

## Duluth Campus

## Toxicology M.S.

Duluth School of Medicine - Adm

### Medical School - Duluth Campus

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

- **Students will no longer be accepted into this program after Spring 2013. Program requirements below are for current students only.**
- **Students will no longer be accepted into this program after Spring 2012. Program requirements below are for current students only.**

### Contact Information:

Toxicology Graduate Program, Medical School Duluth, 162 SMed, 1035 University Drive, Duluth, MN 55812 (218-726-6354; fax: 218-726-8014)

Email: [toxgrad@d.umn.edu](mailto:toxgrad@d.umn.edu)

Website: <http://www.ahc.umn.edu/toxicology>

- Program Type: Master's
- Requirements for this program are current for Fall 2016
- Length of program in credits: 36 to 38
- This program requires summer semesters for timely completion.
- Degree: Master of Science

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.

This University-wide program provides comprehensive training in the broad scope of toxicology. Toxicology, the science of poisons, is devoted to identifying and quantifying potential noxious agents in our environment. Although most chemical agents at sufficiently large doses may be toxic, not all present a significant risk to human health or to environmental organisms or ecosystems. Accordingly, the essence of the science of toxicology is defining the fine line that distinguishes a risk from a residue. To accomplish this requires scientific expertise in such areas as analytical and environmental chemistry, biology, and mathematics. Advanced courses and research are also available in such subdisciplines as human health risk assessment, epidemiology, environmental chemistry and engineering ecotoxicology, food additives and nutritional toxicology, biochemical and physiological mechanisms, histopathology, diagnostic and analytical toxicology, drug metabolism, chemical carcinogenesis, behavioral toxicology, and the toxicity of noxious agents to various organ systems (e.g., nervous, heart, liver, kidneys).

## 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.

A bachelor's degree or its foreign equivalent from a recognized college or university; at least a full year each of biology, organic chemistry, and physics; as well as mathematics are required.

Applicants must submit their test score(s) from the following:

- GRE

International applicants must submit score(s) from one of the following tests:

- TOEFL
  - Internet Based - Total Score: 79
  - Internet Based - Writing Score: 21
  - Internet Based - Reading Score: 19
  - Paper Based - Total Score: 550
- IELTS
  - Total Score: 6.5

The preferred English language test is Test of English as Foreign Language

Key to [test abbreviations](#)(GRE, TOEFL, IELTS).

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

## Program Requirements

**Plan A:** Plan A requires 22 major credits, 6 credits outside the major, and 10 thesis credits. The final exam is oral.

**Plan B:** Plan B requires 30 major credits and 6 credits outside the major. The final exam is oral.

This program may be completed with a minor.

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

A minimum GPA of 2.80 is required for students to remain in good standing.

At least 2 semesters must be completed before filing a Degree Program Form.

The master of science degree is offered under Plan A and Plan B. Plan A requires 22 course credits and 10 thesis credits; Plan B requires 30 course credits. A core curriculum of 8 credits in toxicology (TXCL 8012, 8013, and 8100) is required for both plans. Additional courses are arranged on an individual basis.

### Required Coursework

TXCL 8012 *{Inactive}*(3.0 cr)

TXCL 8013 *{Inactive}*(3.0 cr)

TXCL 8100 *{Inactive}*(1.0 cr)