



**Student Outcomes**

- a. An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- c. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- d. An ability to function effectively on teams to accomplish a common goal.
- e. An understanding of professional, ethical, legal, security and social issues and responsibilities.
- f. An ability to communicate effectively with a range of audiences.
- g. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
- h. Recognition of the need for and an ability to engage in continuing professional development.
- i. An ability to use current techniques, skills, and tools necessary for computing practice.
- j. 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.
- k. An ability to apply design and development principles in the construction of software systems of varying complexity.

<p><b>Major Topics Covered</b> (Approximate Course Hours)</p> <p>3 credit hours = 37.5 contact hours 4 credit hours = 50 contact hours</p> <p>Note: Exams count as a major topic covered</p>	HTTP and the TCP-IP protocols	2
	HTML and Cascading Stylesheets	2
	Test-driven development	3
	Java Server Pages	3
	JavaBeans	4
	Expression language	2
	Java Standard Tag Library	3
	Java Servlets	2
	Model-View-Controller development	3
	Database design and Web application	2
	Database programming	2
	Web application development on servers	4
	Logging and Filtering	3
	Web services and Service-Oriented Architecture	3
	Exception handling	3
	Client-side scripting	6
Tests	3	

**Assessment Plan for this Course**

Each time this course is offered, the class is initially informed of the Course Outcomes listed in this document, and they are included in the syllabus. At the end of the semester, an anonymous survey is administered to the class where each student is asked to rate how well the outcome was achieved. The choices provided use a 5-point Likert scale containing the following options: Strongly agree, Agree, Neither

agree or disagree, disagree, and strongly disagree. The results of the anonymous survey are tabulated and results returned to the instructor of the course.

The course instructor takes the results of the survey, combined with sample student responses to homework and final exam questions corresponding to course outcomes, and reports these results to the ABET committee. If necessary, the instructor also writes a recommendation to the ABET committee for better achieving the course outcomes the next time the course is offered.

**How Data is Used to Assess Program Outcomes**

Each course Learning Outcome, listed above, directly supports one or more of the Student Outcomes, as is listed in "Relationships between Learning Outcomes and Student Outcomes". For CSCI 4300, Student Outcomes (a), (b), (c), (d), (f), (i), (j), and (k) are supported.

**Course Master  
Course History**

Dr. Daniel Everett

01/2007 Course Approval in CAPA

02/2012 Course Information Sheet Prepared

12/7/2012 Course added to BS-CS Teamwork Requirement block