Raritan Valley Community College
Course Outline

CISY 125 - Programming for Business Majors

I. Basic Course Information

A. Course number and Title: **CISY 125**- **Programming for Business Majors**

B. New or Modified Course: **Modified**

C. Date of Proposal: Semester: **Fall** Year **2017**

D. **Effective Term:** **Fall 2018**

E. Sponsoring Department **Computer Science**

F. Semester Credit Hours: **1**

G. Weekly Contact Hours: Lecture __**0**__
Laboratory __**2**__
Out of class student work per week: 1

H. Corequisites: **CISY 102 Computer Literacy, or equivalent experience**

I. Laboratory Fees: **Yes**

J. Name and Telephone Number or E-Mail Address of Department Chair and Divisional Dean at time of approval: Steven Schwarz – steven.schwarz@raritanval.edu (Chair), Sarah Imbriglio – Sarah.Imbriglio@raritanval.edu (Divisional Dean)

II. Catalog Description

Corequisite: CISY 102 Computer Literacy, or equivalent experience. This course fulfills the computer-programming requirement for business majors intending to transfer to Rutgers University. In this course students learn concepts of programming using a high level programming language such as Java or Javascript. Topics covered include algorithms, flowcharts, pseudocodes, control structures, loops, functions, subprograms, and arrays. Laboratory exercises are emphasized.

III. Statement of Course Need

A. This course is needed in conjunction with CISY 102, Computer Literacy, for students majoring in an Option in Business Administration and intending to transfer to Rutgers.

B. This course has a weekly lab component. The lab is essential for providing students hands on experience to write programs to using Java or Javascript.

C. This course is intended for students who need to transfer CISY 102 Computer Literacy to Rutgers University, otherwise the course is not intended to transfer.

IV. Place of Course in College Curriculum

A. Free Elective
B. The course meets a program requirement for:
    a. Computer Support, Certificate
    b. Management Information Systems Option In Business Administration, Associate Of Science
C. This course is listed in these programs as a course needed for those intending to transfer to Rutgers University:
    a. Supply Chain Management Option in Business Administration, Associate Of Science
    b. Marketing Option in Business Administration, Associate Of Science
    c. International Business Option in Business Administration, Associate Of Science
    d. General Business Option in Business Administration, Associate Of Science
    e. Exercise Science-Option in Sports Management, Associate Of Science
D. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

This course explores the following topics:

A. Introduction to Structured Programming and Problem Solving
    1. Structure Charts

2. Flow Charts
3. Pseudocode
4. Algorithms

B. Memory Use
1. Variables
2. Arithmetic Operations

C. Basic I/O
1. Displaying Data
2. Getting Data from Users
3. Formatting Output for Reports

D. Control Structures
1. If then else and else if statements
2. Case or switch statements

E. Modularizing Programs
1. Using and creating methods

F. Loops
1. While loops
2. For loops
3. Do-while loops

G. Arrays
1. Declaring, allocating and using Arrays
2. Sorting Arrays using Bubble Sort

VI. Educational Goals and Learning Outcomes

A. General Educational Learning Outcomes:

After completion of this course, the student will be able to:

1. Apply design and coding techniques to create computer programs that solve a business need (GE-NJ 4)

B. Course Learning Outcomes

At the conclusion of the course, students will be able to:

1. Analyze business needs
2. Design a computer program using structured programming techniques to meet a business need

C. Assessment Instruments
1. Computer Programs--In-Class Labs ~~and Projects~~
2. Exam--~~Hands-on Programming Exam~~
3. Other-Homework

VII. Grade Determinants

A. Computer Programs--In-Class Labs
B. Exam
C. Other—Homework

Modes of Teaching and Learning:
A. Lecture/Discussion--Lecture with demo of programs which meet business needs
B. Laboratory--Lab time to analyze business needs and to write computer programs independently

VIII. Text and Materials

Suggested Textbook—Gaddis, Tony, Starting Out with Java from Control Structures through Objects, most recent edition, Pearson-Addison Wesley

(Please note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks)

XI. Resources

A. Computer Lab for classroom instructions and exercises
B. The Java Development Kit and an Integrated Development Environment such as NetBeans, TextPad, or Notepad++
C. Web Browser software with Java Script enabled

X. Honors Option

N/A