Getting the most out of Intro to IT

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

The 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 listen to classroom lecture and discussion, including asking and answering questions, to answer questions about the material in writing, and to solve problems related to the material.

College-level learning requires *critical thinking and problem solving*. This includes basing oneself on a body of knowledge and facts, 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 multiple-choice 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.
Fluency with information technology (FIT)

Lawrence Snyder asserts that students “do not need rudimentary instruction in double-clicking and resizing windows. Rather, they need to be taught to be confident, in-control users of IT. They need to know how to navigate independently in the ever-changing worlds of information and technology, to solve their problems on their own, and to be capable of fully applying the power of IT tools in the service of their personal and career goals. They must be more than literate; they must be fluent with IT” (Fluency with Information Technology, Addison Wesley, 2004). In this course you will learn to learn about aspects of IT that don’t exist today.

Fluency with IT includes “skills, concepts and capabilities.” Examples are the skill of using a work processor to format a table, the concept of a stored-program computer, and the capability to fix problems in a poorly designed collection of data. Objectives of FIT are to enable efficient use of computers and to prepare the student for lifelong learning in IT.

Some comments about learning

According to Deborah McMakin of FSC, students enter the college with any of several different views of learning, including as received knowledge (experts provide knowledge that is to be remembered); as multiplicity (experts disagree); as constructed knowledge (active, collaborative learning).

This instructor expects students to construct their own knowledge, with guidance and support from the instructor, course materials, and other students. Furthermore, for many problems in this course, several good solutions exist, not just one.

This course will proceed using the constructed knowledge approach. Learning will be primarily by doing and discussing – solving problems and exchanging ideas about problems and issues, based on a common set of concepts and basic items of knowledge.