Software Engineering / Software and Security Engineering

Department Information

• **Department Chair:**
  Simone Ludwig, Ph.D.

• **Program Coordinator:**
  Changhui Yan, Ph.D.

• **Department Location:**
  258 QBB

• **Department Phone:**
  (701) 231-8562

• **Department Email:**
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• **Department Web Site:**
  ndsu.edu/cs/ ([http://ndsu.edu/cs/](http://ndsu.edu/cs/))

• **Application Deadline:**
  February 1 for fall admission; September 1 for spring admission* No summer admission for any Software Engineering Program

• **Credential Offered:**
  Ph.D., M.S., M.S.E, Certificate

• **Test Requirement:**
  GRE (waived for fall 2022 applicants)

• **English Proficiency Requirements:**
  TOEFL ibt 79; IELTS 6.5; Duolingo 105

In addition to the Graduate College requirements ([http://catalog.ndsu.edu/graduate/admission-information/](http://catalog.ndsu.edu/graduate/admission-information/)), applicants must fulfill the program requirements listed below:

**Software Engineering Certificate**

1. Bachelor of Science (B.S.), or equivalent degree from an educational institution of recognized standing, including 12 semester hours or equivalent of Computer Science or Software Engineering courses from an educational institution of recognized standing, or at least one year full-time professional software engineering experience;
2. Programming skill in a modern higher level programming language, preferably C++, C#, or Java;
3. A 3.0 (on a 4.0 scale) GPA in previous coursework. Conditional admission may be given with a 2.85 or higher GPA and professional experience.

**Master of Software Engineering**

1. Bachelor's level (B.S., B.A., Sc.B., etc.) degree from an educational institution of recognized standing;
2. Ability to design and implement a program consisting of several interacting classes that might total approximately 100 executable statements;
3. International Students require a minimum TOEFL ibT of 79 or an IELTS of 6.5.
4. A 3.0 (on a 4.0 scale) GPA in previous coursework. Conditional admission may be given with a 2.7 or higher GPA and professional experience.

**Master of Science in Software and Security Engineering**

1. Four year or longer 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;
2. Programming skill with one modern higher level programming language, preferably C++, C#, or Java.
3. A 3.0 (on a 4.0 scale) GPA in all previous coursework.

**Doctor of Philosophy in Software and Security Engineering**

1. Four year or longer B.S. or equivalent degree from an educational institution of recognized standing with at least a 3.25 grade point average (GPA) on a 4.0 grade point scale.
a. Significant full-time professional software development experience may offset this GPA requirement at the rate of 0.1 in GPA for each 2 years of such experience to a maximum of 0.4 in GPA.

b. If the applicant has an M.S. or equivalent degree from an educational institution of recognized standing, the GPA in that degree should be at least 3.35 on a 4.0 scale.

c. 18 semester hours or equivalent in Computer Science from an educational institution of recognized standing, or at least 3 years of full-time professional software engineering experience.

2. Programming skill in at least 1 higher level programming language, preferably C++, C#, or Java.