CIS 2531

Division: Career and Technical Education
Department: Computer Information Systems
Course: CIS 2531
Title: Programming Language - Java/JavaScript
Catalog Description:

This course is an introduction to the Java programming language. It includes learning to use object oriented concepts and how to implement graphics, animation, etc., into a web page using Java. This course also includes concepts of JavaScripting, which focuses on web page development using JavaScripts.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 1
Clock/Hour Requirements: 60
Offered for Non-Credit: No
Prerequisites: Either CIS1501, CIS2520, or Instructor approval

Justification:

The Java programming language is widely used in Internet applications. The experience gained in this course will increase the chances of employment with almost any software company. This course is recommended by the program advisory committee. This course prepares students for job readiness at graduation and/or transfer to a four-year college.

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:

- understand the structure of Java programs
- understand Java language syntax
- understand the portability of Java
- write working Java programs using the most common operators, expressions,classes, and statements
- successfully debug Java programs
- design and create programs for the Web using JavaScripts

Content:

Course objectives will be accomplished by providing students with experiences in these subject areas:

- short history of Java
- introduction to Java program structure
- Java screen input/output
- streams
- decision structures, if/else, switches, etc.
- loops (iterations) and simple and multiway decisions
- creating and using functions
- using arrays and pointers
- using structures
- basic file handling
- using linked lists
- use of classes and inheritance
- Graphical User Interface components
- sorting
- linked lists
- designing, programming, and debugging a series of advanced Java programs
- developing JavaScripts for the web.

General Education Outcomes:

4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.

Students will research programming issues and solutions through the internet, industry journals, reference texts, and electronic media. Information gathered will be used in the creation of solutions in the programming environment and delivered as finished product before the instructor and class members.

5) Apply a cultural and historical awareness to a variety of phenomena.

Students will be aware of the changing nature of the computer field and how it impacts the use of dated software with newer and older hardware. The programming field is subject to constant change, which requires programming professionals to be aware of the history and possible futures of a given platform.

Key Performance Indicators:

In Class:

- Student grades will be based on a combination of lab exercises (5-25%), quizzes (5-25%), tests (10-50%), and a final exam or project (20-50%).

Following Class:

- Students will demonstrate success in subsequent courses and competency in the workplace.

Representative Text and/or Supplies:

Optimum Class Size: 16
Maximum Class Size: 16

Signatures:

I hereby submit this course syllabus:

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I hereby find this course consistent with the goals and resources of the Computer Information Systems Department:

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Michael P. Medley, MBA, Assistant Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

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Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)