# Software Engineering, Analysis, and Design

## Graduate Certificate in Software Engineering, Analysis, and Design

Software engineering encompasses the design, development, maintenance, testing, and evaluation of the software and systems that make computers or anything containing software work. This certificate program aims to cover these areas in a concise program.

### **Prerequisites**

Applicants should have a bachelor's degree from an accredited institution in a STEM discipline, or have relevant professional experience in computing. Further information can be found in the program's webpage (https://cs.njit.edu/certificate-foundations-cybersecurity/).

### **Related MS Programs**

Students who achieve a GPA of at least 3.0 are assured admission into MS programs (https://computing.njit.edu/graduate-degrees/) offered by the Ying Wu College of Computing. All courses within this Certificate program fulfill the degree requirements for the MS in Software Engineering program (https://cs.njit.edu/ms-software-engineering-ms-se/). For students interested in other MS programs, it is recommended to consult the catalogs (http://catalog.njit.edu/graduate/computing-sciences/#masterstext) to determine which courses fulfill the respective requirements. Current students may also reach out to YWCC advisors (https://computing.njit.edu/academic-advisors-graduate/) for additional information.

### **Degree Requirements**

The Graduate Certificate in Computer Science can be completed by taking four courses (12 credits). The requirements must be satisfied as indicated in the following Course List.

Code	Title	Credits
Core Courses		
Select one or two of the following:		
IS 663	System Analysis and Design	
CS 673	Software Design and Production Methodology	
Electives		
Select two or three of the following:		
IS 661	User Experience Design	
IS 676	Requirement Engineering	
CS 643	Cloud Computing	
CS 683	Software Project Management	
CS 684	Software Testing and Quality Assurance	
CS 685	Software Architecture	