Wake Technical Community College
Computer Technologies Division Syllabus

Course Number: CIS-115
Course Title: Introduction to Programming and Logic

Textbook Information

(Opens in a new window)

http://www.waketech.edu/programs-courses/credit/computer-technologies/course-books

Online and Hybrid Course Information
*Students in Curriculum Education Online and Hybrid courses **must complete the Course Entry Quiz** during the first 10% of the course. The quiz can be found on the course's Blackboard site on the first day of class. Students who fail to complete the quiz within the required time frame will be immediately marked as "NA" (Never Attending) and **dropped from the class**.*

Course Description:

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

Software Used to Complete Coursework:

Python and PyCharm

Other Required Equipment:

None

Special Instructions:

If you take this course online, you must have a computer running Windows, Mac OSX or Linux. You need to install Python and PyCharm in your computer. You will receive installation instruction at the beginning of the course.

Credit Hours:	Three (3) Semester Hours
Pre-requisites:	Take one set: Set 1: DMA-010 DMA-020 DMA-030 DMA-040 DRE-098 Set 2: MAT-121 DRE-098 Set 3: MAT-171 DRE-098
Co-requisites:	None

Course Goals:

1. Introduce problem solving techniques in a programming environment
2. Use appropriate control structures to design algorithmic solutions
3. Create and use variables and other tools to store data
4. Compose program instructions to implement an algorithmic solution

Student Learning Outcomes:

Upon successful completion, students will be able to demonstrate (through completion of class work and assignments):

Upon successful completion, students will be able to demonstrate (through completion of class work and assignments):

- Analyze a problem by determining input and output items of the programming solution
- Design an algorithmic solution to solve a problem
- Create variables of appropriate types to store program data
- Formulate program instructions to perform computations
- Design and use selection structures in a program
- Design and use repetition structures in a program
- Create arrays to store large volume of data
- Compose functions and integrate them in a program

Grading:

- **25% Midterm Exam -** Covers everythign taught before midterm exam
- **35% Final Exam -** Covers everything taught in the course
- **25% Lab -** Weekly lab assignments
- **15% Other -** Attendance, class participation, quizzes. Class exercises, etc.

Subject Areas:

Note: The order in which these subject area are presented may be changed/modified by your instructor. This list is offered only as a guide. The pace of each class differs according to the instructional needs of the students in the class. Always consult with your instructor.

- Designing Programs
- Input, processing, output
- Variables
- Decision Structures
- Repetition Structures
- Functions
- Strings
- Data Structures

Employability Skills:

Each student will be evaluated based on whether they demonstrate the skills that make them employable in their field. These skills may include, but are not limited to: promptness, presence, verbal articulation of subject matter concepts, quality of written communications, respect for their instructor, respect for their classmates, honorable presentation of original work, gracious acceptance of constructive criticism, attention to detail, and a dedication to excellence in their academic goals. These employability skills are direct reflections of the Wake Tech's Core Values. Ask your individual instructor about how employability skills will affect your grade, and your ability to work in your chosen field once you have completed your academic goals.

The Core Values of Wake Technical Community College

(Opens in a new window)

https://www.waketech.edu/about-wake-tech/core-values

Classroom Policies:

- Students are responsible for all of the information presented in the Wake Technical Community College Student Handbook
- Please note that computers are to be used at all times for official course purposes.
- Use of computers for general web surfing, e-mailing, chat room discussions, social networking, and any other non-course related task is forbidden. Violation of this rule will result in a grade deduction and possible loss of computer privileges.
- The college forbids the use of all audible electronic equipment during instructional time.
- Forbidden devices include but are not limited to: cell phones, smart phones, MP3 players, tablets, and PDAs.
- If you miss a lecture or arrive late, you are responsible for the material presented, handouts distributed, and any announcements made that day. The instructor will not provide notes for missed classes.

Wake Technical Community College Student Email Policy

(Opens in a new window)

http://www.waketech.edu/student-services/catalog/campus-policies-and-procedure

Disability Support Services (DSS)

Disability Support Services (DSS) is available for students who require academic accommodations due to any physical, psychological, or learning disability. To determine eligibility, contact the office at 919-866-5670 or 141 Montague Hall, Main Campus or Building A 317, Northern Campus. Wake Technical Community College strives to make its websites accessible and usable for people of all abilities. We

continue to make improve- ments and enhancements to our website accessibility features. If you find a feature that is not accessible, or if you have an immediate need, please contact accessibility@waketech.edu.