

ADT IN COMPUTER SCIENCE

This Associate Degree for Transfer (ADT) in Computer Science provides students with an understanding of the concepts and practice of code development and problem solving. The degree prepares students for pre-professional careers and for curriculum at four year institutions leading to a baccalaureate degree in Computer Science. Students who complete this degree will be guaranteed admission with junior status to the California State University system and will be given priority admission to our local CSU campus.

Learning Outcomes

A.S.-Transfer Degree Level Student Learning Outcomes

Students completing the Computer Science A.S.-Transfer Degree will:

1. Create and debug code for given specifications and write appropriate documentation.
2. Create software applications using industry software development tools.
3. Demonstrate a comprehensive understanding of one or more computer programming languages.
4. Communicate effectively orally, in writing and in media.
5. Work collaboratively and ethically in teams on projects.

Requirements

Students receiving this transfer degree must meet the following requirements:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) (<http://catalog.citruscollege.edu/programs-study/graduation-requirements-associate-degree/general-education-requirements-transfer-csu-uc-igetc-option-iii/>) or the California State University General Education - Breadth Requirements (<http://catalog.citruscollege.edu/programs-study/graduation-requirements-associate-degree/general-education-requirements-transfer-csu-csuge-option-ii/>).
 - b. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtainment of a minimum grade point average of 2.0.
3. Meet the 12-unit residency requirement.

ADTs also require that students must earn a "C" (or "P") or better in all courses required for the major or area of emphasis.

Code	Title	Units
CS 225	Object Oriented Programming	3
CS 232	Programming Concepts and Methodology II	3
CS 242	Computer Architecture and Organization	3
CS 252	Discrete Structures	3

Code	Title	Units
BIOL 124	Molecular and Cellular Biology	5
or BIOL 125	Evolution, Ecology & Biodiversity	
MATH 190	Calculus with Analytic Geometry I	5
MATH 191	Calculus with Analytic Geometry II	5
PHYS 201	Physics A: Mechanics	5
Total Units		32

Curriculum Map

2-3-Year Curriculum Map Examples

These maps represent two possible pathways through the program and are only for reference.

*It is highly recommended that you make an appointment (<https://www.citruscollege.edu/stdntsrvcounsel/Pages/ApptSchedule.aspx>) to create a customized education plan that fits your needs.

Note: Co-requisite MATH course (2 units) and/or substitute ENGL 101E (5 units) may be needed based on placement.

2-Year Map:

Course	Title	Units
Fall Term 1		
MATH 190	Calculus with Analytic Geometry I	5
CS 111	Introduction to Programming Concepts and Design	4
COUN 206	Pathways to Careers in STEM	3
ENGL 101 or ENGL 101H	Reading and Composition or Reading and Composition - Honors	4
Units		16
Winter Term 1		
MATH 191	Calculus with Analytic Geometry II	5
ETHN 101 or ETHN 116	Introduction to Ethnic Studies or Introduction to Chicano/Latino Studies	3
Units		8
Spring Term 1		
MATH 210	Calculus with Analytic Geometry III	5
CS 225	Object Oriented Programming	3
PHYS 201 or PHYS 201H	Physics A: Mechanics or Physics A: Mechanics - Honors	5
ENGL 104 or ENGL 104H	Argumentative Writing and Critical Thinking or Argumentative Writing and Critical Thinking - Honors	3
Units		16
Summer Term 1		
CS 232	Programming Concepts and Methodology II	3
SPCH 100 or SPCH 100H or SPCH 101 or SPCH 101H or SPCH 106	Interpersonal Communication or Interpersonal Communication - Honors or Public Address or Public Address - Honors or Small Group Communication	3
Units		6
Fall Term 2		
MATH 211	Differential Equations	5
CS 242	Computer Architecture and Organization	3

Course	Title	Units
ARCH 250	History of Architecture: Prehistory to Mannerism	3
or ARCH 251	or History of Architecture: Baroque to the Present Day	
or ART 100	or Art History - Fundamentals of Global Art History	
or ART 105	or Art History - Topics in Contemporary Art	
or ART 108	or History of Photography	
or ART 110	or Introduction to the Visual Arts	
or ART 199	or Motion Picture Appreciation	
or ART 199H	or Motion Picture Appreciation - Honors	
or DANC 102	or History of Dance	
or MUSE 113	or History of Rock and Roll	
or THEA 101	or Introduction to Theatre Arts	
or THEA 101H	or Introduction to Theatre Arts - Honors	
BIOL 124	Molecular and Cellular Biology	5
or BIOL 125	or Evolution, Ecology & Biodiversity	
Units		16
Winter Term 2		
POLI 103	American Government and Politics	3
or POLI 103H	or American Government and Politics - Honors	
HIST 107	History of the United States before 1877	3
or HIST 107H	or History of the United States before 1877 - Honors	
or HIST 108	or History of the United States since 1877	
or HIST 108H	or History of the United States since 1877 - Honors	
or HIST 160	or History of Women in the United States	
Units		6
Spring Term 2		
MATH 212	Introduction to Linear Algebra	4
CS 252	Discrete Structures	3
PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
or PHYS 203	or Physics C: Waves, Optics & Modern Physics	
ARCH 250	History of Architecture: Prehistory to Mannerism	3
or ARCH 251	or History of Architecture: Baroque to the Present Day	
or ART 100	or Art History - Fundamentals of Global Art History	
or ART 105	or Art History - Topics in Contemporary Art	
or ART 108	or History of Photography	
or ART 110	or Introduction to the Visual Arts	
or ART 199	or Motion Picture Appreciation	
or ART 199H	or Motion Picture Appreciation - Honors	
or DANC 102	or History of Dance	
or ENGL 290	or Ethnic Voices in Film	
or ENGL 293	or Children's Literature	
or ENGL 293H	or Children's Literature - Honors	
or ENGL 298	or Literature of the Bible	
or KIN 166	or American Food And Culture: Global Origins, History, and Current Impacts	
or MUSE 113	or History of Rock and Roll	
or PHIL 101	or Great Religions of the World	
or SOC 130	or Introduction to LGBTQ Studies	
or THEA 101	or Introduction to Theatre Arts	
or THEA 101H	or Introduction to Theatre Arts - Honors	
Units		15
Total Units		83

Note: Course selections may affect total unit value.

3-Year Map:

Course	Title	Units
Fall Term 1		
COUN 206	Pathways to Careers in STEM	3
MATH 175	Pre-Calculus	6
ENGL 101	Reading and Composition	4
or ENGL 101H	or Reading and Composition - Honors	
Units		13
Winter Term 1		
ENGL 104	Argumentative Writing and Critical Thinking	3
or ENGL 104H	or Argumentative Writing and Critical Thinking - Honors	
Units		3
Spring Term 1		
CS 111	Introduction to Programming Concepts and Design	4

Course	Title	Units
MATH 190	Calculus with Analytic Geometry I	5
CHEM 110	Beginning General Chemistry	5
Units		14
Summer Term 1		
ETHN 101	Introduction to Ethnic Studies	3
or ETHN 116	or Introduction to Chicano/Latino Studies	
Units		3
Fall Term 2		
MATH 191	Calculus with Analytic Geometry II	5
CS 225	Object Oriented Programming	3
PHYS 201	Physics A: Mechanics	5
or PHYS 201H	or Physics A: Mechanics - Honors	
Units		13
Winter Term 2		
ANTH 210	Introduction to Cultural Anthropology	3
or ANTH 210H	or Introduction to Cultural Anthropology - Honors	
or ECON 101	or Principles of Macroeconomics	
or ECON 101H	or Principles of Macroeconomics - Honors	
or PSY 101	or Introduction to Psychology	
or PSY 101H	or Introduction to Psychology - Honors	
or SOC 201	or Introduction to Sociology	
or SOC 201H	or Introduction to Sociology - Honors	
Units		3
Spring Term 2		
MATH 210	Calculus with Analytic Geometry III	5
CS 232	Programming Concepts and Methodology II	3
PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
or PHYS 203	or Physics C: Waves, Optics & Modern Physics	
Units		13
Summer Term 2		
ARCH 250	History of Architecture: Prehistory to Mannerism	3
or ARCH 251	or History of Architecture: Baroque to the Present Day	
or ART 100	or Art History - Fundamentals of Global Art History	
or ART 105	or Art History - Topics in Contemporary Art	
or ART 108	or History of Photography	
or ART 110	or Introduction to the Visual Arts	
or ART 199	or Motion Picture Appreciation	
or ART 199H	or Motion Picture Appreciation - Honors	
or DANC 102	or History of Dance	
or MUSE 113	or History of Rock and Roll	
or THEA 101	or Introduction to Theatre Arts	
or THEA 101H	or Introduction to Theatre Arts - Honors	
SPCH 100	Interpersonal Communication	3
or SPCH 100H	or Interpersonal Communication - Honors	
or SPCH 101	or Public Address	
or SPCH 101H	or Public Address - Honors	
or SPCH 106	or Small Group Communication	
Units		6
Fall Term 3		
MATH 211	Differential Equations	5
CS 252	Discrete Structures	3
PHYS 202	Physics B: Thermodynamics and Electromagnetism	5
or PHYS 203	or Physics C: Waves, Optics & Modern Physics	
Units		13
Winter Term 3		
HIST 107	History of the United States before 1877	3
or HIST 107H	or History of the United States before 1877 - Honors	
or HIST 108	or History of the United States since 1877	
or HIST 108H	or History of the United States since 1877 - Honors	
or HIST 160	or History of Women in the United States	

Course	Title	Units
ARCH 250	History of Architecture: Prehistory to Mannerism	3
or ARCH 251	or History of Architecture: Baroque to the Present Day	
or ART 100	or Art History - Fundamentals of Global Art History	
or ART 105	or Art History - Topics in Contemporary Art	
or ART 108	or History of Photography	
or ART 110	or Introduction to the Visual Arts	
or ART 199	or Motion Picture Appreciation	
or ART 199H	or Motion Picture Appreciation - Honors	
or DANC 102	or History of Dance	
or ENGL 290	or Ethnic Voices in Film	
or ENGL 293	or Children's Literature	
or ENGL 293H	or Children's Literature - Honors	
or ENGL 298	or Literature of the Bible	
or KIN 166	or American Food And Culture: Global Origins, History, and Current Impacts	
or MUSE 113	or History of Rock and Roll	
or PHIL 101	or Great Religions of the World	
or SOC 130	or Introduction to LGBTQ Studies	
or THEA 101	or Introduction to Theatre Arts	
or THEA 101H	or Introduction to Theatre Arts - Honors	
Units		6
Spring Term 3		
MATH 212	Introduction to Linear Algebra	4
CS 242	Computer Architecture and Organization	3
BIOL 124	Molecular and Cellular Biology	5
or BIOL 125	or Evolution, Ecology & Biodiversity	
POLI 103	American Government and Politics	3
or POLI 103H	or American Government and Politics - Honors	
Units		15
Total Units		102

Note: Course selections may affect total unit value.

Career Information

Career Opportunities

There are a variety of careers you can do with this major.

To explore more about this major, schedule an appointment ([https://www.citruscollege.edu/stdntsrv/ctcenter/Pages/](https://www.citruscollege.edu/stdntsrv/ctcenter/Pages/ApptSchedule.aspx)ApptSchedule.aspx) with a career counselor.