

## Getting the most out of CS I

The instructor defines learning objectives for a course. The student defines the student's goals while taking a course. Possible goals are:

- To form a better understanding of a topic
- To prepare for another course
- To obtain an acceptable or high grade

### Understanding

This instructor recommends reading the syllabus, the slides, the textbook, and handouts.

*Syllabus* summarizes the instructor's view of the material and how to master it. *Slides* summarize the material that is considered most important. *Textbook and handouts* present and explain in detail what is important to the instructor and the textbook author.

To master course-length material it is considered necessary to read extensive text about the material, to participate in classroom discussion, including asking and answering questions, and to solve problems about the material.

College-level learning requires *critical thinking and problem solving*. This includes basing oneself on a body of knowledge and facts, applying and reasoning about the facts, and relating the facts to each other.

The course materials provided in this course include study questions and answers to some study questions. The purpose of the study questions is to give students a sampling of the kinds of knowledge and reasoning required in the course. By trying to answer questions and succeeding, the student can obtain a high confidence level. By failing, the student can get an idea of what material to study some more in order to master it. Studying these questions is no substitute for studying other course material, because study questions refer to only part of the course material.

Students are encouraged to question the views of experts and others, including the textbook author, other authors, the instructor, and each other. When questions or suggested answers seem incorrect or are hard to understand, students should question these.

This course has *factual* content and *problem-solving or critical-thinking* content. The two are related but are assessed in different ways.

### Grades and assessment

*Factual* knowledge is assessed both by applying it in problem solving and by showing it directly in answers to short-answer or multiple-choice questions. For each topic, there is a short factual quiz of ten or fifteen questions. The quiz is in class and closed book. Students are expected to know some basic facts related to important concepts without having to look them up. Students are not expected to memorize trivial details.

*Critical-thinking or problem-solving content* is assessed by assignments and responses to essay questions. Some assignments are short, others long; some are individual and others are for groups to discuss.

Scores for all quizzes and assignments are posted in detail. Each longer-answer question or assessment criterion has a weight, and the weights of the parts of each quiz or assignment add up to 100. For each longer-answer question or assessment criterion, a number from 0 to 1 is posted at the Blackboard Gradebook, 1 meaning a complete and flawless answer. The numbers for each answer or criterion are multiplied by its weight, and the weighted scores added, with a resulting score of up to 100 for each quiz or assignment. 95 translates to A, 90 to A-, etc.

If an assignment has five questions, for example, and the weights are 30, 20, 20, 20, 10, and a student's scores on the five questions are 1, 1, 1, 1, and 0.5, then the overall score for the assignment is 95.

Students are encouraged to consult or collaborate with anyone in order to understand material. Students may help each other with assignments without dictating or writing answers or part of answers for each other. Rules of honor in any school are to quote whenever using the words of others and to acknowledge collaboration and the sources of all information used. Presenting others' words as one's own is called plagiarism. No collaboration is permitted during quizzes or exams.