

## The University of Scranton COLLEGE OF ARTS AND SCIENCES

# Master of Science in Software Engineering

## WHY SCRANTON?

### *A University of Scranton MSSE*

Jesuit values. Successful outcomes. You'll find all of this – and more – when you choose The University of Scranton for your Master of Science in software engineering (MSSE) studies. Our dedicated faculty will work alongside you as you pursue a higher level of education at The University of Scranton.

## AT A GLANCE

Designed to develop software professionals who are knowledgeable about and skilled in the application of principles related to the development and maintenance of computer software.

## REAL WORLD RESULTS

### *Filling a Growing Need*

Graduates of the MSSE program have been hired by companies such as New York Times, Tumblr, American Express, Denco Denal and Metlife.

## JESUIT VALUES

- *A strong emphasis on ethics, social justice & environmental responsibility*
- *Corporate social responsibility*
- *Develop well-rounded & thoughtful contributors to society*
- *Dedication to excellence in education & care for the entire person*
- *Highlighting global perspectives*



## ONE-TO-ONE LEARNING

### *Faculty Engagement*

## PERSONAL ATTENTION

- Learn from an incomparable faculty who will challenge and inspire you.
- Learn in small classes with active interactions between the instructor and peers.
- Work with a faculty mentor who will assist with your personal academic planning throughout the program.

## TECHNOLOGY

Students have access to a number of computing platforms, including MS Windows, Linux, and FreeBSD. These resources are networked and accessible from both on and off campus. The Computing Science Department is a subscriber of the Microsoft Imagine Academy program, which offers students a wide range of Microsoft development tools and software such as Visual Studio, .NET framework, SQL Server, and Windows operating systems. Open source systems and tools are extensively used in the program, including Oracle's Java, PHP, Linux, FreeBSD, MySQL, PostgreSQL, Apache and Eclipse.



**CURRICULUM** Programs of Study

**FUNDAMENTAL COURSES:** (12 credits required):

- SE 500:** Mathematics for Software Engineering
- SE 501:** Introduction to Software Development
- SE 504:** Formal Methods & Models
- SE 507:** Requirements Analysis & Software Specification

**ADVANCED COURSES** (18 credits required):

- SE 510:** Principles & Applications of Software Design
- SE 518:** Software Security
- SE 524:** Software Project Management
- Three elective courses (9 credits)

**THESIS PROJECT** (6 credits required):

- SE 598:** Project Analysis & Design
- SE 599:** Project Implementation & Evaluation



**GETTING  
RECOGNIZED**

Results, reputation & ethics  
drive our education.

**Top 10  
“Best Colleges”  
for 25 consecutive years**  
— U.S. News & World Report

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**Among the  
“10 top master’s  
universities in the North”**  
— U.S. News & World Report



**WHAT NEXT? HOW TO PROCEED FROM HERE**

Applicants who have questions about our nondiscrimination policy, or have concerns about discrimination on the basis of sex should contact: Title IX Coordinator, c/o • The Office of Equity & Diversity • Institute of Molecular Biology & Medicine, Rm 315 • TitleIX@scranton.edu • 570.941.6645

**ADMISSION**

**Admission Criteria for Acceptance**

Admission to the MSSE program is based on a combination of indicators including previous academic performance with the completion of a bachelor’s degree in computer science or a related field and three professional letters of recommendation.

**SCHEDULE A VISIT**

Personal appointments with an Admissions representative are offered Monday through Friday and can provide insight to the application and admission process. Sign up online to register for your visit at: [scranton.edu/gradvisit](http://scranton.edu/gradvisit)

**APPLY NOW**

We welcome applications on a rolling basis for all available terms. To apply to the MSSE program, or for additional application and admission information, please visit: [scranton.edu/gradapply](http://scranton.edu/gradapply)

**CONTACT THE PROGRAM DIRECTOR**

You are encouraged to contact the Program Director, Dr. Yaodong Bi, for information on the academic components of the Software Engineering program. To contact Dr. Bi, please email [yaodong.bi@scranton.edu](mailto:yaodong.bi@scranton.edu) or call **570.941.7774**.

**DO MORE**

**Graduate Assistantships**

Graduate assistantships are available on a competitive basis to graduate students who seek to strengthen the breadth and quality of the educational experience. Graduate assistants work with faculty and staff in the areas of teaching, research and/or administration. The graduate assistant is awarded a tuition scholarship as well as a stipend. *More at:* [scranton.edu/ga](http://scranton.edu/ga)

**Career Development Services**

MSSE students have full access to the services of the Gerard R. Roche Center for Career Development, which include resume and cover letter writing, interview and job search techniques, and participation in employer on-campus recruiting visits and Career Expos. Students and alumni can access a wide range of employment opportunities through the office’s online job posting system. The career team is available to consult for advice and support throughout your career. *More at:* [scranton.edu/careers](http://scranton.edu/careers)

**CONTACT**

**LOCATION**

Office: <b>570.941.4416</b>	<b>The University of Scranton Office of Graduate Admissions</b>  The Estate, Scranton, PA, 18510-4699	
<a href="mailto:gradadmissions@scranton.edu">gradadmissions@scranton.edu</a>		
<a href="http://scranton.edu/gradeducation">scranton.edu/gradeducation</a>		