



Springfield College Sequencing Guide

Mathematics and Computer Technology Major (non-teaching) ▼ 2017-2018

If you are a Mathematics and Computer Technology major (non-teaching) who matriculated to Springfield College in 2017-2018, use this as a guide for sequencing your courses. Requirements listed on this guide are subject to change and may not be offered when listed—use your online degree audit for the most accurate information. Always confirm your plans with your advisor, and consult your advisor or chairperson if you have any questions.

MACT Major – Typical First-Year Schedule

Fall:

ENGL 113, College Writing I (3 cr – fills half College Writing GenEd)
MATH 140, Calculus I (3 cr – also fills Quantitative Reasoning GenEd; may need to first take MATH 115 and/or 125 to prepare)
Plus other GenEds, major requirements with flexible timing, or electives (as applicable) to total 15 credits

Spring:

ENGL 114, College Writing II (3 cr – fills half College Writing GenEd)
MATH 142, Calculus II (3 cr)
Plus other GenEds, major requirements with flexible timing, or electives (as applicable) to total 15 credits

Fall or Spring:

HLTH 100, Wellness: A Way of Life (3 cr – fills Health and Wellness GenEd)
CISC 103, Studio in Computer Graphics (3 cr – also fills Visual/Performing Arts GenEd)
CISC 105, Introduction to Computer Concepts (3 cr – also fills Computing/Technology GenEd)
CISC 115, Microcomputer Applications (3 cr)

MACT Major – Typical Second-Year Schedule

Fall or Spring:

MATH 201, Contemporary Applications of Mathematics (3 cr)
MATH 235, Discrete Mathematics I (3 cr)
Plus GenEds, major requirements with flexible timing, or electives (as applicable) to total 30 credits for the year

MACT Major – Typical Third-Year Schedule

Fall or Spring:

There are no major requirements specifically recommended for your third year. You should select GenEds, major requirements with flexible timing, or electives (as applicable) to total 30 credits for the year

MACT Major – Typical Fourth-Year Schedule

Fall or Spring:

There are no major requirements specifically recommended for your fourth year. You should select any outstanding major requirements, GenEds, or electives to total a minimum of 120 credits for your career

Requirements continued on next page

Additional MACT Requirements – Flexible Timing

In general, 100-level courses should be taken first or second year, 200-level courses can be taken first year or later, and 300-level can be taken second year or later. As courses may not be offered every year, 400-level courses should be taken third year if offered. Check course descriptions for specific prerequisites.

CISC 202, Computer Animation (3 cr)

MATH 205, Geometry (3 cr)

MATH 215, Probability and Statistics (3 cr)

CISC 165, Programming in BASIC (3 cr)

or

CISC 175, Introduction to Computer Science with C++ and Java (3 cr)

In addition, you must complete one of the following concentrations:

Computer Science:

CISC 175, Introduction to Computer Science with C++ and Java (3 cr)

CISC 235, Computer Logic Design (3 cr)

CISC 255, Data Communications and Distributed Processing (3 cr)

CISC 482, Computer Systems Seminar (3 cr – also fills one WAC requirement)

In addition, select **3** of the following courses, for **9 credits**:

CISC 275, Data Structures Using C++ (3 cr)

CISC 280, Object-Oriented Programming with Java (3 cr)

CISC 315, Database Development and Management (3 cr)

CISC 375, Computer Architecture (3 cr)

CISC 410, Fundamentals of Operating Systems (3 cr)

Mathematics:

MATH 220, Calculus III (3 cr)

MATH 305, Elementary Differential Equations (3 cr)

MATH 310, Linear Algebra (3 cr)

MATH 335, Discrete Mathematics II (3 cr)

MATH 382, Mathematics Seminar (3 cr)

MATH 405, Mathematical Analysis (3 cr – also fills one WAC requirement)

MATH 415, Abstract Algebra (3 cr – also fills one WAC requirement)

MACT Program Standards

Program standards for the MACT major include, but are not limited to:

- A minimum cumulative GPA of 2.500
- Achieve a minimum of 2.500 GPA in all program requirements
- Complete all program requirements with a grade of C- or better

For more information about these and other program standards, contact your advisor or the MPCS chairperson.

GenEd Requirements, Electives, and College Requirements

This major typically requires 54 credits to complete. In addition to the requirements previously listed, you must complete:

- **Additional GenEds:** Literary Studies, Spiritual/Ethical Dimensions, Natural Sciences, Historical/Cultural Studies, Behavioral/Social Sciences, International/Multicultural Studies, Social Justice, and Physical Activity. For the Computer Science concentration, you must also complete your 2nd WAC requirement.
- **29 elective credits or more** (depending on GenEds selected) to total 120 credits
- The **residency requirement**—60 credits taken at Springfield College (including 15 of your last 30)