Course Syllabus

COSC 2320
C Programming II

Course Description:

Further applications of programming techniques in the C programming language. Topics may include file access methods, data structures and modular programming, program testing and documentation, and other topics not normally covered in an introductory computer programming course.

Semester Hours Credit: 3

Lecture Lab Hours: 2 / 4

Prerequisite: COSC 1320

Text: *C Programming A Modern Approach second edition* K. N. King Norton

Student Learning Outcomes:

Upon successful completion of this course, students will:

1. Apply the techniques of structured (functional) decomposition to break a program into smaller pieces.
2. Describe the mechanics of parameter passing and demonstrate the difference between call-by-value and call-by-reference parameter passing..
3. Discuss the importance of algorithms in the problem-solving process,
4. Identify the necessary properties of good algorithms, and create algorithms for solving simple problems.
5. Use pseudo code or a programming language to implement, test, and debug algorithms for solving simple problems.
6. Discuss the representation and use of primitive data types and built-in data structures.
7. Explain the reasons for using different formats to represent numerical data.
8. Explain basic concepts of secure programming functions.
9. Discuss the properties of good software design.
10. Describe the phases of program translation from source code to executable code and the files produced by these phases; explain the software life cycle and its phases, including the deliverables that are produced.
11. Identify and describe the properties of a variable such as its associated address, value, scope, persistence, and size.
12. Explain how abstraction mechanisms support the creation of reusable software
13. Understand advanced pointers
14. Understand pointers as applied to arrays

CORE VALUES

Learning Innovation Excellence Leadership Diversity Respect Service Integrity Collaboration Communication
At all times, in all ways, the student is at the heart of all we do.

15. Understanding of advanced pointers and enumerated types and structures.

Evaluation Methods:

1. Tests
2. Projects
3. Assigned labs
4. Attendance

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services, programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g)

Special Needs Services: Students with special needs, including physical and learning disabilities, who wish to request accommodations in this class should contact the Counseling Office as soon as possible to make arrangements. In accordance with federal law, a student requesting accommodations must provide documentation of disability to the Special Needs Counselor. For more information, please go by the Counseling Office, or contact: Dee Berthold at deedee@coastalbend.edu in Alice, Amanda Barrera at amanda@coastalbend.edu in Kingsville, and Lindsey Hagen at lhagen@coastalbend.edu in Beeville.

Academic Dishonesty: Each student is charged with notice and knowledge of the contents and provisions of Coastal Bend College's rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. (See the Student Handbook for further explanation of Scholastic Dishonesty.)

Copyright Law and Intellectual Property Rights Policy: Copyright is the right of an author, artist, composer or other creator of a work of authorship to control the use of his or her work by others. Protection extends to literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial and graphic works, sculpture, motion pictures and other audiovisual works, sound recordings and architectural works. Generally speaking, a copyrighted work may not be reproduced by others without the copyright owner's permission. The public display or performance of copyrighted works is similarly restricted. Generally, the unauthorized reproduction, performance or distribution of a copyrighted work is copyright infringement and may subject the infringer to civil and criminal penalties. The Fair Use Doctrine outlines exceptions to this Law and is outlined in Coastal Bend College Policy, CT (Legal).

Coastal Bend College, its faculty, students and employees must comply with Copyright Law. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy CT (Legal) and CT

(Local). Questions regarding this information should be directed to the Librarian of the College or the Public Relations Office.

Intellectual Property: Student /Third Party Works: Rights to copyrightable or patentable works created by a student or a third party, that is, not a College District employee, shall reside with the author/ creator.