Curriculum Flow Chart for the Mathematics and Computer Science Major

Semester 1
- MATH 220 or 221
- CS 100

Semester 2
- MATH 231
- MATH 241

Semester 3
- MATH 347 or MATH 348
- MATH 415 or MATH 416
- Group I (see below)

Semester 4
- MATH 441, MATH 446 or MATH 484
- Group II (see below)

Semester 5
- MATH 444 or MATH 447
- Group III (see below)

Semester 6
- MATH 357
- Group IV (see below)

Semesters 7 and 8
- CS 421
- Group V (see below)

Group Requirements: Must take one from each group

Group I: CS 361 (preferred), MATH 461 or STAT 400/MATH 463
Group II: MATH 412 (preferred) or MATH 417
Group III: MATH 441, MATH 446 or MATH 484
Group IV: MATH 444 or MATH 447
Group V: MATH 414, CS/MATH 473, CS/MATH 475, CS 476, CS 477, CS 481 or CS 482

*CS 242 is you have earned credit for CS 225 before entering the major

Gen-Ed, language, and other requirements. See http://www.las.illinois.edu/students/requirements/gened/
A line from one course to another below it indicates that the first course is a prerequisite for the second.
Curriculum Plan: Math & Computer Science (for students that entered Fall 2018 or after)

**Name:** ____________________________________________________  **UIN:** ___________________  **Date:** ____________

**LAS 101**  
**General Education Requirements**  
- Composition 1  
- Advanced Composition  
- 3hrs Western  
- 3hrs Non-Western  
- 3hrs US Minority (FA18 & after)  
- 3hrs Humanities and the Arts  
- 3hrs Humanities and the Arts  
- 3hrs Social and Beh. Science  
- 3hrs Social and Beh. Science  
- 3hrs Natural Sciences & Technology  
- 3hrs Natural Sciences & Technology  
- 4th Level Language

**Math Courses**  
- MATH 220 5hrs, CALC or MATH 221 4hrs, CALC I  
- MATH 231 3hrs, CALC II  
- MATH 241 4hrs, CALC III  
- MATH 347  
- MATH 415 3hrs, Applied Linear Algebra

**Computer Science Courses**  
- CS 100 1hr, Freshman Orientation  
- CS 125 4hrs, Intro to Computer Science  
- CS 126* 3hrs, Software Design Studio  
  (Prereq CS 125)  
- CS 173 3hrs, Discrete Structures  
  (CS 125 and CALC)  
- CS 225 4hrs, Data Structures  
  (Prereq CS 125 and CS 173)  
- CS 233 4hrs, Computer Architecture  
  (Prereq CS 125, CS 173 & CS 225 or concurrent)  
- CS 241 4hrs, System Programming  
  (Prereq CS 225 & CS 233)  
- CS 357 3hrs, Numerical Methods I  
  (Prereq 1-- CS course, MATH 241; MATH 225, 415, 416, or concurrent)  
- CS 374 4hrs, Algorithms and Models of Comp  
  (Prereq CS 225)  
- CS 421 3hrs, Programming Languages and Compilers  
  (Prereq CS 233 and CS 374)  
- CS 450 3hrs, Numerical Analysis (Prereq CS 125, MATH 285; CS 357 or MATH 415 or 416) or CS 457 3hrs, Numerical Methods II (Prereq CS 357)  
  * CS 242 if you have earned credit for CS 225

**Students must select at least six 400-level mathematics and computer science courses, including one from each of the following five groups:**

**Group I**  
- CS 361 (preferred), MATH 461 or STAT 400

**Group II**  
- MATH 412 (preferred) or MATH 417

**Group III**  
- MATH 441, MATH 446 or MATH 484

**Group IV**  
- MATH 444 or MATH 447

**Group V**  
- MATH 414, CS/MATH 473, CS/MATH 475, CS 476, CS 477, CS 481 or CS 482

**Additional Notes**  
- 120 hours required for graduation  
- Prerequisites means you should have a successful grade earned before continuing on to the next course.  
- Some courses are offered fall-only or spring-only. Be sure to plan ahead!  
- Working ahead in your CS coursework does not guarantee entrance into the next CS course.