

CS 233: Application Program Development

Fall 2012

Course Description:

A course in application programming with an emphasis on software development. Integrated development tools, software development kits, and software subsystems are to be employed to develop database, eCommerce, and mobile applications. Learning activities in this course include classroom, laboratory, and online tasks to develop the knowledge and skills necessary to write effective computer programs for information system applications.

Audience:

Students planning to enroll for this course should have mastered the objectives set for an introductory course in computing including the fundamentals of programming (e.g. CSci 151).

Student Learning Outcomes:

1. Acquire the skills to edit, test and implement software for a client-server environment;
2. Develop programs to retrieve data from forms and files to produce user displays and reports;
3. Learn programming constructs and develop programs that use strings, dates, arrays, functions, classes and objects;
4. Design and develop user interfaces to collect and present data and information;
5. Develop code to use regular expressions, handle exceptions and validate data for file and database storage;
6. Implement measures to create secure web sites;
7. Design, create, and process a database;
8. Design and develop pages for a typical web application (e.g. shopping cart).

References and Software:

1. Welling and Thomson. PHP and MySQL Web Development, 4ed., Indianapolis: Developer's Library—Sams Publishing. (2009; ISBN: 0-67-232916-6)
*This free item is available as an A&M-Commerce Safari (online) book.
2. PHP and MySQL are installed on servers and on individual computers in the computer lab. This software (and associated documentation) is free for academic use and may be downloaded from php.net and mysql.com or as a package from apachefriends.org.

Measurement and Evaluation:

Grades will be based upon an evaluation of exam scores (3@100 points ea.) and lab projects (200 points). A point total in the range of 450-500 will earn the grade "A", 400-449 a "B", 350-399 a "C" and so on. College policy must be followed to obtain an "X" (incomplete). Unless circumstances are beyond control, the student is expected to withdraw instead of delaying completion of the course.

Class Policy, Procedure and Rules

Assigned Readings:

The student is expected to read assignments to prepare for scheduled discussions of the material.

Attendance:

The student is expected to attend orientation classes, the exam meetings, and scheduled project presentations. Regular class and/or online participation should ensure that expectations are understood, and provide feedback to monitor and assess progress. The student is responsible for accessing the course website to obtain assignments and related materials.

Participation:

The student is expected to take part in class or online discussions, implement and test software and program examples, and assist class members with technical issues.

Lab projects:

It is expected that the student will begin each project when assigned or as topics are approved, then present system components by the scheduled progress reporting dates.

Exams:

The student is expected to complete each exam at the scheduled time. If an exam is missed, the next exam score will be substituted. Exams are based upon all learning objectives to be reached before the scheduled date.

Intellectual Honesty:

By departmental policy, the discovery of plagiarism (i.e. copying from another's exam paper or lab project) will result in a grade of "F" on that submission for an individual grade. A subsequent breach of this policy mandates a grade of "F" for the course.

Conduct:

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student Handbook)

Special Accomodations:

Students in need of accomodations for disabilities should contact the Director of Disability Resources and Services, Gee Library, Room 132, phone 903.886.5150 or 5835.