I. TITLE: CSC 101 Introduction to Problem Solving Using Computers

II. COURSE DESCRIPTION AND PREREQUISITE(S): This course is an introduction to problem solving using computers which spans the breadth of issues such as logical reasoning in algorithm development, procedural, object-oriented and event-driven/visual programming languages, web programming, networking concepts, security issues and other pertinent topics regarding the use of a computer to solve real-world problems. The student will be provided with an overall picture of the many areas of expertise in the computing field as they apply to other disciplines as well as an introduction to fundamental programming concepts. This course is intended as the first course for CSIS majors and a course for non-majors who want to learn how to instruct computers to solve problems.

Prerequisite(s): Math ACT score of at least 20 or MAT 097 or higher

III. COURSE OBJECTIVES:

Upon successful completion of this course, a student should be able to
A. use logical reasoning to develop an algorithm involving branching and looping to solve practical problems.
B. create simple programs in a procedural and object-oriented programming language to test algorithms.
C. understand computer security issues.
D. understand basic networking concepts.
E. create web pages using web authoring software and then modify the resulting HTML code.

IV. CONTENT OUTLINE:

A. fundamentals of logic and algorithm development
B. exploration of interdisciplinary real-world problems
C. implementation of algorithms in procedural programming paradigm
D. implementation of algorithms in object-oriented programming paradigm
E. implementation of algorithms in event-driven/visual programming paradigm
F. fundamentals of web page development - generation of HTML code
G. introduction to computer security

V. INSTRUCTIONAL ACTIVITIES: Instructional activities include lecture, discussion/ experimentation, active learning methodologies including teamwork and student projects, quizzes and exams.

VI. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES:


VIII. EVALUATION AND GRADING PROCEDURES: Letter grades will be assigned based upon a combination of examinations, homework assignments, quizzes and attendance. The following shows the weight assigned to each part of the grading.

Exams (3) including the Final - 60%
Attendance - 5%
Quizzes, Homework and Other Assignments - 35%
The following percentage ranges will be used to figure the letter grade:

- 90+ A
- 80 - 89 B
- 70 - 79 C
- 60 - 69 D
- below 60 E

If you miss a quiz, make-up day will be the day of the Final.

**IX. ATTENDANCE POLICY:**
Students are expected to adhere to the MSU Attendance Policy outlined in the current *MSU Bulletin*.

**X. ACADEMIC HONESTY POLICY:**
Murray State University takes seriously its moral and educational obligation to maintain high standards of academic honesty and ethical behavior. Instructors are expected to evaluate students’ academic achievements accurately, as well as ascertain that work submitted by students is authentic and the result of their own efforts, and consistent with established academic standards. Students are obligated to respect and abide by the basic standards of personal and professional integrity.

**Violations of Academic Honesty include:**
- **Cheating** - Intentionally using or attempting to use unauthorized information such as books, notes, study aids, or other electronic, online, or digital devices in any academic exercise; as well as unauthorized communication of information by any means to or from others during any academic exercise.

- **Fabrication and Falsification** - Intentional alteration or invention of any information or citation in an academic exercise. Falsification involves changing information whereas fabrication involves inventing or counterfeiting information.

- **Multiple Submission** - The submission of substantial portions of the same academic work, including oral reports, for credit more than once without authorization from the instructor.

- **Plagiarism** - Intentionally or knowingly representing the words, ideas, creative work, or data of someone else as one’s own in any academic exercise, without due and proper acknowledgement.

Disciplinary action may include, but is not limited to the following:

1) Requiring the student(s) to repeat the exercise or do additional related exercise(s).
2) Lowering the grade or failing the student(s) on the particular exercise(s) involved.
3) Lowering the grade or failing the student(s) in the course.

*If the disciplinary action results in the awarding of a grade of E in the course, the student(s) may not drop the course.*

Faculty reserve the right to invalidate any exercise or other evaluative measures if substantial evidence exists that the integrity of the exercise has been compromised. Faculty also reserve the right to document in the course syllabi further academic honesty policy elements related to the individual disciplines.

A student may appeal the decision of the faculty member with the department chair in writing within five working days. Note: If, at any point in this process, the student alleges that actions have taken place that may be in violation of the Murray State University Non-Discrimination Statement, this process must be suspended and the matter be directed to the Office of Institutional Diversity, Equity and Access. Any appeal will be forwarded to the appropriate university committee as determined by the Provost.

**XI. NON-DISCRIMINATION POLICY AND STUDENTS WITH DISABILITIES:**

**Policy Statement**
Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with
disabilities equal access to participate in all programs and activities. For more information, contact the Executive Director of Institutional Diversity, Equity and Access, 103 Wells Hall, (270) 809-3155 (voice), (270) 809-3361 (TDD).

**Students with Disabilities**

Students requiring special assistance due to a disability should visit the Office of Student Disability Services immediately for assistance with accommodations. For more information, students should contact the Office of Student Disability Services, 423 Wells Hall, Murray, KY 42071. 270-809-2018 (voice) 270-809-5889(TDD).