

Science Technician AS DEGREE

Program Overview

The Science Technician degree is designed for students who are seeking employment in a science laboratory and/or who are seeking to transfer to a four-year program.

Career Opportunities

Science technicians can work in many aspects of the laboratory process industry from basic research to clean room facility skills. Technicians operate many kinds of equipment and instrumentation, prepare samples for processing, monitor commercial production, test for product quality and collect and analyze samples. Technicians will conduct a variety of laboratory procedures, from routine process of laboratory procedures to complex research projects. A solid background in science and math along with the skills in using advanced equipment is vital for success as a Science Technician.

Program Outcomes

1. Design and conduct experiments as well as analyze and interpret the results.
2. Identify, formulate, and solve science technology problems.
3. Understand professional and ethical responsibility.
4. Apply knowledge of mathematics, science, and technology in the solution of chemical technology problems.
5. Solve science technology problems within realistic constraints such as economic, environmental, social, political, ethical, and health and safety, manufacturability, and sustainability.

Transfer Opportunities

Saint Paul College has a transfer articulation agreement between the following program and post-secondary institution for the baccalaureate degree program listed below.

For more information please go to saintpaul.edu/Transfer.

Science Technician AS

| | |
|----|---|
| BA | Individualized Studies Metropolitan State University |
| BS | Chemistry Metropolitan State University |

Program Faculty

| | |
|---------------|--|
| Travis Mills | travis.mills@saintpaul.edu |
| Penny Starkey | penny.starkey@saintpaul.edu |

Program Requirements

- Check off when completed
Science and Engineering Core: Required

| Course | Cr |
|--|-----------|
| <input type="checkbox"/> BIOC 1730 Biochemical Laboratory Exploration . . . | 4 |
| <input type="checkbox"/> CHEM 1712 Principles of Chemistry 2 | 4 |
| <input type="checkbox"/> CHEM 2730 Instrumental Analysis | 4 |
| <input type="checkbox"/> CHEM 2790 Science Technician Laboratory Research Project | 3 |
| <input type="checkbox"/> ENGR 1706 Principles of Engineering | 2 |
| Subtotal. | 17 |

Science and Engineering Focus (Select one focus area)

| | |
|---|-----------|
| Chemistry | |
| <input type="checkbox"/> CHEM 2721 Organic Chemistry 2 | 5 |
| <input type="checkbox"/> Science or Engineering Electives | 8 |
| Biochemistry | |
| <input type="checkbox"/> BIOC 2700 Biochemistry | 4 |
| <input type="checkbox"/> Science or Engineering Electives | 9 |
| Physics | |
| <input type="checkbox"/> PHYS 2710 General Physics 2. | 5 |
| <input type="checkbox"/> Science or Engineering Electives | 8 |
| Engineering | |
| <input type="checkbox"/> ENGR 2700 Intro to Problem Solving and Engineering Design | 2 |
| <input type="checkbox"/> Science or Engineering Electives | 11 |
| Focus Subtotal. | 13 |

Note: Science/engineering electives must be taken from: BIOC, BIOL, CHEM, CSCI, ENGR, NSCI, PHYS. Consult with your advisor for information about 2, 3, and 4 credit course options.

General Education/MnTC Requirements

| Refer to the Minnesota Transfer Curriculum Course List for each Goal Area | Cr |
|---|-----------|
| <input type="checkbox"/> Goal 1: Communication | 7 |
| ENGL 1711 Composition 1 – 4 cr COMM 17XX – 3 cr | |
| <input type="checkbox"/> Goal 3: Natural Science | 4 |
| CHEM 1711 Principles of Chemistry 1 – 4 cr | |
| <input type="checkbox"/> Goal 4: Mathematical/Logical Reasoning. | 8 |
| MATH 2749 Calculus 1 – 4 cr MATH 2750 Calculus 2 – 4 cr | |
| <input type="checkbox"/> Goal 5: History, Social Science and Behavioral Sciences | 3 |
| <input type="checkbox"/> Goal 6: Humanities and Fine Arts. | 3 |
| <input type="checkbox"/> Goals 1-10 of the Minnesota Transfer Curriculum | 5 |
| Students must select a minimum of 5 additional credits such that courses from at least six (6) goal areas of the Minnesota Transfer Curriculum are met. | |
| General Education Requirements | 30 |
| Total Program Credits | 60 |

Program Start Dates

Fall, Spring, Summer

Course Sequence

This course sequence is recommended for a full-time student; however, this sequence is not required. Not all courses are offered each semester; a selection of courses is offered summer term. Students should consult with the Program Faculty each semester.

First Semester

| | |
|--|-----------|
| ENGR 1706 Principles of Engineering | 2 |
| Goal 1: ENGL 1711 Composition 1. | 4 |
| Goal 3: CHEM 1711 Principles of Chemistry 1 | 4 |
| Goal 5: History, Social Science and Behavioral Sciences | 3 |
| Goal 6: Humanities and Fine Arts | 3 |
| Total Semester Credits. | 16 |

Second Semester

| | |
|---|-----------|
| Goal 1: COMM 17XX | 3 |
| Goal 3: CHEM 1712 Principles of Chemistry 2 | 4 |
| Goal 3: BIOC 1730 Biochemical Lab Exploration | 4 |
| Goal 4: MATH 2749 Calculus 1 | 4 |
| Total Semester Credits. | 15 |

Third Semester

| | |
|---|-----------|
| Goal 3: CHEM 2730 Instrumental Analysis | 4 |
| Goal 4: MATH 2750 Calculus 2 | 4 |
| MnTC Elective | 3 |
| Focus Area Course(s) | 5 |
| Total Semester Credits. | 16 |

Fourth Semester

| | |
|---|-----------|
| Goal 3: CHEM 2790 Science Tech Lab Research Project. | 3 |
| MnTC Elective: ENGL 1712 Composition 2 Recommended | 2 |
| Focus Area Course(s) | 8 |
| Total Semester Credits. | 13 |
| Total Program Credits | 60 |

Minimum Program Entry Requirements

Students entering this program must meet the following minimum program entry requirements:

Reading: Score of 78+ or grade of "C" or better in READ 0722

Writing: Score of 78+ on Reading Comprehension or grade of "C" or better in ENGL 0922

College Level Mathematics: Score of 50+ or grade of "C" or better in MATH 0920

Assessment Results and Prerequisites: Students admitted into Saint Paul College programs may need to complete additional courses based on assessment results and course prerequisite requirements. Certain MATH, READ, and ENGL courses have additional prerequisites.

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Information is subject to change.
This Program Requirements Guide is not a contract.