



The State University
of New York

Transfer Path

Discipline: Computer Science

SUNY transfer paths outline the knowledge and skills that are essential for students to complete during their first two years of study for a major in a given discipline. The coursework described below will meet degree requirements at all SUNY campuses offering majors in the above discipline. If you complete this coursework successfully, you will be well-positioned to finish your degree with an additional two years of study at your SUNY transfer college.

Use this transfer path to discover both courses related to your major and general education requirements that will prepare you for transfer. Click on each course to view a course description. Then, to map your first two years of courses, visit [Planning Your Coursework](#).

Lower-Division Major Requirements

It is important for students to have the necessary in-depth coverage of the computer science knowledge and skills outlined in the courses and descriptions below to be ready for their junior level courses. It is recognized that SUNY campuses sequence these topics across their computer science courses in different ways within their academic programs. Therefore, the computer science programming sequence (CS I, CS II, and CS III/Data Structures) in the transfer path should be taken at the same institution prior to transfer. In addition, students should cover the mathematics knowledge and skills outlined in the transfer path within the first two years of full time study.

The contents listed in this section are specifically related to your field of study and are part of the requirements for graduation in your major:

- [Computer Science I](#)
- [Computer Science II](#)
- [Computer Science III/Data Structures](#)
- [Computer Architecture and Organization](#)
- [Calculus I](#)
- [Discrete Mathematics](#)
- Natural Science elective (to satisfy SUNY General Education requirement)

The following courses are recommended (see advising notes):

- [Calculus II](#)
- [Linear Algebra](#)



Advising Notes

1. Students should be advised that the programming languages taught in computer science courses may vary from one SUNY campus to another. Courses identified are guaranteed seamless transfer only if the programming sequence (CS I, CS II, and CS III/Data Structures) are completed at the same institution and students have achieved a sufficient level of mastery in at least one modern, object oriented programming language such as C#, C++, or Java. Students, in consultation with their advisors, should contact their intended transfer campus to learn which programming languages and competencies are expected for upper level coursework and prepare themselves.
2. Some programs require Calculus II and/or Linear Algebra to achieve junior status. Students, in consultation with their advisors, should contact their intended transfer campus for specific mathematics requirements for upper level coursework and complete them.
3. All SUNY computer science students should take at least one natural science course as part of their general education. For students transferring to ABET accredited computer science programs, it is strongly recommended that students take at least two laboratory based natural science courses (preferably as a sequence in Biology, Chemistry, or Physics) prior to transfer. These courses must be courses allowed in the respective science or engineering programs.
4. For articulated courses, differences in credit hours should not matter. For example, if a three credit hour mathematics course at a community college is articulated with a four credit hour course at a four year institution, students are credited with satisfying the four credit hour requirement.

General Education Requirements

General Education courses are related to key academic disciplines and may be outside your field of study. To earn a SUNY bachelor's degree, you must earn 30 credits in at least seven of the following ten skill areas, and demonstrate two competencies. For AS programs in Engineering, students must satisfy five of the following ten skill areas.

Skill Areas:

- Basic Communication (required)
- Mathematics (required)
- American History
- Other World Civilizations
- Foreign Language
- Social Sciences
- Humanities
- The Arts
- Natural Sciences
- Western Civilization

Competencies:

- Critical Thinking (required)
- Information Management (required)

General Education requirements vary by campus and by major. However, if you satisfy the SUNY General Education Requirement (SUNY-GER) area at one campus with a grade of C or higher, you will have met that SUNY-GER area at every other SUNY campus. Visit [Campus Requirements](#) to determine the skill areas required by each campus and the courses available within those areas.

Note: The lower division major requirements outlined in this document will be implemented for SUNY students entering Fall 2016. Check with your campus advisor for more information regarding current requirements.

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