Suffolk County Community College
Course Outline

Course: CST112 - Introduction to Programming
Semester: Fall 2010
Section: 91394
Instructor: Robert Barta, Assistant Professor
Office: Orient Building Room 227
Phone: 548-3594
Email: bartab@sunysuffolk.edu

Text: Learning Processing
Daniel Shiffman
Morgan Kaufmann Publishers

Supplies: USB Flash Drive or other external storage device (as specified by instructor)

Objectives:
After successful completion of this course, a student will be able to:

- Understand & use structured design techniques as tools to solve simple programming problems.
- Understand & use event procedures, sub procedures, and function procedures.
- Understand & use various programming concepts and constructs including:
  - Constants & variable declarations
  - Event procedures
- Built-in and user-defined sub procedures and function procedures with value and reference parameters
- Arithmetic, Boolean, and string expressions
- Operations including: Input/output; Assignment; If-then, if-then-else, if-then-elseif, and select; Do while, for, and do until loops; Arrays
- Create, edit and delete files
- Use pseudocode and/or flowcharts to demonstrate solutions to algorithms.

Procedures:
At the beginning of each unit of work, the instructor will illustrate respective concepts with concrete examples and discuss them with the students. The instructor will use a combination of techniques, including lectures, visual aids, and lines of questioning to relate the subject matter and encourage discussion and thought among the students. Concepts will then be reinforced and supplemented during lab sessions with assigned problems. A portion of class time will be spent in the microcomputer lab, where assignments involving hands-on experience will be undertaken. Tests will be used as a means to measure each student's level of comprehension.

Student Requirements:
The student must complete all lab projects and assignments, and must demonstrate proficiency on exams and assignments. The student is responsible for all material taught or assigned by the instructor. It is the student's responsibility to obtain any missed assignments from a classmate or the instructor. Students must be prepared for class with the proper books, disks, supplies, assignments, and having read and/or completed all assigned material. Hats and caps must be removed in the classroom. Class conduct policy is further discussed under the Special Notices section below.

Support Services:
Tutors and Professional Assistants are available in the Academic Skills/Computing Labs. Check for availability, locations, and scheduled hours of operation.

Grading Policy:
34% - 3 exam grades
66% - Lab assignments
Attendance Policy:
Attendance will be taken at each class. It is the responsibility of the student who arrives late to have the absence changed to a lateness (at the end of class). Being late for class or leaving before the end of class constitutes 1/2 an absence. The college policy on attendance allows for absences equivalent to one week's worth of regular semester class meetings. Excessive absences may result in the student being dropped from the course with possible failure, or receiving a reduced grade at the instructor's discretion. Notify the instructor in case of illness. Despite absence, students must keep abreast of current material including announcements, assignments, and deadlines. All due dates must be met.

Assignments:
The instructor will assign questions, problems, exercises and/or tutorial assignments for students to hand in. Each test date is the due date for acceptance of any tutorial assignments or case problems from chapters corresponding to that test. For example, the test #2 date is the final acceptance date for any assignments or problems assigned between test #1 and the announced date of test #2.
All material submitted must contain the student's name, due date, and nature and number of the course grade. Make-up exams will solely be given at the discretion of the instructor, however no student will be allowed to make up an examination that has been returned and discussed in class. All assignments and projects must be correct when submitted, and are due by the end of the day on the date announced unless otherwise stated. No late assignments will be accepted unless an extension date is prearranged with the instructor.

Special Notices:
Students are not permitted to copy any software used in class unless specifically instructed to do so. Commercial software is protected under federal copyright laws. Any student illegally copying files will be dismissed from the class and given a final grade of F.

Students should read the “Guidelines for Academic Success” as printed in the student handbook.

Although not all-inclusive, conduct policy for this course prohibits the following behaviors:
- Eating or drinking in class
- Excessive or distracting conversation, including use of cellular devices as noted below
- Sleeping in class or lab
- Unauthorized use of computer equipment in class or lab
- Causing or threatening harm to another student
- Academic dishonesty on any test, paper or coursework
- Destruction, unauthorized transfer or alteration of files

In accordance with College policy, any student guilty of the above may receive a failing grade, be dismissed from class, and/or be referred to the Dean of Students for further disciplinary proceedings.

Additionally, students are required to set all personal cellular devices (such as PDAs and cellular phones) and alarm watches to be INAUDIBLE during class times. Audio activation of such devices, as well as unauthorized web access, email or text messaging will be considered a disruption of class, and may result in the student being dismissed from class for the day, recorded as a lateness or absence. Any emergency or other phone conversations will be conducted outside of the classroom.

Tentative outline of subjects

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<th>WEEK</th>
<th>TOPIC</th>
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<tr>
<td>1-2</td>
<td>Introduction, system overview, file structure &amp; program development</td>
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<td>3</td>
<td>Pixels &amp; shapes (Ch 1)</td>
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<td>4-5</td>
<td>Coding in Processing, compiling in Java, and interaction (Ch 2 &amp; 3)</td>
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<td>6</td>
<td>Test #1, Variables (Ch 4)</td>
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<td>7-8</td>
<td>Conditions, Loop structures &amp; Functions (Ch 5 - 7)</td>
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<td>9-10</td>
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<td>11-12</td>
<td>Arrays &amp; Algorithms (Ch 9 &amp; 10)</td>
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<td>13-14</td>
<td>Test #3, Debugging &amp; Libraries (Ch 11 &amp; 12)</td>
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