

# CMSC MAJOR WORKSHEET

Fall 2014

Student:

ID#

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## I. Required computer science courses

CMSC 201 Computer Science I <b>Grade of B required</b> .....	4	___
202 Computer Science II <b>Grade of B required</b> .....	4	___
203 Discrete Structures.....	3	___
304 Ethical Issues in Information Technology.....	3	___
313 Computer Organization and Assembly Language Programming.....	3	___
331 Principles of Programming Languages.....	3	___
341 Data Structures .....	3	___
447 Software Engineering I.....	3	___
411 Computer Architecture .....	3	___
421 Principles of Operating Systems .....	3	___
441 Algorithms.....	3	___

## II. Required math courses

MATH 151 Calculus I .....	4	___
MATH 152 Calculus II .....	4	___
MATH 221 Introduction to Linear Algebra.....	3	___

## III. Required statistics course

STAT 355 Applied Statistics I .....	4	___
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## IV. Required science course - One of the following sequences:

BIOL 141 Foundations of Biology: Cells, Energy and Organisms .....	4	___
BIOL 142 Foundations of Biology: Ecology and Evolution .....	4	___

### OR

CHEM 101 Principles of Chemistry I.....	4	___
CHEM 102 Principles of Chemistry II .....	4	___

### OR

PHYS 121 Introductory Physics I .....	4	___
PHYS 122 Introductory Physics II.....	4	___

AND additional science course(s) to add up to a total of 12 credits. Select from: BIOL 251,251L, 252,252L,275,275L,302,302L,303,303L,304,304L,305,305L,CHEM102L,GES110,111,120,286,PHYS 122L,224,304.  
Science course .....

Science course.....	___
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**Note that at least one science course must include a laboratory component, CHEM 102L or PHYS 122L would fulfill the lab requirement. The lab requirement is a University requirement for graduation, not a Computer Science requirement. The lab credit will count towards the 12 credit requirement for the major.**

If you have completed three science classes and have not earned 12 credits you may count MATH 225,251 or 301 as a fourth course to meet the 12 credit requirement.

\* CMSC 345 and CMSC 447 will be cross listed and students will have the option of taking either course.

**V. Two computer science electives chosen from the following:**

CMSC 426 Principles of Computer Security.....	3	___
431 Compiler Design Principles.....	3	___
435 Computer Graphics.....	3	___
448 Software Engineering II .....	3	___
451 Automata Theory and Formal Languages .....	3	___
455 Numerical Computations.....	3	___
456 Symbolic Computation.....	3	___
461 Database Management Systems .....	3	___
471 Artificial Intelligence.....	3	___
481 Computer Networks.....	3	___
483 Parallel and Distributed Processing.....	3	___

**VI. Three computer science electives chosen from the following or from V above:**

Any three 3-credit CMSC 400-level courses except CMSC 404 and CMSC 495-499.

CMSC 400 level course.....	3	___
CMSC 400 level course .....	3	___
CMSC 400 level course.....	3	___

Students may choose electives in this category from computer engineering courses with special permission from the CSEE department. Up to two of these courses also may be chosen from the following list of mathematics courses. MATH430,441,452, 475, 481, 483.

**TOTAL: 77 credits required**

**VII. Electives - The following do not satisfy requirements for the major, but they will contribute to your professional growth and to the total credits for graduation:**

CMSC 299 Independent Study.....	varied credits	
498 Independent Study - Co-op/Internship .....	3	___
499 Independent Study.....	varied credits	
ENGL 393 Technical Writing.....	3	___

**Please refer to your degree audit to review general education requirements.**