

# Computational Science Degree Requirement Checklist

Student Name: \_\_\_\_\_

## I. General Education Requirements..... 39-50\*

Requirements		Finished Courses	Credit hours
<b>English (6-7)</b>	ENGL 101, 101L and 102 (each with a grade of "C" or higher) Students may place out of ENGL 101L with an appropriate score on the Freshman English Placement Exam. Students who transfer into USCB with credit for first-semester freshman composition are exempt from the ENGL 101L requirement		
<b>Numerical and Analytical Reasoning (8)</b>	MATH 141 and 142		
<b>Speech (3)</b>	COMM 140 or 201 or 230		
<b>Liberal Arts (15)</b>	<b>Liberal Arts Electives</b> (ENGL 462 and one course from humanities or social/behavioral sciences) <b>(6)</b> Courses from the following disciplines: BFRO, ANTH, ARTH, ARTS, ECON, ENGL, BFRE, BEOL, BGER, HIST, BJOU, LING, MUSC, BPHI, POLI, PSYC, BRLG, SOCY, BSPA, COMM, THEA.		
	<b>HIST 101, 102, 111, 112, 115, or 116 (3)</b>		
	<b>Fine Arts (3)</b> Courses from: ARTH, ARTS, MUSC, or THEA		
	<b>Social/Behavioral Sciences (3)</b> Courses from: ANTH, ECON, GEOL, GLST, LING, POLI, PSYC, and SOCY		
<b>Natural Sciences (7-8)</b>	Two courses, one of which must include a laboratory (Courses from: ASTR, BIOL, CHEM, MSC1, and PHYS, but two courses with laboratory are recommended)		
<b>Foreign Languages (6)</b>	Students shall demonstrate in one foreign language the ability to comprehend the topic and main ideas in written and, with the exception of Latin and Ancient Greek, spoken texts on familiar subjects. For foreign languages taught at USCB, this requirement may be satisfied and credit earned by proficiency. For all other foreign languages, the requirement is waived but no credit is earned by demonstrating an equivalent proficiency.		
<b>Global Citizenship and Multicultural Understanding (0-3)</b>	The following courses have been approved for this requirement: ANTH B102, ANTH B312, ANTH B317, ANTH B351, ANTH B352, ANTH 452, ENGL 291, GEOL 121, GLST 3B01, GLST B398, HIST B109, HIST B115, HIST B116, RELG B203, SOCY B315 and SPAN B380. Non-equivalent transfer credits may be evaluated for approval on a case by case basis by the Program Director for General Education.		
<b>Total hours:</b>			

\* Waiver of Foreign Language Requirement for Bilingual Speakers: Students whose native language is other than English and who have scored either 550 on the paper-based, 213 on the computer-based, or 77 on the internet based Test of English as a Foreign Language (TOEFL), are exempt, without credit, from USCB's language requirement. English-speaking students who document or certify native or near-native proficiency in a language other than English are also exempt, without credit, from this requirement.

**II. Program Requirements ..... 23**

Requirements	Finished Courses	Credit hours
CSCI 104 Matlab		
CSCI 150 Intro to CSci		
CSCI 145 Algorithm I		
CSCI 146 Algorithm II		
MATH 240 Calculus III		
CSCI/MATH 280 Computational Math		
STAT 340 Probability and Statistics		
<b>Total Hours</b>		

**III. Major Requirements ..... 27**

Requirements	Finished Courses	Credit hours
CSCI 320 Database		
CSCI 350 Techniques of Computation		
CSCI 365 Computer Graphics		
CSCI 416 Computer Networks		
CSCI 422 Data Mining		
CSCI 450 Modeling and simulation		
CSCI 466 Data Visualization		
CSCI 469 High Performance Computing		
CSCI 470 Software Testing and Verification		
<b>Total Hours</b>		

**IV. Cognate Course Electives ..... 12**

Finished Courses	Credit hours
<b>Total Hours</b>	

**V. Electives ..... 12-24**

Finished Courses	Credit Hours
<b>Total hours:</b>	

<sup>+</sup> A cognate is a minimum of 12 hours in advanced-level courses related to, but outside, the major. It is intended to support the course work in the major. Cognate courses may be drawn from one or more departments, depending on the individual interests and program requirement of the student as determined by the student’s major advisor. A cognate differs from a minor in that the courses must be above prerequisite level and may be distributed over more than one subject area. Completion of a cognate is not recorded on the academic transcript. Requirements for individual cognates are available from the student’s academic advisor.