**CSC 20 – Programming Concepts and Methodology II**

**Meetings:** The class meeting and final exam times can be found at the Sacramento State schedule of classes webpage (http://web1.irt.csus.edu/class\_schedule/Spring2020/CSC.html#CSC 20 - Program Concept+Method II (3 Units))

**Instructor:** Abida Mukarram. Office: 5009 Riverside Hall. Email: [abida.mukarram@csus.edu](mailto:abida.mukarram@csus.edu)

Office Hours: Mon/Wed 12-1. It is changed occasionally and a canvas announcement will be made if so.

**Text:** *Building Java Programs, 4th Edition*, Reges and Stepp, Addison-Wesley, 2016. You must have this book (or the second or third edition). It may be useful in lab, so bring it.

**Course Learning Management System: Canvas**

**Catalog Description:** Application of object-oriented techniques for systematic problem analysis and specification, design, coding, testing, and documentation. Semester-long project approach emphasizing larger programs. Managing program complexity using abstraction. Introduction to algorithm analysis and Big-O notation. Advanced language features. Basic sorting and searching algorithms. Recursion.

**Goals:** (1) To give experience in designing, implementing, testing, and documenting computer programs using an object-based approach, modularity, and stepwise refinement. (2) To provide an introduction to data abstraction through the development and use of classes. (3) To provide an understanding of number systems, data types, control structures, and procedural abstraction. (4) To help students improve problem-solving skills.

**Prerequisite:** CSC 15. You are expected to be capable of doing most of the self-checks, exercises and programming projects from Chapters 1-7 in Java. You should have some exposure to Chapter 8.

**Announcements, Questions and Feedback:** All communication will take place using Canvas. You will need to access Canvas to access the course content, upload homework and check your grades. You are required to email me via Canvas and not through personal emails etc. There is a discussion board in Canvas called Stack Overflow 20 for sharing technical information and clarifying questions about homework or projects. You should not post anything that gives away too much of a solution -- because this deprives others of finding the solution themselves -- but otherwise students are encouraged to answer each other's questions. Course feedback is also encouraged. If something about the course frustrates you, please let me know.

**Lab:** The purpose of lab is for you to work on problems in a supportive environment and practice working with others. You will often work with a partner on a lab assignment and the instructor will be available to help when you need it. Lab participation is mandatory, and poor cooperation or attendance will result in a lowered grade.

**Homework:** Homework will be assigned via Canvas so check the LMS regularly. Read each assignment carefully for information on how and when to submit your work and whether collaboration with fellow students is allowed.

**Exams:** There are no make-up exams. If missing an exam is unavoidable, you must contact the instructor as soon as possible to make arrangements. No books or calculators are allowed during exams unless notified otherwise. If paper or a Scantron sheet is ever needed, you will be told ahead of time.

**Required performance:** To be eligible to pass the class, you must complete all programming assignments and **get at least 55% of exam points overall and on at least half of the exams**. Opportunities to complete unsatisfactory programming work with a reduced grade may be offered. If at the end of the semester not all programs have been completed, the instructor may still grant a passing grade if subjectively it is determined that the totality of work completed warrants it.

**Grading:** Programming assignments will be worth 15% of your grade. Labs will be worth 5%. The remaining points will be divided between the exams equally. If you get 90% of the available points you will get an A, 85% A-, 80% B+, 75% B, 70% B-, 65% C+, 60% C, 55% C-. Students may get a higher grade if, subjectively, their score is close and their submissions indicate diligent and quality work. Missing more than one lab or poor cooperation in lab may result in a grade reduction. The inability to complete required work or missing more than three labs may result in an F grade.

**Advice:** If you wish to do well in this class try to do all of the following. (i) Attend class. Although attendance is not taken during lecture, those who skip class usually do less well. (ii) Ask and answer questions in class. One of the best ways to learn is through a dialogue guided by questions and answers. And, you should ask questions when something does not make sense. Do not be afraid -- you will benefit through your participation and the class will be more dynamic and interesting. (iii) Ask questions outside of class. Office hours and the online forum are usually underused. (iv) Do your homework early. Only through practice will you be able to do similar problems on an exam. (v) Study worked-out solutions whether supplied by me or found in our textbook. Study and emulate them until you understand.

**Academic Integrity:** Read the department policy at <https://www.csus.edu/umanual/student/stu-0100.htm>

In this class you are allowed to collaborate with another student only if the assignment specifically allows you to do so. Read assignments carefully to determine what level of collaboration is allowed.

**Regrading:** If you believe you lost points on some work even though your solution was correct, resubmit the entire work, within a week of when it was first returned to the class, to the instructor with a letter describing your concern in detail. Double check that your proposed solution was correct before resubmission.

**Tentative Schedule:** A tentative schedule is available in Canvas under Modules. It is subject to change and should be consulted frequently. If providing this syllabus for evaluation at another school, you should include the schedule as well.