Area	Computer Science II Pre-requisite: CSCI 1301	4	
CSCI 1130 Area T	Computer & its Applications Pre-requisite: None	3				
CSCI 1301* Field of Study Area	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	

Sophomore

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

Junior

Fall Courses			Spring Courses			Notes
Course	**Name**	**Hours**	**Course**	**Name**	**Hours**	
CSCI 3385K* /CILS 3325 Major CSCI Core	Computer Network & Design/ Data Comm. & Comp. Network 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	Area A Option	Pre-requisite: None	3	Apply for graduation.
Area A 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	

Senior

Fall Courses			Spring Courses			Notes
Course	**Name**	**Hours**	**Course**	**Name**	**Hours**	
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	ENGT 4401* Major CSCI Core	Senior Project Pre-requisite: Varies	3	
Area S Option	Pre-requisite: Varies	3	AFRS 1501 Area I	Survey African American History Pre-requisite: None	2	Does this Degree Program Require a Minor? No
POLS 1101 Area P	American Government Pre-requisite: None	3	Area S Option	Pre-requisite: None	3	Total Hours Required for this Degree Program: 124
ELET 3411K* Major ENGG Tech Core	Microcontrollers Pre-requisite: ELET 3301K	4	HIST 2111 or 2112 Area P	U.S. History Pre-requisite: None	3	
Fall Milestones		**Total**	**Spring Milestones**		**Total**	
		17			14	

Core Curriculum (Programmed Preferred Options in Bold)

Area I – Institutional Options 5 hrs
- i. AFRS 1501 Survey of African-American Experience 2 hrs
- ii. HUMN 1201 Critical Thinking & Communication 3 hrs

Area M – Mathematics and Quantitative Skills 3 hrs.
- i. MATH 1001 Quantitative Reasoning 3 hrs.
- ii. MATH 1111 College Algebra 3 hrs.
- iii. MATH 1401 Elementary Statistics 3 hrs.
- **iv. MATH 1113 Pre-Calculus 3 hrs.**

Area P – Social Science and U.S History 6 hrs
- i. POLS 1101 American Government 3 hrs
  Select one of the following:
- ii. HIST 2111 U.S. History to the Post-Civil War Period 3 hrs
- iii. HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs

Area A – Humanities/Fine Arts, and Ethics 6 hrs,
  Select two 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 2140 Introduction to African American Literature 3 hrs.
- viii. ENGL 2521 Introduction to Film 3 hrs.
- ix. ARTS 1101 Introduction to Visual Art 3 hrs.
- x. HUMN 2011 Humanities 3 hrs.
- xi. MUSC 1101 Introduction to Music 3 hrs.
- xii. THEA 2101 Introduction to Theatre 3 hrs.
- xiii. DNCE 2010 Dance Appreciation 3 hrs.
- xiv. PHIL 2010 Introduction to Philosophy 3 hrs.
- xv. PHIL 2030 Introduction to Ethics 3 hrs.

Area C – Communications in Writing 6 hrs.
- i. ENGL 1101 English Composition I 3 hrs.
- ii. ENGL 1102 English Composition II 3 hrs.

Area T – Technology, Mathematics, and Sciences   11 hrs
1. Select one of the following:
   - **i. CSCI 1130 Computer and its Applications 3 hrs.**
   - ii. CSCI 1301 Computer Science I 3 hrs.
   - iii. CILS 1130 Introduction to Computer Applications 3 hrs.
   - iv. ASTR 1000 Introduction to the Universe 3 hrs.
   - v. ISCI 1101 Integrated Science I 3 hrs.
   - vi. BIOL 1103 General Biology 3 hrs.
   - vii. BIOL 1104 Human Biology 3 hrs.
   - viii. DATA 1501 Introduction to Data Science 3 hrs.
   - ix. ENVS 1140 Environmental Issues 3 hrs.
   - x. FSCI 1101 Introduction to Molecular Forensic Science 3 hrs.
   - xi. MATH 1111 College Algebra 3 hrs.
   - xii. MATH 1401 Elementary Statistics 3 hrs.
   - xiii. MATH 1113 Pre-Calculus 3 hrs.
2. Select two of the following lab sciences in sequence:
   - i. BIOL 1103/1103L General Biology 4 hrs.
   - ii. BIOL 1104/1104L Human Biology 4 hrs.
   - iii. CHEM 1101K Introductory Chemistry 4 hrs.
   - iv. ISCI 1111K Integrated Science II 3 hrs.
   - v. MSCI 1501K Introduction to Marine Biology 4 hrs.
   - vi. PHSC 1011K Physical Science 1 4 hrs.
   - vii. PHSC 1012K Physical Science II 4 hrs.
   - **viii. PHYS 1111K Introductory Physics I 4 hrs.**
   - **ix. PHYS 1112K Introductory Physics II 4 hrs.**
   - **x. PHYS 2211K Principles of Physics I 4 hrs.**
   - **xi. PHYS 2212K Principles of Physics II 4 hrs.**
   - xii. BIOL 1107/1107L Principles of Biology I 4 hrs.
   - xiii. BIOL 1108/1108L Principles of Biology II 4 hrs.
   - xiv. CHEM 1211/1211L Principles of Chemistry 4 hrs.
   - xv. CHEM 1212/1212L Principles of Chemistry 4 hrs.

Area S – Social Sciences 6 hrs.
  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 Introduction 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 7 hours from:

Course	Title	Hours
CSCI 1610	Programming in Java	4 hrs
CSCI 2215	Perl Scripting	4 hrs
CSCI 2601K	Info Security Fundamentals	3 hrs
CSCI 3102/	Visual Basic/	3 hrs
CISM 3140	Intro to Programming: Visual Basic	
CSCI 3210	Advanced Java	3 hrs
CSCI 3414	Software Engineering	3 hrs
CSCI 3800	Computer Architecture	3 hrs

Section II - Select 6 hours from:

Course	Title	Hours
CSCI 4010K	Ethical Hacking and Pen. Testing	4 hrs
CSCI 4020K	Mobile Computing	4 hrs
CSCI 4410/	Web Based Programming /	3 hrs
CISM 3232	Web Application Development	
CSCI 4510	Artificial Intelligence	3 hrs
CSCI 4622K	Cyber Forensics	4 hrs

Engineering Technology Option: (12 hrs)

Section I - Select 8 hours from:

Course	Title	Hours
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 3412K	Cybersecurity and embedded systems	4 hrs

Section II - Select 4 hours from:

Course	Title	Hours
ELET 3701K	Data Acquisition System	4 hrs
ELET 4101K	Programmable Logic Controller	4 hrs
ELET 4402K	Network Defense & Counter Measures	4 hrs
ELET 4611K	Fiber Optics	4 hrs
ELET 4621K	Digital Communications	4 hrs

Distinctive Courses/Descriptions

Computer Science Technology

The curriculum in computer science technology is designed for those students who are interested in careers in computer science. This program is flexible so that students may orient the major emphasis toward the software aspect of computer science or to the hardware realm of computer science. This program promotes an extensive interdisciplinary approach to provide students with a sound educational background, one that will make the students quite marketable and thus be prepared for gainful employment in the following areas:

Software Development, Computer Programming, Computer Analyst, End User Support, Web Development, Network Setup and Administration, and Database Administration.