

Computer Science A.S. (CISS)

This program is intended for students who wish to transfer to a four-year college or university for a bachelor's degree in Computer Science or Computer Information Science. This program is compliant with the Pennsylvania statewide program-to-program articulation agreement which ensures that students who complete the requirements as stated below will have their coursework and credits transfer into a parallel baccalaureate program at participating institutions with full junior standing and without the need for course-by-course equivalency.

Upon successful completion of this program, graduates will be able to:

- transfer to a 4-year college or university for further study.
- apply information literacy skills and use technical vocabulary to communicate effectively.
- demonstrate problem-solving techniques, algorithmic design, and critical thinking.
- use current technologies to program in C++ using structured and object-oriented techniques.
- apply quantitative reasoning to demonstrate college-level mathematical competence.
- participate cooperatively within a team.

Students should consult the catalog of the four-year college or university to which he or she plans to transfer to ensure that degree requirements are being properly met. Transfer information for this program is on file in the Transfer and University Center. For more information, contact an academic advisor or counselor.

Prior Learning Assessment: Previous job training, certificates and work experience that may qualify for college credit (*see academic advisor*).

Gateway Courses: Based on placement testing in reading, writing and math, these prerequisite courses may have to be taken before placement in College English or Mathematics beginning the first semester and concurrently.

RSS 099	Basic Skills Reading	3
RSS 100	Critical Reading	3
ENG 099	Basic Skills Writing	3
ENG 100	Fundamentals of Writing	3
MAT 090	Mathematical Literacy	6
ESL 251	English for Academic Purpose	6

(Required for ESL students only.)

Please note, taking gateway courses will increase your time for completion.

First Semester		Credits
CIS 105	Introduction to Computers and Applications	3
CIS 119	College Survival Bootcamp	1
CIS 155	Introduction to Computer Science–Structured Programming–C++	3.5
ENG 105	Research and Composition	3
MAT 191	Calculus and Analytic Geometry I	4
		14.5
Second Semester		
CIS 225	Computer Organization and Architecture	3
CIS 250	Operating Systems	3
ENG 106	Introduction to Literature	3
MAT 196	Calculus and Analytic Geometry II	4
Elective♦	Laboratory Science	4
		17
Third Semester		
CIS 165	Data Structures–C++	3.5
CIS 255	Database Environment	3.5
Elective ⁺	Social Science	3
Elective♦	Laboratory Science	4
		14
Fourth Semester		
MAT 150	Introduction to Probability and Statistics	
or BUS 150*	Business Statistics	3–3.5
ENG 111	Speech	3
MAT 203	Discrete Mathematics	3
Elective [□]	Humanities	3
Elective ⁺	Social Science	3
		15–15.5
Credit Total		60.5

*Credit will not be given toward graduation requirements for both MAT 150 and BUS 150.

⁺Social Science Electives must be chosen from the following list: ECO 201, ECO 202, PSC 141, PSY 140, PSY 145, PSY 240, PSY 242, SOC 150, SOC 151, SOC 258.

♦Laboratory Science Electives must be taken in course sequence (I and II) from the following list: (BIO 110 and BIO 111), or (BIO 163 and BIO 164), or (CHE 111 and CHE 112), or (PHY 201 and PHY 202), or (PHY 210 and PHY 215).

□Humanities Electives must be selected from the following list: ART 101, ENG 154, 201, 202, 205, 206, 210, 211, FRN 105, 106, GRM 105, 106, HIS 123, HIS 124, HIS 130, HIS 131, MUS 101, PHI 201, 205, SPN 105, 106.