COURSE DESCRIPTION

Dept., Number	CSci 211	Course Title	Computer Science III
Semester hours	3	Course Coordinator	Stephen V. Rice, Assistant Professor

Current Catalog Description

Devices and techniques for conventional file processing, sequential, hashed, indexed organizations; language and operating system support facilities.

Textbook

P. J. Deitel and H. M. Deitel. *Java: How to Program,* 7th edition, Pearson Prentice Hall, 2007.

References

Course Outcomes

This is the third course in the introductory computer science sequence. It continues the study of Java programming begun in CSci 111 and CSci 112 by examining more advanced features of Java. The student develops larger, more complex programs using object-oriented design, graphical user interfaces, and file input/output. After successfully completing this course, the students can:

1. design classes to represent the attributes and behaviors of real-world entities
2. describe composition, inheritance and polymorphism
3. find and use Java API classes and their methods as needed in program development
4. write code to produce simple graphical user interfaces and handle GUI events
5. utilize the exception handling features of Java
6. read and write text and binary files.

Relationship between Course Outcomes and Program Outcomes

The course outcomes contribute to the program outcomes as follows: 1 to (b), (c), and (j); 2 to (a) and (k); 3 through 6 to (i).

Prerequisites by Topic

CSci 112, Computer Science II

Major Topics Covered in the Course

- Object-oriented design
- Composition, inheritance, and polymorphism
- Enumerations
- Use of Java APIs
- Graphical user interface (GUI) components and event handling
- Two-dimensional graphics
- Exception handling
- Text and binary file I/O
- Generics and collections

Assessment Plan for the Course

A comprehensive, 30–question exam constructed by a faculty committee is administered to each offering of CSci 211. Student performance is analyzed question–by–question to identify needed adjustments in the textbook, lectures, or assignments. Faculty who regularly teach the class and the classes that follow participate in the evaluation, in the selection of textbooks, and in formulating a response appropriate to the assessment results.

How Data in the Course are Used to Assess Program Outcomes (unless adequately covered already in the assessment discussion under Criterion 4)

The standard exam administered in CSci 211 (see the previous item) is included in the curriculum–wide outcome assessment described in chapters 2, 3, and 4 of the Self–Study.

Estimate Curriculum Category Content (Semester hours)

Area	Core	Advanced	Area	Core	Advanced
Algorithms	0.5		Software design	1	
Data structures	0.5		Concepts of programming languages	1	