

M.S. in Applied Mathematics and Computer Science

- Math advisor: Dr. Brittany Bannish (bbannish@uco.edu)
- CS advisor: Dr. Hong Sung (hsung@uco.edu)

Advisement: Students must meet with the advisor every semester before they enroll for classes.

- For students doing research on applied math area
 - The math advisor keeps the record and supervises the plan of study with the approval of the CS advisor on CS courses.
- For students doing research on computer science area
 - The CS advisor keeps the record and supervises the plan of study with the approval of the math advisor on math/stat courses.

Incoming Student Advisement

- In order to enroll in courses, incoming students must communicate via e-mail with the math and CS advisors, *prior to the start of the semester*.
 - The math advisor will give permission to enroll in math and statistics classes, and the CS advisor will give permission to enroll in computer science classes.
- Additionally, incoming students must meet with the math and CS advisors on the first day of the semester to confirm their class schedules and discuss the program requirements.

MATH 5853 Introduction to Graduate Research

- Students are advised to enroll in this course no earlier than the second-to-last semester before their graduation.
- When several students need to take this course in the same semester for research in CS area, the CS department may offer a graduate seminar course in place of MATH 5853. Otherwise, the following procedure applies.
 - Research supervisor selection:
 - For research in applied math area, students choose a math faculty.
 - For research in CS area, students choose a CS faculty.
 - With the agreement from the faculty, students report to the math advisor (if research in applied math) or to the CS advisor (if research in CS area) to enroll in this course.
 - The corresponding advisor gives permission to enroll

Comprehensive Exam

- Dates
 - Offered once in April and once in November, on a Friday, 1:00-5:00pm, usually about 2 to 3 weeks before the end of the semester. Exact date will be announced each semester.
- Coverage: four courses (components)
 - Two from the following three math/stat courses: Advanced Calculus for Applications 1 (MATH 5143), Operations Research 1 (MATH 5113), and Computer Applications in Statistics (STAT 5263)

- Two from CS with the approval of the CS advisor (at least one from the CS required courses)
- Students may request to take the exam one more time if they fail the first time, but a second chance is not guaranteed.
 - If a student fails the first time, the comprehensive exam committee will decide whether to grant the student a second attempt at the exam.
 - Students are advised to take the exam during the second-to-last semester before their graduation so that, upon failure, students may re-take the exam during the last semester.
- Passing criteria: students must score 70% or higher on EACH component.
 - Upon failing in one component, depending on the performance of the other three components, the comprehensive exam committee may decide that the student need only take the failed component on the second exam.
 - Upon failing two or more components, students must re-take the whole exam (i.e. all four components).
- CS components waiver option: A student who successfully completes CMSC 5980 Graduate Project or CMSC 5990 Graduate Thesis may be waived for computer science components of the comprehensive exam as follows: (Note that math components are not waived)
 1. Students do research with a faculty by enrolling in "MATH 5853 Intro to Graduate Research".
 2. After successfully completing MATH 5853, **at the faculty's discretion**, students may continue to do the research by enrolling in CMSC 5980 or CMSC 5990.
 3. The outcome of CMSC 5980 or CMSC 5990 must include a presentation of paper/poster at a reviewed conference or a publication at a reviewed journal/magazine.
 4. Then, the student gets waiver for the computer science components of the comprehensive exam.

Prerequisite Requirements of Computer Science

- Students without a BS in computer science/engineering are required to complete both **SE 3103 Object Oriented Software Construction** and **CMSC 3613 Data Structures and Algorithms**. In addition, some other prerequisites including CMSC 1613 Programming I, CMSC 2613 Programming II, CMSC 2123 Discrete Structures, CMSC 2813 Computer Organization I are required depending on the courses completed during their undergraduate studies.

Prerequisite Requirements of Mathematics & Statistics

- Students are required to complete **MATH 3103 Differential Equations**, **MATH 3143 Linear Algebra**, and **STAT 2113 Statistical Methods**. Students must have completed the calculus sequence before entering the graduate program, as MATH 2343 Calculus 4 is a prerequisite for Differential Equations, and MATH 2333 Calculus 3 is a prerequisite for Linear Algebra.

F1 Visa Status: CHECK WITH THE OFFICE OF GLOBAL AFFAIRS FOR THE UP-TO-DATE INFORMATION. The following is only for your information.

- Students on F1 visa must take 9 credit hours of graduate courses per semester to maintain the full time status
 - If not all 9 hours are graduate credits (i.e., if some undergraduate courses are included), the student must enroll for 12 hours.
 - An exception may be considered in the last semester to graduation. Contact *the Office of Global Affairs* for details of the corresponding immigration law.
- Students on F1 visa must take at least 6 credit hours of traditional classes (graduate course). Beyond it, students may take IVE (interactive video) classes.