

Course Syllabus
COSC 1315

Course Description: ACGM Description Introduction to computer programming for solving a variety of problems. This course is intended for non-computer science and non-computer engineering majors. Emphasis on the fundamentals of design, development, testing, implementation, & documentation of computer programs. Includes problem solving with structured techniques and algorithms using pseudo code and/or graphical representations.

Semester Hours Credit: 3

Lecture/Lab Hours: 2/2

Prerequisite: None

Textbook(s): The Arduino Starter Kit (ARDUINO.ORG/STARTERKIT¹)

Course Outcomes:

1. Design and develop algorithms to solve problems.
2. Demonstrate a fundamental understanding of software development methodologies, such as modular design, pseudo code, flowcharting, and structure charts.
3. Demonstrate appropriate design, coding, testing, debugging, and documenting of computer programs that implement problem specifications and requirements.
4. Apply computer- programming concepts to new problems or situations.

Evaluation Methods:

1. Lecture Quizzes
2. Lab Projects
3. Group Projects

Student Learning Outcomes:

1. Students will successfully identify and apply the correct type of structure to solve a series of programming problems using the three structures. (Algorithms and structured programming)
2. Students will design, code, test, debug and modify a computer program using the open source Arduino platform.

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)

¹ Students may partner and use one kit with two students; or they may work on their own. (no groups of more than 2)



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, contact: in Alice at salice@coastalbend.edu; Beeville at sdbeeville@coastalbend.edu; Kingsville at sdkingsville@coastalbend.edu; and Pleasanton at sdpleasanton@coastalbend.edu

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See at [FLB \(Local\)](#) and [FM \(Local\)](#)

See the [Student Handbook](#) for further explanation of Scholastic Dishonesty.

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NOTE: The College website (www.coastalbend.edu) serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.

Updated January 2, 2017 by Dr. Elizabeth Simonson, Computer Science Professor