Student's Name/Initials	/	Date	Teacher's Initials	Date

COMPUTER PROGRAMMING 1 WITH C++
STUDENT PROFILE
COURSE CODE: 5056

DIRECTIONS: Evaluate the student using the applicable rating scales below and check the appropriate box to indicate the degree of competency. The ratings 3, 2, 1, and N are not intended to represent the traditional school grading system of A, B, C, and D. The description associated with each of the ratings focuses on the level of student performance or cognition for each of the competencies listed below.

PERFORMANCE RATING
3 - Skilled--can perform task independently with no supervision
2 - Moderately skilled--can perform task completely with limited supervision
1 - Limitedly skilled--requires instruction and close supervision
N - No exposure--has no experience or knowledge of this task

COGNITIVE RATING
3 - Knowledgeable--can apply the concept to solve problems
2 - Moderately knowledgeable--understands the concept
1 - Limited knowledge--requires additional instruction
N - No exposure--has not received instruction in this area

A. SAFETY AND ETHICS

3 2 1 N

__ __ __ __1. Identify major causes of work-related accidents in offices.
__ __ __ __2. Describe the threat of viruses to a computer network, methods of avoiding attacks, and options in dealing with virus attacks.
__ __ __ __3. Identify potential abuse and unethical uses of computers and networks.
__ __ __ __4. Explain the consequences of illegal and unethical uses of information technologies, e.g., piracy; illegal downloading; copyright violations; licensing infringement; and inappropriate uses of software, hardware, and mobile devices.
__ __ __ __5. Discuss negative social issues related to use of the Internet.
__ __ __ __6. Differentiate between freeware, shareware, and public domain software copyrights.
__ __ __ __7. Identify Internet etiquette.
__ __ __ __8. Discuss computer crimes, terms of use, and legal issues such as copyright laws, fair use laws, and ethics pertaining to scanned and downloaded clip art images, photographs, documents, video, recorded sounds and music, trademarks, and other elements for use in Web publications.
__ __ __ __9. Describe ethical practices in business professions.
__ __ __ __10. Discuss the necessity of safeguarding the confidentiality of business-related information.

B. EMPLOYABILITY SKILLS

3 2 1 N

__ __ __ __1. Identify positive work attitudes, e.g., punctuality, time management, and organization.
__ __ __ __2. Demonstrate positive interpersonal skills, e.g., communication, respect, and teamwork.

C. STUDENT ORGANIZATIONS

3 2 1 N

__ __ __ __1. Explain how related student organizations are integral parts of career and technology education courses.
__ __ __ __2. Explain the goals and objectives of related student organizations.
__ __ __ __3. List opportunities available to students through participation in related student organization conferences and other activities.
__ __ __ __4. Explain how participation in career and technology education student organizations can promote lifelong responsibility for community service and professional development.

D. COMPUTER SYSTEMS

3 2 1 N

__ __ __ __1. Define what a computer is and its purpose.
__ __ __ __2. Define basic computer terminology.
__ __ __ __3. Define basic programming terminology.
__ __ __ __4. Identify basic hardware and software components.
__ __ __ __5. Explain the flow of data and instructions through the computer system.
__ __ __ __6. Identify components of the programming development environment.
__ __ __ __7. Describe the concept of OOP (object-oriented programming).

E. PROGRAM DOCUMENTATION

3 2 1 N

__ __ __ __1. Describe the purpose and value of the program.
__ __ __ __2. Define the input for the program.
__ __ __ __3. Define the output of the program.
__ __ __ __4. Define variables and constants associated with the program using

descriptive names and appropriate data types associated with the program.

__ __ __ __5. Describe the scope of variables.

F. PROGRAMMING DESIGN

3 2 1 N

__ __ __ __1. List in sequence the steps for developing a program.
__ __ __ __2. Develop an algorithm (pseudocode) for a program.
__ __ __ __3. Key the program.
__ __ __ __4. Save the program.
__ __ __ __5. Execute the program.
__ __ __ __6. Debug the program for errors (e.g., syntax, run-time, and logic).
__ __ __ __7. Run the program to test the logical validity of an application program given appropriate data.

G. PROGRAMMING

3 2 1 N

__ __ __ __1. Describe the purpose/function of different objects.
__ __ __ __2. Describe the purpose/function of an event procedure.
__ __ __ __3. Identify correctly written Property assignment statements.
__ __ __ __4. Demonstrate proper code commenting/documentation techniques.
__ __ __ __5. List and define arithmetic, relational, and logical/boolean operators.
__ __ __ __6. Explain operator precedence.
__ __ __ __7. Differentiate between commands and statements.
__ __ __ __8. Write valid variable and constant declaration statements using appropriate data types.
__ __ __ __9. Write valid variable and constant declaration statements using appropriate scope (e.g., local, global, static).
__ __ __ __10.Write a program that will perform calculations on given data.
__ __ __ __11.Write an interactive program that includes features to get input and provide feedback/information (e.g., alerts, messages, input boxes).
__ __ __ __12.Identify different decision structures that control program flow.
__ __ __ __13.Use built-in functions to generate random numbers.
__ __ __ __14.Write a program using accumulators and counters.
__ __ __ __15.Identify different looping/iteration structures that control program flow.
__ __ __ __16.Use built-in properties and functions to manipulate classes and structures (e.g., String, Math).
__ __ __ __17.Describe the conversion from ASCII/Unicode to Hexadecimal and Binary.
__ __ __ __18.Describe the purpose/function of general sub procedures.
__ __ __ __19.Describe the purpose/function of general sub procedures.
__ __ __ __20.Describe the purpose/function of function procedures.
__ __ __ __21.Write a program using one of more general sub procedures and/or functions.
__ __ __ __22.Write a program that passes arguments to another general sub procedure and/or function.