I. Instructor Information:
   Name: Mike McMillan
   Telephone: 812-2372
   E-mail: mmcmillan@uaptc.edu
   Office Location: IT 306I
   Class Times: MW 12:15 – 1:30
   Office Hours: Monday 2-4pm, TR 2-4pm, W 3-4pm, Friday By appt.

II. Catalog Description:
   An introductory course in computer science for Computer Science majors in the design
   of computer software systems and an introduction to programming in the environment
   of a contemporary operating system. Topics include data types and variables, input and
   output, control structures, functions, simple data structures (vectors and arrays), and
   an introduction to object-oriented programming. 3 lecture hours, 2 lab hours. (4 credit
   hours/special course fee) (F & S, D & H)

III. Course Resources:
   Required Resource: Rooks Guide to C++, PDF version. Link to online version:
   Supplemental resources: Videos, lecture notes, and links to tutorial sites as provided by
   the instructor.

IV. Course Learning Outcomes
   Students completing this course will understand:
   • Explain the basics of how a computer works, then write a first program
   • Use standard input and output, and understand common syntax errors
   • Declare and initialize variables with valid identifiers
   • Use a variety of integer data types and the concept of overflow. Use floating-point,
     character, and string data types
   • Convert decimal to binary and vice-versa
   • Cast between data types
   • Develop programs that branch based on user input
   • Write expressions with relational and equality operators and develop expressions with
     logical operators
Use multiple branches for more complex programs
Use the Boolean data type to store results of conditional statements
Access elements in vectors and arrays
Understand memory usage for single and multi-dimensional arrays
Write a first function, then return from a function and parameterize a function
Learn reasons to use a function
Combine functions with branches and loops and use incremental development with functions
Know how to pass-by-reference to functions and to overload user-defined functions
Write structs for grouping data, combine structs and functions, then combine structs
Write classes that group functions and data
Introduce abstract data types
Explain the reasons for using pointers

V. Attendance Policy:
You are expected to attend every class. Attendance will be taken and excessive absences can affect your course grade.

**Agencies granting financial assistance may be notified of the violation of the attendance policy by students receiving financial aid.**

VI. Classroom Policies:
The Pulaski Technical College Student Handbook rules and regulations will be enforced in this class at all times.

VII. Grading:
Letter grades will be based on the following scale:

- 90 to 100 %  A
- 80 to 89 %  B
- 70 to 79%  C
- 60 to 69%  D
- 0 to 59%  F

Your course grade will be determined by weekly programming quizzes and assignments, 2 or 3 longer programming projects, and exams. Programming assignments and projects must be turned in on time to receive full credit. I will drop your two lowest assignment grades. Generally, programming assignments and programming projects will be due on Sundays (all
times 11:59 pm). There will be three exams – at the one-third point, at the two-thirds point, and a final exam. Each exam will be worth 100 points and will be short answer exams.

VIII. Academic Integrity

It is expected that all students who attend Pulaski Technical College conduct themselves in a manner appropriate for the college experience. Academic integrity is a vital component of collegiate behavior. The student handbook states: “The gaining of knowledge and the practice of honesty go hand-in-hand.”

The handbook also states, “The responsibility and authority of initiating discipline arising from violations of the rules against dishonesty during the process of the course are vested in the instructor of that course.”

My specific policy for this course is that the work you do for this course must be your own. You cannot copy assignments, quizzes, programs, or parts of programs from other students or from the internet. If you are caught doing this, you will be given a 0 for the assignment, project, or exam. If you are caught doing this a second time, you will be given an F for the course.

The complete Academic Integrity Policy can be found in the PTC Student Handbook.

IX. Accommodation Policy:

Services for Students with Disabilities:

Pulaski Technical College is committed to fulfilling all federal requirements as stated in the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Accommodations are available to students who have documented disabilities. Students who request accommodations must register with the Coordinator of Disability Services in Counseling Services (501-812-2220 or www.pulaskitech.edu) prior to the semester of planned enrollment, and must provide recent documentation of medical, educational, and/or psychological records.

Students who need accommodations should inform the instructor at the beginning of the course. Accommodations will only be provided if the instructor receives a letter of approved accommodations from the Coordinator of Disability Services. Failure to provide sufficient notification may result in a delay of services.

X. Course Evaluations:

Students may be asked to evaluate their instructor and course near the end of the semester. These student evaluations are very important to the improvement in the quality of instruction and course materials. All results are anonymous and shared with the faculty only after the semester is over and grades have been posted.

XI. Information Literacy:
Pulaski Technical College is committed to the Information Literacy Competency Standards for Higher Education as established by the Association of College and Research Libraries and endorsed by the National Forum on Information Literacy. Therefore, all courses will incorporate an information literacy component so that, by graduation, all students will be able to recognize the need for information, then locate, evaluate, synthesize, and communicate information in an ethical manner. Information literacy encompasses critical thinking, research, media, technology, health, business, and visual literacy skills to produce lifelong learners who can make informed decisions in the workplace and in their personal lives.

XII Tentative Course Schedule

Week 1 – Getting Started
Week 2 – Variables, Literals, Constants, Assignments
Week 3 – Input/Output
Week 4 – Arithmetic, Comments
Week 5 – Data types, Conversions, Test 1
Week 6 – Conditionals
Week 7 – Strings
Week 8 – Loops
Week 9 – Loops continued
Week 10 – Arrays
Week 11 – Spring Break
Week 12 – Arrays continued, Test 2
Week 13 – Blocks, Functions, Scope
Week 14 – Functions continued
Week 15 – Pointers
Week 16 – Pointers continued
Week 17 – Wrap-up
Week 18 – Finals, Test 3