



Twin Cities Campus

Security Technologies Minor

Technological Leadership Institute

College of Science and Engineering

Link to a [list of faculty](#) for this program.

Contact Information:

Security Technologies Graduate Program, Technological Leadership Institute, University of Minnesota,
290 McNamara Alumni Center, 200 Oak Street SE, Minneapolis MN 55455 (612-624-5474; fax: 612-624-7510)

Email: tliss@umn.edu

Website: <http://www.tli.umn.edu>

- Program Type: Graduate minor related to major
- Requirements for this program are current for Spring 2018
- Length of program in credits (Masters): 7
- Length of program in credits (Doctorate): 12
- This program does not require summer semesters for timely completion.

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

The security technologies graduate program shapes tomorrow's analytical and risk management policy makers and innovators through a multi-disciplinary graduate program developed in response to growing demand in many levels of industry and government. Through a multidisciplinary systems approach, the program synthesizes core learning in four areas: security methods and foundations; application expertise (including cyber, bio, food, infrastructure, global supply chains); systems science (interdependency among critical networks, components, human capital, organizational dimensions); and social and policy dimensions. Through elective courses, students choose a learning track in either security systems technologies or security risk management. Students can further specialize through a range of elective courses. This program bridges disciplines to address local, regional, national, and global areas of need, seeding innovative capabilities while enabling interdisciplinary connections through direct links to industry, business, and government partners.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

The preferred undergraduate GPA for admittance to the program is 3.00.

Special Application Requirements:

Applicants for the minor must be enrolled in a degree program at the University of Minnesota and must be interviewed for admission (in person or by telephone) by the DGS or designate, except in rare circumstances where this requirement may be waived.

For an online application or for more information about graduate education admissions, see the [General Information](#) section of the catalog website.

Program Requirements

Use of 4xxx courses towards program requirements is not permitted.

Program Sub-plans

Students are required to complete one of the following sub-plans.

Students may not complete the program with more than one sub-plan.

Masters

Minor Courses

Take 7 or more credit(s) from the following:

- **ST 8109** - Cybersecurity Foundations - Technology, Risk & Communication (2.0 cr)
- **ST 8110** - Security Science and Technology Foundations (3.0 cr)
- **ST 8111** - Methods, Theory, and Applications (2.5 cr)



- ST 8113 - Information and Cyber Security (2.0 cr)
- ST 8200 - Special Topics in Security Technologies (0.5 cr)
- ST 8220 - Vulnerability, Risk and Threat Assessment and Management (2.5 cr)
- ST 8221 - Communications of Risk and Security (1.0 cr)
- ST 8330 - Critical Infrastructure Protection (2.5 cr)
- ST 8331 - Dynamic Systems Modeling and Simulation Tools (2.0 cr)
- ST 8440 - Security Practicum (0.5 - 2.0 cr)
- ST 8510 - Psychology/Behavior Intelligence for Homeland Security (2.0 cr)
- ST 8511 - Public Policy (1.0 cr)
- ST 8512 - Partnership in Conflict Management: Security/Privacy Law, Social Responsibility and Ethics (2.0 cr)
- ST 8661 - Securing Cyberspace (Fundamentals) (3.0 cr)

Doctoral

Minor Courses

Take 12 or more credit(s) from the following:

- ST 8109 - Cybersecurity Foundations - Technology, Risk & Communication (2.0 cr)
- ST 8110 - Security Science and Technology Foundations (3.0 cr)
- ST 8111 - Methods, Theory, and Applications (2.5 cr)
- ST 8113 - Information and Cyber Security (2.0 cr)
- ST 8200 - Special Topics in Security Technologies (0.5 cr)
- ST 8220 - Vulnerability, Risk and Threat Assessment and Management (2.5 cr)
- ST 8221 - Communications of Risk and Security (1.0 cr)
- ST 8330 - Critical Infrastructure Protection (2.5 cr)
- ST 8331 - Dynamic Systems Modeling and Simulation Tools (2.0 cr)
- ST 8440 - Security Practicum (0.5 - 2.0 cr)
- ST 8510 - Psychology/Behavior Intelligence for Homeland Security (2.0 cr)
- ST 8511 - Public Policy (1.0 cr)
- ST 8512 - Partnership in Conflict Management: Security/Privacy Law, Social Responsibility and Ethics (2.0 cr)
- ST 8661 - Securing Cyberspace (Fundamentals) (3.0 cr)