

## Applied Computer Science Major—B.S. 50 credits

Suggested Plan of Study

### Computer Science Department

**Contact Person: Sarnath Ramnath , Dept. Chair ([sarnath@eeyore.stcloudstate.edu](mailto:sarnath@eeyore.stcloudstate.edu))**

#### Program Advisors

Dr. Andrew Anda  
[aanda@eeyore.stcloudstate.edu](mailto:aanda@eeyore.stcloudstate.edu)  
Dr. Raymond Bagley  
[rbagley@eeyore.stcloudstate.edu](mailto:rbagley@eeyore.stcloudstate.edu)  
Ms. Theresia Fisher  
[fisher@eeyore.stcloudstate.edu](mailto:fisher@eeyore.stcloudstate.edu)  
Dr. Jayantha Herath  
[jherath@eeyore.stcloudstate.edu](mailto:jherath@eeyore.stcloudstate.edu)

Dr. Jie Hu  
[jhu@eeyore.stcloudstate.edu](mailto:jhu@eeyore.stcloudstate.edu)  
Dr. Pranava Jha  
[pkjha@eeyore.stcloudstate.edu](mailto:pkjha@eeyore.stcloudstate.edu)  
Dr. Bryant Julstrom  
[julstrom@eeyore.stcloudstate.edu](mailto:julstrom@eeyore.stcloudstate.edu)

#### Transfer Students' Advisors:

Dr. Sarnath Ramnath  
[sarnath@eeyore.stcloudstate.edu](mailto:sarnath@eeyore.stcloudstate.edu)  
Dr. Annette Schoenberger  
[annette@eeyore.stcloudstate.edu](mailto:annette@eeyore.stcloudstate.edu)

First Semester	Second Semester
ENGL 191-Intro to Rhetorical and Analytical Writing (4 cr.)* MATH 115 <sup>1,2</sup> – Precalculus (5 cr.)	CSCI 201 <sup>3</sup> -Fundamentals of Computer Science (4 cr.) MATH 221 <sup>3</sup> -Calculus & Analytical Geometry I (5 cr.) CMST 192-Introduction to Speech Communication (3 cr.)
Third Semester	Fourth Semester
CSCI 301 <sup>3</sup> -Introduction to Algorithms and Data Structures (4 cr.) MATH 273 <sup>3,6</sup> -Discrete Mathematics I (3 cr.)	CSCI 220 <sup>3</sup> -Computer Architecture I (4 cr.) PHIL 194-Critical Reasoning (3 cred.) ENGL 332 or CMST 341 (3 cr.) MATH 373 <sup>3</sup> -Discrete Mathematics II (3 cr.)
Fifth Semester	Sixth Semester
CSCI 320 <sup>3</sup> -Computer Architecture II (4 cr.) CSCI 331 <sup>5</sup> -Software Systems (3 cr.)	CSCI 310 <sup>3</sup> -Introduction to Operating Systems (3 cr.) CSCI 330 <sup>4</sup> -Programming Language Concepts (3 cr.) CSCI 4xx <sup>7</sup> (Elective) (3 cr.)
Seventh Semester	Eighth Semester
CSCI 311 <sup>3</sup> – Systems Programming (2 cr.) CSCI 4xx <sup>7</sup> (Elective) (3 cr.)	CSCI 332 <sup>4</sup> -Computing Ethics (3 cr.)

**Note: This program requires a minor or a second major. Since the general education requirements for your program depend upon the choice of majors, this degree map does not include any courses other than those required for the major. You must plan your general ed program in consultation with your advisors and the SCSU Advising Center.**

<sup>1</sup>Math 115 may be replaced by Math 112 and Math 113. In that case, Math 112 must be completed before taking CSCI 201 and Math 113 taken along with CSCI 201.

<sup>2</sup>Students who are ready to take Math 221 are not required to take this class.

<sup>3</sup>These course are offered in both semesters.

<sup>4</sup>Offered in spring semester only.

<sup>5</sup>Offered in fall semester only.

<sup>6</sup>Students normally apply for admission to the major after completing CSCI 201, Math 221 and Math 273.

<sup>7</sup>Senior-level electives are to be chosen in consultation with a faculty advisor.

#### Notes:

- (a) Not all electives are offered every semester. See schedule for offerings.
- (b) ENGL 191 may be taken in the second semester of the freshman year if CMST 192 is taken in the first semester.
- (c) Students must successfully complete 120 credits to graduate, at least 45 credits at the 300-400 level.
- (d) At least one-half of the 300- and 400-level computer science courses in this major program must be taken from our department
- (e) Transfer students must see a transfer advisor to find out where they are in the program and also to get permission to register for “major only” courses.