

Linfield College**Division of Continuing Education****DCE CSC 101 Fundamentals of Information Systems Technology
On-Line Syllabus****Credits:** 3**Instructor:** Ed Smith**Email:** esmith@linfield.edu**Required Textbook:** How Computer Programming Works, by Daniel Appleman**Handout (to be mailed):** Operating Systems and Utility Programs**> EARLY ASSIGNMENT: Please read Part I and Part II of the textbook. <****Course Description:**

This is a broad overview of Computer Science designed to provide students with an understanding of various Computer Science concepts. Topics include: hardware concepts, operating systems and networks, algorithm design for problem solving, programming language concepts, introduction to Object-Oriented programming model. No background in Computer Science is assumed or expected.

This is **NOT** a course on how to use computers or computer software. Since this is an online course, the basic ability to "get around" a PC is necessary (such as how to turn it on and off, use the internet and a web browser, send and receive email).

The online course you are taking is an online version of a similar course taught in the classroom. The lack of a classroom and an instructor in front of you should not be seen as a hindrance to communication! Please feel free to email the instructor about any issue you have with this class: esmith@linfield.edu.

Prerequisites: NONE**Course Objectives:**

- Describe the basic components of a computer
- Create algorithms for solving simple problems

- Use pseudo-code to implement algorithms
- Discuss the representation of data and data structures and their uses
- Discuss essential programming language concepts, such as looping and conditional control
- Discuss Object-Oriented programming model

Schedule:

The course contains four Sections.

Each of the first three Sections contains an Assignment which must be completed by the end of the Section. At the end of the first three Sections, there is a Quiz. At the end of the fourth Section, there is a Final Exam. The Quizzes and Final can be taken once during their open period.

Methods of Evaluation:

Grading for this course will be based on assignments, quizzes, and a final exam.

Assignments (3): 30%

Quizzes (3): 30%

Final (1): 40%

TOTAL: 100%

Assignments are taken using the online system. **Late assignments will not be accepted.** Make-up exams will not be given without prior arrangement as stated in the college catalog.

Quizzes will be released online for 46 hours. During that period, you may take the exam once. You have **60 minutes** to complete the exam. There is a Quiz at the end of each of the first three sections.

The Final is given at the end of the fourth section. The Final will be released online for 70 hours at the end of the class. During that period, you may take the exam once. You have **60 minutes** to complete the exam.

All Quizzes and the Final are open book, but not open-neighbor. It is expected you will take the exam by yourself without help from others.

These are the important dates to remember:

- Assignment 1 - due June 27

- Quiz 1 - open June 28 through June 29
- Assignment 2 - due July 11
- Quiz 2 - open July 12 through July 13
- Assignment 3 - due July 25
- Quiz 3 - open July 26 through July 27
- Final - open August 18 through August 21

Grading scale:

A	C+
A-	C
B+	C-
B	D
B-	F

Incompletes:

A grade of Incomplete (I) is given only in emergency situations. The student must request an Incomplete in writing and must obtain my permission. All uncompleted work must be completed within the time limits I set. If you simply don't turn in the final assignments or the final exam, your course grade will be calculated with the missed portion counting for 0 points.

Academic Honesty:

Cheating and plagiarism will not be tolerated. Any student found to be engaging in either of these activities at any point in the course will receive a failing grade for the entire course and may be subject to further college sanctions. (See college catalog for more details.)

Difficulties:

If you find you are having problems with the class (the use of the software, attendance, keeping up with the reading, fitting into a group), please let me know. Please communicate your difficulties! The last weekend of the course is not the best time to ask for help.

Students with Disabilities:

Students with documented disabilities who may need accommodation, who have any emergency medical information an instructor should know, or who require any special arrangement, should meet with the instructor as early as possible, no later than the first week of class.

Course Outline and Schedule:

- Section 1 (approx. two weeks) - introduction to computers,

- computer data, binary and boolean math, computer hardware
- Assignment 1 due at the end of Section 1
- Quiz 1
- Section 2 (approx. two weeks) - hexadecimal math, text and pointer data, introduction to programming concepts (variables, types, statements, operators, expressions, loops, conditionals, functions)
- Assignment 2 due at the end of Section 2
- Quiz 2
- Section 3 (approx. two weeks) - complex data structures (arrays, structures, stacks, queues, linked lists), introduction to algorithms (searching and sorting)
- Assignment 3 due at the end of Section 3
- Section 4 (approx. three weeks) - operating systems concepts, compilers and interpreters, event-driven systems, object-oriented programming
- Final exam due by last day of class