

## **CIS 22B Intermediate Programming Methodologies in C++**

**Credit:** 4.5 units

**Instructor:** Ed Ahrens, ahrensedward@fhda.edu

### **Description:**

A systematic approach to the design, construction, and management of computer programs, emphasizing design, programming style, documentation, testing and debugging techniques. Strings, multidimensional arrays, structures, and classes. Pointers: their use in arrays, parameters, and dynamic allocation. Introduction to linked lists.

Student Learning Outcomes:

**At successful completion of the course students should be able to:**

- Read, analyze and explain intermediate level C++ programs.
- Design solutions for intermediate level problems using appropriate design methodology incorporating intermediate programming constructs.
- Create algorithms, code, document, debug, and test intermediate level C++ programs.

**Text:** zyBook ISBN: 978-1-394-02619-7 This is an interactive e-text; link provided in Canvas

**Working Together:** Working together on assignments is permitted. However, each person is expected to complete his/her own computer work. Identical work may receive a zero grade.

**Scholarly Conduct:** Please note, the DeAnza College Schedule, in the section titled "Academic Integrity," states that the submission of work which is not the product of a student's personal effort, or work which in some way circumvents the given rules and regulations, will not be tolerated. Any infraction of Academic Integrity will automatically result in a zero grade for the work and may result in a failing grade for the course.

### **Advisory Preparation:**

Successful completion of the following:  
CIS 22A, or equivalent

**Policies:**

1. Students may arrange for a P/NP option in Admissions and Registration Office
2. A 10% penalty will apply for late labs
3. Make up exams may only be scheduled in advance, and only in exceptional circumstances.
4. **I will not drop you!** It is up to you to initiate the drop process.

**Exams:** Exams are multiple choice, fill in the blanks, T/F and/or short programming exercises. No use of external help other than the e-text and personal notes. That is, no use of online resources, proxies or personal assistance. Exams are administered through Canvas and are timed events.

**Final grade:**

A+	98% through 100%
A	92% through 97%
A-	90% or 91%
B+	88% or 89%
B	82% through 87%
B-	80% or 81%
C+	78% or 79%
C	70% through 77%
C-	is not given
D+	68% or 69%
D	62% through 67%
D-	60% or 61%
F+	is not given
F	59% or less
F-	is not given

**Labs are submitted electronically, through Canvas, due by 11:59 pm on the day assigned. See the class lecture schedule on Canvas. Late labs lose 10%. Any submittal past the due date and time is late, no exceptions.**