

Software and Security Engineering Master's

Department Information

- **Program Information:**
ndsu.edu/programs/graduate/software-and-security-engineering (<http://ndsu.edu/programs/graduate/software-and-security-engineering/>)
- **Department Web Site:**
ndsu.edu/computer-science (<http://ndsu.edu/computer-science/>)
- **Application Deadline:**
February 1 priority deadline for fall admission; September 1 for spring admission* No summer admission for any Software Engineering Program
- **Credential Offered:**
Master of Science (M.S.)
- **English Proficiency Requirements:**
TOEFL ibt 79; IELTS 6.5; Duolingo 105

Apply Now (https://ndsugrad.my.site.com/Application/TX_SiteLogin/?startURL=/Application/TargetX_Portal__PB)

Code	Title	Credits
Core Courses		12
CSCI 702	Survey of Cybersecurity	
CSCI 706	Data-Driven Security	
CSCI 713	Software Development Processes	
CSCI 716	Software Design	
Additional required courses		5
CSCI 790		
CSCI 848	Empirical Methods in Software Engineering	
Software engineering focus select from:		9
CSCI Courses in the ranges of 611-619 and 711-719		
CSCI 765	Introduction to Database Systems	
Cybersecurity focus - select from:		9
CSCI Courses in range 601-610 excluding 603 and 605		
CSCI Courses in range 701-710, excluding core courses		
CSCI 765	Introduction to Database Systems	
CSCI 773	Foundations of the Digital Enterprise	
Plan A: Master's Thesis		6
CSCI 798	(6 credits)	
Plan B: Master's Paper		6
Other Computer Science or Software Engineering Courses (3 credits)		
CSCI 797	(3 credits)	
Total Credits		32

Additional requirements for Master of Science in Software and Security Engineering:

- Research adviser should be selected by the end of the second semester at NDSU.
- A maximum of two courses (6 credits) at the 600 level.
- Field Experience/Practicum credits do not count.
- Courses on topics that are typically considered to be part of computer science, such as AI, machine learning, software engineering, etc. should be taken in the Computer Science Department. Outside courses (courses without a CSCI prefix) need prior approval by the graduate coordinator and the research advisor and should only be approved if a course with similar content is not already offered by our department. A syllabus might need to be submitted by the student wanting to take a particular course from another department to ensure adequate coverage of computer science content.
- A maximum of 9 credits may be transferred into the program.

Admission and Application Requirements

Graduate School admission and application requirements are found on the Admission Information (<https://catalog.ndsu.edu/past-bulletin-archive/2025-2026/graduate/admission-information/#admissionrequirements>) page.

In addition to the Graduate School admission requirements, the program has the requirements below:

- A B.S. or equivalent degree from an educational institution of recognized standing with at least a 3.0 grade point average on a 4.0 grade point scale. Eighteen semester hours or equivalent in Computer Science from an educational institution of recognized standing, or at least 2 years of full-time professional software engineering experience. Full time professional experience may offset the GPA requirement at the rate of 0.1 in GPA for each 18 months of such experience to a maximum of 0.3 in GPA;
- GRE score is not required for admission. However, a GRE score above the median (50th percentile) for the quantitative reasoning portion is strongly recommended for gaining priority in assistantships.
- Programming skill with one modern higher level programming language, preferably C++, C#, or Java.
- A 3.0 (on a 4.0 scale) GPA in all previous coursework.