

**MASTER SYLLABUS**

**ELET-160 Programming for Engineering Technology**

**Course Lecture-Lab-Credit and/ Contact Hours**: 2-3-3 / 5

**Course Maximum Enrollment:** 15

**Lab Fee**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Special Facility or Equipment Needs/Safety Rules and Issues**:

This course requires a computer lab environment. (Lab equipment, Calculator and Computer Lab Rules)

**Lab Fee:** None

**Course Title:** Programming for Engineering Technology

**Course Prefix and Number:** ELET-160

**Course Description**:

This course introduces the student to programming techniques and methods as they relate to electrical engineering technology by utilizing the BASIC and VISUAL BASIC programming languages.

**Pre- and/or Co-requisites**:

Pre-requisite: MATH 130

**Course Goal**:

Students will develop an algorithm and use it to create a program.  They will outline the fundamental program control structures and apply them in program development.  Students will show mastery of the concepts and fundamentals of object-oriented programming and apply them in creating Visual Basic applications.

**Student Learning Outcomes**: A student who successfully completes this course will be able to:

1. Demonstrate knowledge of the courses required to complete the Electrical-Electronics Engineering

Technology program.

1. Learn to use college-wide resources.
2. Explain the relationship between the programmer and the user.
3. Summarize the program development life cycle.
4. Illustrate the “Top Down” Design Method.
5. Develop an algorithm and use it to create a program.
6. Employ basic programming skills.
7. Apply the concepts of structured programming and object-oriented programming.

**Course Content**:

1. Overview of Computer Science and Programming.
2. Algorithms and Programs.
3. Top Down Design Method.
4. Introduction to Structured Programming.
5. Software environment.
6. Control Structures in BASIC.
7. Introduction to Object Oriented Programming.
8. Programming in Visual Basic.

**Texts and Readings**:

Microsoft Visual Basic 6, Complete Concepts and Techniques by Cashman or similar textbook

Other: Handouts; scientific calculator; dictionary.

 **Assessment**:

Q-Basic Programming Assignments/Quizzes

Exam #1

V-Basic Programming Assignments/Quizzes

Exam #2

In-class participation, attendance

**ELET Student Outcomes Realized:**

1. Apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities.
2. Apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge.
3. Identify, analyze, and solve narrowly defined technical problems.

This course contributes 3 (of 42) technical content credit hours.

1. Apply the knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline.
2. Design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline.
3. Conduct standard tests, measurements, and conduct, analyze and interpret experiment results.

**DISABILITY STATEMENT:** It is the general policy of Delgado Community College to provide an equal opportunity for academic success to all students. Reasonable accommodations for a student with a disability will be made provided the student has self-identified with the Office of Disability Services and has provided the required documentation. Instructors will appropriately modify their methods of instruction, course and examination requirements and general procedures to accommodate the special needs of the student provided the academic integrity of the course or examination is not violated and the accommodation does not jeopardize the health and welfare of all students. Accommodations will not be made without the letter of accommodation from the Office of Disability Services. {[Contact Information](http://www.dcc.edu/student-services/advising/disability-services/faculty-staff-resources/syllabi-statement.aspx) is included on Course Syllabus and is not listed on the Master Syllabus. The Master Syllabus statement ends prior to bracketed sentence.}

**Academic Honesty Statement:** Delgado Community College requires that students adhere to the highest standards of academic integrity. Students are entrusted to be honest in every phase of their academic life and to present as their own work only that which is genuinely theirs. Cheating, plagiarism, violation of test conditions, complicity in dishonest behavior, or other falsification of academic work is a serious breach of College standards.

Plagiarism is defined as any attempt to represent the work of another as one's own original work. More specifically, plagiarism is the direct appropriation of the language, thoughts, or ideas of another--either literally or in paraphrase--without appropriate notation on the source and in such fashion as to imply that the work is one's own original work.

Depending upon the nature of the case, a student guilty of academic dishonesty may receive penalties ranging from a grade of "F" for the work submitted to expulsion from the College. Such penalties may be of both an academic and disciplinary nature.  Please see the *College Catalog* for additional information.

**Title IX Statement:** Delgado Community College is committed to creating and maintaining an environment in which sexual violence against men and women is not tolerated. Intervening in such instances helps to foster a safe environment for all, while sending a message that this kind of behavior will not be tolerated and is unacceptable in our community. As part of its commitment to providing an educational environment free from discrimination, Delgado Community College complies with Title IX of the Education Amendments, which prohibits discrimination and harassment based upon sex in an institution’s education programs and activities. Title IX prohibits sexual harassment, including sexual violence, of students at Delgado Community College sponsored activities and programs whether occurring on-campus or off-campus. {[Contact Information](http://www.dcc.edu/title-ix/default.aspx) included on Course Syllabus and is not listed on the Master Syllabus. The Master Syllabus statement ends prior to bracketed sentence.}

 *AA-1503.1A Master Syllabus Format Approved:*

*Curriculum Committee 9/29/17, Vice Chancellor for Academic Affairs 11/20/17*