

www.hutchcc.edu/request-info

## **Computer Science - AS**

**Semester-by-Semester Pathway** 

This degree pathway is outlined as a 2 year degree to transfer. This is a suggested semester by semester list of courses based on the average student load. Consult with your advisor for more information. Not all courses are offered each semester.

- (**▶** ) are Systemwide Transfer Courses
- $(\bigstar$  ) are recommended for this degree pathway.

	Semester 1 - Fall					
Complete	Course ID	Course Title	Credit Hours	Notes		
		Systemwide General Edu	ucation Fram	ework		
	English Options (SGE) <sup>010</sup>			6 credits required.		
	Computer Science-Social & Bahavioral Sciences Options-PS100 or SO100 (SGE) 050			6 credits required from two disciplines.		
	Computer Science-Institutional Options (SGE) 070			6 credits required.		
		Additional Pathw	ay Electives			
	CS106 Computer Engineering		4.00	Fall, Spring		
	CS111	Visual Basic Programming	3.00	Fall, Spring, Summer		
		Semester Total:	14.00			

	Semester 2 - Spring					
Complete	Course ID	Course Title	Credit Hours	Notes		
		Systemwide General Edu	ucation Fram	ework		
	English Opti	ons (SGE) <sup>010</sup>	3.00	6 credits required.		
	Computer Science-Mathematics Options-MA111 (SGE) 030		5.00	3 credits required.		
	Computer Science-Arts & Humanities Options- PL103 (SGE) <sup>060</sup>		3.00	6 credits required from two disciplines.		
		Additional Pathw	ay Electives			
CS200 Problem Solving and Programming		4.00	Fall, Spring Prereq: MA106 College Algebra, or Departmental Consent, and CS111 Visual Basic Programming.			
		Semester Total:	15.00			

	Semester 3 - Fall						
Complete Course ID Course Title			Credit Hours	Notes			
		Systemwide General Ed	ucation Fram	ework			
Computer Science-Communications Options-SH101 (SGE) 020			3.00	3 credits required.			

	Computer Science-Natural & Physical Science Lab Options-PY201 (SGE) <sup>040</sup>		5.00	4-5 credits required including a lab.		
1	Computer Science-Institutional Options-MA113 (SGE) <sup>070</sup>		5.00	6 credits required.		
	Additional Pathway Electives					
	CS206 Data Structures and Algorithms			Fall Prereq: CS200 Problem Solving and Programming.		
		Semester Total:	16.00			

	Semester 4 - Spring						
Complete	Course ID Course Title		Credit Hours	Notes			
		Systemwide General Edu	ucation Fram	ework			
	Computer Science-Social & Behavioral Sciences Options-EC101 (SGE) 050  3.00 6 credits required from two disciplines.						
	Computer So 060	cience-Arts & Humanities Options (SGE)	3.00	6 credits required from two disciplines.			
		Additional Pathw	ay Electives				
	CS203	Discrete Structures	3.00	Spring Prereq: MA106 College Algebra with a grade of C or higher.			
	PY202	Engineering Physics II	5.00	Spring Prereq: PY201 Eng Phys I with grade of C or better.			
	MA206	Differential Equations	3.00	Fall, Spring Prereq: MA113 with a grade of C or higher.			
		Semester Total:	17.00				

**Total Credits: 62.00** 

<sup>\*</sup>A minimum of 60 hours is required to earn a HutchCC AA, AS, or AFA degree; however additional credit hours may be outlined on the transfer pathway to meet the program requirements for a 4-year institution.

<sup>\*\*34-35</sup> credit hours fulfill the Systemwide General Education Framework.

<sup>\*\*\*</sup>Semester offerings reflect the current academic year.

	English Options (SGE) <sup>010</sup>					
Course ID	Course Title	Credit Hours	Notes			
EN100	English Composition IB <b>T</b>	3.00	Fall, Spring, Summer Prereq: EN098 Intro to College Writing with a grade of C or higher, or Accuplacer Next Generation Writing Score of 240 to 254, or HS GPA over 2.25, or ACT English Score of 17 to 19.			
EN101	English Composition IA ႃъ	3.00	Fall, Spring, Summer Prereq: HS GPA over 3.0, or Accu NG Writing Score 255+ & Accu NG Reading Score 255+, and ACT Reading Score of 18 or above, or ACT English Score of 18 or above.			
EN102	English Composition II <b>™</b>	3.00	Fall, Spring, Summer Prereq: EN101 English Composition IA with a grade of C or higher, or EN101H English Comp IA with a grade of C or higher, or EN100 English Comp IB with a grade of C or higher.			

Computer Science-Communications Options-SH101 (SGE) <sup>020</sup>						
Course ID	Course Title	Credit Notes				
SH101	Public Speaking T	3.00	Fall, Spring, Summer			

	Computer Science-Mathematics Options-MA111 (SGE) $^{ m 030}$						
Course ID	Course Title	Credit Hours	Notes				
MA111	Analytical Geometry and Calculus I ъ	5.00	Fall, Spring, Summer Prereq: MA107 Plane Trigonometry with a grade of C or higher, or ACT Math Score of 25 to 36, or MA109 Pre-Calculus Math with a grade of C or higher.				

Computer Science-Natural & Physical Science Lab Options-PY201 (SGE) <sup>040</sup>					
Course ID	Course Title	Credit Hours	Notes		
PY201	Engineering Physics I →	5.00	Fall Prereq: MA111 Analytical Geometry & Calculus I, or MA112H Honors Analytical Geometry & Calculus.		

	Computer Science-Social & Bahavioral Sciences Options-PS100 or SO100 (SGE) $^{050}$						
Course ID Course Title Credit Hours Notes			Notes				
PS100	General Psychology <b>™</b>	3.00	Fall, Spring, Summer				
SO100	Fundamentals of Sociology <b>T</b> ▶	3.00	Fall, Spring, Summer				

	Computer Science-Social & Behavioral Sciences Options-EC101 (SGE) <sup>050</sup>						
Course ID	ID Course Title Cre		Notes				
EC101	Microeconomics <b>™</b>	3.00	Fall, Spring, Summer				

Computer Science-Arts & Humanities Options-PL103 (SGE) <sup>060</sup>					
Course ID	Course Title	Credit Hours	Notes		
PL103	Logic and Critical Thinking <b>™</b>	3.00	Fall, Spring		

## Computer Science-Arts & Humanities Options (SGE) $^{060}$

Course ID	Course Title	Credit Hours	Notes
AR101	Art Appreciation <b>™</b>	3.00	Fall, Spring, Summer
AR104	Art History: Paleolithic to Medieval <b>T</b> ▶	3.00	Fall
AR105	Art History: Renaissance to Modern <b>T</b> ▶	3.00	Spring
AR106	Art in the Elementary Classroom T	3.00	Fall, Spring
EN120	Children's Literature ႃъ	3.00	Fall, Spring
EN128	Introduction to Creative Writing →	3.00	Fall, Spring
EN201	Introduction to Literature T	3.00	Fall, Summer Prereq: EN100 English Comp IB with a grade of C or higher, or EN101 English Composition IA with a grade of C or higher.
EN204	American Literature I T	3.00	Fall Prereq: EN101 English Composition IA with a grade of C or higher, or EN100 English Comp IB with a grade of C or higher.
EN205	American Literature II T▶	3.00	Spring Prereq: EN101 English Composition IA with a grade of C or higher, or EN100 English Comp IB with a grade of C or higher.
HI101	American History 1492-1865 <b>™</b>	3.00	Fall, Spring, Summer
HI102	American History 1865-Present <b>T</b> ▶	3.00	Fall, Spring, Summer
HI103	World History to 1600 <b>T</b> ►	3.00	Fall, Spring, Summer
HI104	World History Since 1600 <b>™</b>	3.00	Fall, Spring, Summer
JL101	Introduction to Mass Communications T	3.00	Fall, Spring, Summer
MU101	Music Appreciation <b>T</b> ▶	3.00	Fall, Spring, Summer
MU106	Music Theory I <b>T</b> ▶	3.00	Fall
MU107	Music Theory II <b>T</b> ►	3.00	Spring Prereq: MU106 Music Theory I.
MU201	Music in the Elementary Classroom <b>™</b>	3.00	Fall
RE101	New Testament Literature <b>T</b> ▶	3.00	Spring
RE102	Old Testament Literature <b>™</b>	3.00	Fall
RE106	Introduction to World Religions →	3.00	Spring
SH122	Voice and Diction <b>T</b> ▶	3.00	Fall
SH210	Interpersonal Communication T	3.00	Fall, Spring, Summer
SP101	Elementary Spanish I ъ		Fall, Spring, Summer
SP102	Elementary Spanish II ъ	5.00	Fall, Spring Prereq: SP101 Elementary Spanish I, or Departmental Consent, or SP104 Spanish II.
SP105	Elementary Spanish III T	5.00	Prereq: SP102 Spanish II.
TH115	Theatre Appreciation <b>™</b>	3.00	Fall, Spring, Summer

Computer Science-Institutional Options (SGE) 070				
Course ID	Course Title	Credit Hours	Notes	
AR101	Art Appreciation ႃъ	3.00	Fall, Spring, Summer	
AR104	Art History: Paleolithic to Medieval ₮	3.00	Fall	
AR105	Art History: Renaissance to Modern ъ	3.00	Spring	
AR106	Art in the Elementary Classroom T	3.00	Fall, Spring	
AR110	Drawing I T	3.00	Fall	
AR122	2-D Design T▶	3.00	Fall	
BI101	General Biology <b>T</b> ▶	4.00	Fall, Spring, Summer	
BI102	Ecology of Environmental Problems <b>₮</b>	3.00	Spring	

BI103	Human Anatomy and Physiology <b>T</b> ▶	6.00	Fall, Spring, Summer Prereq: BI100 or BI101 or BI104 or BI105 or BI112 w/Grade of C.
BI104	Biology I T▶	5.00	Fall, Spring Prereq: CH101 General Chemistry, or CH105 Chemistry I with a C or Higher.
BI105	Biology II T▶	5.00	Spring Prereq: BI101 General Biology, or Departmental Consent, or BI104 Biology I.
BI107	Human Anatomy and Physiology I <b>T</b> ▶	4.00	Fall, Spring
BI108	Human Anatomy and Physiology II <b>™</b>	4.00	Fall, Spring Prereq: BI107 Human Anatomy and Physiology I.
BI112	General Microbiology <b>™</b>	4.00	Fall, Spring, Summer Prereq: (BI101,BI103,BI104,BI105)BI107 is not a valid prereq code.
BU101	Accounting I ₁▶	3.00	Fall, Spring, Summer
BU102	Accounting II T•	3.00	Fall, Spring, Summer Prereq: BU101 Accounting I with a grade of C or better, or BU101H Honors Accounting I with a Grade of C or Higher, or BA101 Accounting with a grade of C or better.
BU105	Introduction to Business T	3.00	Fall, Spring, Summer
BU107	Personal Finance <b>T</b> ▶	3.00	Fall, Spring, Summer
BU109	Business Communications T	3.00	Fall, Spring, Summer
BU118	Introduction to Leadership <b>T</b> ►	3.00	Fall, Spring
BU201	Managerial Accounting <b>™</b>	3.00	Fall, Spring, Summer Prereq: BU102 with a C or higher or BA102 with a C or higher.
BU202	Marketing ₁▶	3.00	Fall, Spring
BU203	Management <b>™</b>	3.00	Fall, Spring, Summer
BU205	Business Law I T	3.00	Fall, Spring
CC101	Introduction to Early Childhood Education T	3.00	Fall, Spring
CC105	Infant and Toddler Development T	3.00	
CH101	General Chemistry T	5.00	Fall, Spring, Summer Prereq: MA106 College Algebra, or MA117 Contemporary Math, or MA108 Elements of Statistics.
CH105	Chemistry I <b>T</b> ▶		Accuplacer NextGen QuantReason, Alg, Stats Score 263 or Above, or Accuplacer Math Score of 81+.
CH106	Chemistry II →	5.00	Spring Prereq: CH105 Chemistry I with a C or Higher.
CH108	Principles of Organic and Biochemistry T	5.00	Fall Prereq: CH105 Chemistry I, or Departmental Consent.
CH108L	Principles of Organic & Biochemistry Lab	0.00	Fall Prereq: CH105 Chemistry I, or Departmental Consent.
EC100	Macroeconomics <b>T</b> ►	3.00	Fall, Spring, Summer
ED201	Introduction to Education T	3.00	Fall, Spring Prereq: a GPA of 2.5 or higher, and PS100 General Psychology.
ED201L	Introduction to Education Practicum T	1.00	Fall, Spring Prereq: a GPA of 2.5 or higher, and PS100 General Psychology.
ED205	Educating Exceptional Students T	3.00	Fall, Spring Prereq: ED201 Introduction to Education with a grade of C or higher.
ED206	Technology for Teachers <b>™</b>	3.00	Fall, Spring
ED207	Elementary School PE & Health T	3.00	Spring
EN120	Children's Literature <b>T</b> ►	3.00	Fall, Spring
EN128	Introduction to Creative Writing <b>™</b>	3.00	Fall, Spring
EN201	Introduction to Literature ъ	3.00	Fall, Summer Prereq: EN100 English Comp IB with a grade of C or higher, or EN101 English Composition IA with a grade of C or higher.
EN204	American Literature I T	3.00	Fall Prereq: EN101 English Composition IA with a grade of C or higher, or EN100 English Comp IB with a grade of C or higher.
EN205	American Literature II T	1	Spring

			Prereq: EN101 English Composition IA with a grade of C or higher, or EN100 English Comp IB with a grade of C or higher.
GE101	World Geography <b>™</b>	3.00	Fall, Spring, Summer
GO100	American Government T	3.00	Fall, Spring, Summer
GO101	State and Local Government T	3.00	
GO102	International Relations T	3.00	Spring
GO110	Introduction to Political Science <b>™</b>	3.00	Fall
GO132	Comparative Politics <b>™</b>	3.00	
HE202	Nutrition <b>™</b>	3.00	Fall, Spring, Summer
HI101	American History 1492-1865 <b>T</b> ▶	3.00	Fall, Spring, Summer
HI102	American History 1865-Present ₮	3.00	Fall, Spring, Summer
HI103	World History to 1600 Ţ▶	3.00	Fall, Spring, Summer
HI104	World History Since 1600 <b>™</b>	3.00	Fall, Spring, Summer
HR105	Medical Terminology <b>T</b> ▶	3.00	Fall, Spring, Summer
IS104	Microcomputer Applications <b>T</b> ▶	3.00	Fall, Spring, Summer
JL101	Introduction to Mass Communications <b>T</b> ►	3.00	Fall, Spring, Summer
LE101	Introduction to Criminal Justice T	3.00	Fall, Spring
LE205	Criminal Law <b>T</b> ►	3.00	Fall
MA106	College Algebra T▶	3.00	Fall, Spring, Summer Prereq: HS GPA over 3.25, or Accuplacer NextGen QuantReason, Alg,Stats Score 263 or Above, or ACT Math Score of 22 or Higher.
MA107	Plane Trigonometry T	3.00	Fall, Spring, Summer Prereq: MA106 College Algebra with a grade of C or higher, or ACT Math Score of 23 to 36.
MA108	Elements of Statistics T	3.00	Fall, Spring, Summer Prereq: HS GPA over 3.0, or Accuplacer NG QuantReason, Alg, Stats Score 255 or Above, or ACT Math Score of 19 or Higher.
MA110	Calculus <b>T</b> ►	3.00	Fall, Spring, Summer Prereq: MA106 College Algebra with a grade of C or higher, or ACT Math Score of 23 to 36, or MA109 Pre-Calculus Math with a grade of C or higher.
MA117	Contemporary Math T	3.00	Fall, Spring, Summer
MU101	Music Appreciation <b>T</b> ▶	3.00	Fall, Spring, Summer
MU106	Music Theory I <b>T</b> ▶	3.00	Fall
MU107	Music Theory II ႃъ	3.00	Spring Prereq: MU106 Music Theory I.
MU201	Music in the Elementary Classroom <b>T</b> ▶	3.00	Fall
PE105	Personal and Community Health <b>T</b> ▶	3.00	Fall, Spring, Summer
PE106	First Aid and CPR T	2.00	Fall, Spring
PE185	Exercise Physiology <b>T</b> ▶	3.00	Spring
PL101	Introduction to Philosophy ъ	3.00	Fall, Spring, Summer
PL104	Ethics T	3.00	Fall, Spring, Summer
PS100	General Psychology <b>™</b>	3.00	Fall, Spring, Summer
PS102	Human Growth and Development <b>T</b> ▶	3.00	Fall, Spring, Summer Prereq: PS100 General Psychology.
PY102	Weather and Climate	3.00	Spring
PY103	Physical Geology <b>T</b> ▶	3.00	Fall, Spring, Summer
PY104L	Physical Geology Lab T	1.00	Fall, Spring, Summer
PY110	Physical Science <b>T</b> ▶	5.00	Fall, Spring
PY112	General Physics I T▶	5.00	Prereq: MA106 College Algebra or higher math.
PY113	General Physics II Ţ▶		Spring Prereq: PY112 Gen Physics I.
RE101	New Testament Literature <b>T</b>	3.00	Spring

RE102	Old Testament Literature <b>™</b>	3.00	Fall
RE106	Introduction to World Religions <b>™</b>	3.00	Spring
SH122	Voice and Diction <b>T</b> ►	3.00	Fall
SH210	Interpersonal Communication T	3.00	Fall, Spring, Summer
SM180	Basic Sports Medicine <b>T</b> ▶	3.00	Fall, Spring
SO100	Fundamentals of Sociology <b>T</b> ▶	3.00	Fall, Spring, Summer
SO101	Marriage and Family <b>™</b>	3.00	Fall, Spring, Summer
SO106	Introduction to Women's Studies Ţ▶	3.00	Fall, Summer
SO111	Cultural Anthropology <b>T</b>	3.00	Fall, Spring, Summer
SO113	Cultural Diversity <b>™</b>	3.00	Fall, Spring
SO122	Introduction to Social Work T	3.00	Fall
SO201	Social Problems ъ	3.00	Spring, Summer Prereq: SO100 Fundamentals of Sociology.
SP101	Elementary Spanish I ъ	5.00	Fall, Spring, Summer
SP102	Elementary Spanish II ъ	5.00	Fall, Spring Prereq: SP101 Elementary Spanish I, or Departmental Consent, or SP104 Spanish II.
SP105	Elementary Spanish III T		Prereq: SP102 Spanish II.
TH115	Theatre Appreciation <b>T</b> ▶	3.00	Fall, Spring, Summer
TH122	Voice and Diction <b>T</b> ▶	3.00	Fall

Computer Science-Institutional Options-MA113 (SGE) <sup>070</sup>				
Course ID	Course Title	Credit Hours	Notes	
MA113	Analytical Geometry and Calculus II T	5.00	Fall, Spring, Summer Prereq: MA111 with a grade of C or higher.	

## **Program Notes**:

For degree requirements for the Associate of Science, students must complete MA106 College Algebra or higher math course and one lab science. For transfer, it is recommended students complete MA111 Analytical Geometry and Calculus I, MA113 Analytical Geometry and Calculus II, PY112 General Physics I, and PY113 General Physics II. Although the SGE requires 4-5 credit hours of a lecture and lab course in the Natural Science area, a student must complete 9 credit hours of Natural Science & Mathematics courses (with at least 4 hours being a lecture and lab science course) to meet the HutchCC Associate of Science degree requirement.