School/College: College of Arts and Sciences
Program: Computer Science
Degree Level: *Bachelor of Science (BS)*
Program Assessment Plan

Date Plan was Approved by Department: 12/11/2017

Please note: Assessment plans must be reviewed/updated and reapproved every five (5) years.

Name of Person Submitting Plan: Eric Chan-Tin

A. Program Information:

Assessment Coordinator's Name: Eric Chan-Tin

Assessment Coordinator's Email Address: chantin@cs.okstate.edu

B. Program Mission Statement

In the box below, provide the mission statement for the program.

The mission statement, educational objectives, and goals for program should guide the assessment process. The mission statement should align with department, college, and institutional mission statements.

1) to pursue and to publicize research projects in computer science in order to extend the present state of knowledge in the computer field
2) to educate students in all program levels in order to provide them with the knowledge, interest, and ethics to become productive members of the computing profession
3) to serve as an initial and continuing source of education in the field of computer science

C. Student Learning Outcomes

On the pages that follow, list the Student Learning Outcomes associated with the program identified in this assessment form.

C1) Student Learning Outcome #1: An ability to apply knowledge of computing and mathematics appropriate to the computer science program and to the discipline

Identify opportunities for students to learn this outcome during the academic program:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end of this document.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester

☐Yearly

☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 1 occurs on a cycle or rotation, click here to describe and provide the rationale.

C2) Student Learning Outcome #2: An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end of this document.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐ Survey

☒ Rating of skills (e.g., rubrics)

☐ Analysis of written artifacts

☐ Comprehensive, certification, or professional exam(s)

☐ Oral presentation

☐ Course project

☐ Satisfaction Survey

☐ Benchmarking

☐ Measuring effectiveness relative to professional standards

☐ Review of thesis/dissertation/ creative component

☐ Capstone project

☐ Internship

☐ Interviews

☐ Performance or jury

☐ Visual collection (photos, videos, etc.)

☐ Review of student research

☐ Other (please specify):
Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐ Yes   ☒ No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒ Each Semester   ☐ Yearly   ☐ Every other year

☐ Other (please specify): If the assessment of Learning Outcome 2 occurs on a cycle or rotation, click here to describe and provide the rationale.

C3) Student Learning Outcome #3: An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end of this document.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 3 occurs on a cycle or rotation, click here to describe and provide the rationale.

C4) Student Learning Outcome #4: An ability to function effectively on teams to accomplish a common goal

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey	☐Satisfaction Survey	☐Internship
☒Rating of skills (e.g., rubrics)	☐Benchmarking	☐Interviews
☐Analysis of written artifacts	☐Measuring effectiveness relative to professional standards	☐Performance or jury
☐Comprehensive, certification, or professional exam(s)	☐Review of thesis/dissertation/ creative component	☐Visual collection (photos, videos, etc.)
☐Oral presentation	☐Capstone project	☐Review of student research
☐Course project		☐Other (please specify):
		Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester	☐Yearly	☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C5) Student Learning Outcome #5: An understanding of professional, ethical, legal, security and social issues and responsibilities

Identify opportunities for students to learn this outcome during the academic program:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester

☐Yearly

☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C6) Student Learning Outcome #6: An ability to communicate effectively with a range of audiences

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C7) Student Learning Outcome #7: An ability to analyze the local and global impact of computing on individuals, organizations, and society

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C8) Student Learning Outcome #8: Recognition of the need for and an ability to engage in continuing professional development

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐ Survey

☒ Rating of skills (e.g., rubrics)

☐ Analysis of written artifacts

☐ Comprehensive, certification, or professional exam(s)

☐ Oral presentation

☐ Course project

☐ Satisfaction Survey

☐ Benchmarking

☐ Measuring effectiveness relative to professional standards

☐ Review of thesis/dissertation/ creative component

☐ Capstone project

☐ Internship

☐ Interviews

☐ Performance or jury

☐ Visual collection (photos, videos, etc.)

☐ Review of student research

☐ Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐ Yes   ☒ No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒ Each Semester

☐ Yearly

☐ Every other year

☐ Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C9) Student Learning Outcome #9: An ability to use current techniques, skills, and tools necessary for computing practice

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):
Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C10) Student Learning Outcome #10: An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

C11) Student Learning Outcome #11: An ability to apply design and development principles in the construction of software systems of varying complexity

Identify opportunities for students to learn this outcome during the academic program:
For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.
See course map at the end.

How will students be selected to participate in the assessment of this outcome?

All students will be assessed.

Assessment Methods
Identify the method(s) used to assess this learning outcome. Check all that apply.

☐Survey

☒Rating of skills (e.g., rubrics)

☐Analysis of written artifacts

☐Comprehensive, certification, or professional exam(s)

☐Oral presentation

☐Course project

☐Satisfaction Survey

☐Benchmarking

☐Measuring effectiveness relative to professional standards

☐Review of thesis/dissertation/ creative component

☐Capstone project

☐Internship

☐Interviews

☐Performance or jury

☐Visual collection (photos, videos, etc.)

☐Review of student research

☐Other (please specify):

Click here to specify.

Describe the how the assessment method will be implemented, administered, and/or conducted.
Faculty members will perform the assessment.

Does your department/program faculty have a goal set for this learning outcome?   ☐Yes   ☒No
For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.
If yes, click here to describe the goal set for this learning outcome.

Timeline for Planned Assessment
Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

☒Each Semester   ☐Yearly   ☐Every other year

☐Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

Instructions

The purpose of the knowledge rubric is for you to evaluate your students' level of achievement against the B.S. program learning outcomes. This evaluation should reflect your individual course outcomes specified in the course syllabus and how they relate to the overall degree program outcomes. Please fill out the rubric based on your assessment of how well the student work being evaluated demonstrates mastery of the respective and applicable program learning outcomes. **Please use a numeric value for the number of students that meet each level of mastery.**

This information is important to the Computer Science degree assessment report, mandated by the State Regents. This information will be tabulated and analyzed to provide feedback on the success of the degree program in achieving the desired student outcomes.

Semester: _____ **Number of students being evaluated:** _____ **Course Section:** _____

Course Objective	(1) Marginal	(2) Adequate	(3) Competent	(4) Proficient	N/A
For each of the B.S. program learning objectives below, score the students' performance as appropriate when evaluating their work.	Is able to perform the skill with significant difficulty or with outside help.	Is able to perform the skill on their own but the work has significant errors requiring correction.	Is able to perform the skill on their own with no significant errors requiring correction.	Is able to perform the skill on their own with no errors.	
An ability to apply knowledge of computing and mathematics appropriate to the computer science program and to the discipline *Evaluate student programs and/or papers and/or proofs*					
An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution *Evaluate student programs and/or papers*					

Course Objective	(1) Marginal	(2) Adequate	(3) Competent	(4) Proficient	N/A
For each of the B.S. program learning objectives below, score the students' performance as appropriate when evaluating their work.	Is able to perform the skill with significant difficulty or with outside help.	Is able to perform the skill on their own but the work has significant errors requiring correction.	Is able to perform the skill on their own with no significant errors requiring correction.	Is able to perform the skill on their own with no errors.	
An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs *Evaluate student programs and/or papers*					
An ability to function effectively on teams to accomplish a common goal *Evaluate student programs and/or papers and/or discussion and/or presentations*					
An understanding of professional, ethical, legal, security and social issues and responsibilities *Evaluate student discussion and/or papers*					
An ability to communicate effectively with a range of audiences *Evaluate student papers and/or presentations*					
An ability to analyze the local and global impact of computing on individuals, organizations, and society					

Course Objective	(1) Marginal	(2) Adequate	(3) Competent	(4) Proficient	N/A
For each of the B.S. program learning objectives below, score the students' performance as appropriate when evaluating their work.	Is able to perform the skill with significant difficulty or with outside help.	Is able to perform the skill on their own but the work has significant errors requiring correction.	Is able to perform the skill on their own with no significant errors requiring correction.	Is able to perform the skill on their own with no errors.	
Evaluate student papers and/or discussion					
Recognition of the need for and an ability to engage in continuing professional development *Evaluate student papers and/or discussion*					
An ability to use current techniques, skills, and tools necessary for computing practice *Evaluate student programs and/or papers*					
An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices *Evaluates student proofs and/or papers*					
An ability to apply design and development principles in the construction of software systems of varying complexity *Evaluate student programs*					

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(l)	(j)	k		
		An ability to apply knowledge of computing and mathematics appropriate to the computer science program and to the discipline. *Evaluate student programs and/or papers and/or proofs*	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution. *Evaluate student programs and/or papers and/or proofs*	An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs. *Evaluate student programs and/or papers*	An ability to function effectively on teams to accomplish a common goal. *Evaluate student programs and/or papers and/or discussion and/or presentations*	An understanding of professional, ethical, legal, security and social issues and responsibilities. *Evaluate student discussion and/or papers*	An ability to communicate effectively with a range of audiences. *Evaluate student papers and/or presentations*	An ability to analyze the local and global impact of computing on individuals, organizations, and society. *Evaluate student papers and/or discussion*	Recognition of the need for and an ability to engage in continuing professional development. *Evaluate student papers and/or discussion*	An ability to use current techniques, skills, and tools necessary for computing practice. *Evaluate student programs and/or papers*	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices. *Evaluates student proofs and/or papers*	An ability to apply design and development principles in the construction of software systems of varying complexity. *Evaluate student programs*		
CS1113	Computer Science I		1	2					1	1		2	*	1: light
CS2113	Computer Science II	1	2	2						1	2	2	*	2: heavy
CS2433	C/C++ Programming		2	2						1		2	*+	
CS3363	Organization of Programming Languages	2		2									*	
CS3443	Computer Systems		1										*	
CS3513	Numerical Methods for Digital Computers		1								2		*	
CS3613	Theoretical Foundations of Computing	2	1								2		*	
CS3653	Discrete Mathematics		2								2		*	
CS4323	Operating Systems I	2	2	2						1	2	1	*	
CS4343	Data Structures & Algorithm	2	2	2						1	2	2	*	
CS4883	Social Issues in Computing					2	2	2					*	
CS2351	UNIX Programming													
CS4143	Computer Graphics	2	2	2					2	2		2		
CS4153	Mobile Applications Development	2	2	2	2	1	2	2	2	2		2		
CS4173	Video Game Development	2	2	2	2				2	2		2		
CS4183	Video Game Design	2	2	1					2	2				
CS4243	Computer Security	2	2	1	2	1	2	2	2	2				
CS4273	Software Engineering	2	2	2	2	1	2	1	2	2	1	2		
CS4283	Computer Networks	2	2	2	2		1	2	2	2		2		
CS4433	Database Systems	2	2	1	2	1	1	1	2	2	1	2		
CS4793	AI	2	2	2	2	1	1	2	2	2		2		

* core course
\+ won't be core