RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

CISY 233 INTRODUCTION TO PHP

I. Basic Course Information

A. Course Number and Title: **CISY 233 – Introduction to PHP**

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

C. Date of Proposal: Semester: **Fall** Year: **2013**

D. Sponsoring Department: **Computer Science**

E. Semester Credit Hours: **3**

F. Weekly Contact Hours: Lecture: **2**
Laboratory: **2**

G. Prerequisites/Corequisites: **A grade of C or Higher in CISY 225 –Web Page Development I and a CISY Programming Elective.**

H. Laboratory Fees: **Yes, at current rate.**

I. Name and E-Mail Address of Department Chair: **Dr. Thomas Edmunds, tedmunds@raritanval.edu**

II. Catalog Description

***Prerequisite(s): A grade of C or Higher in CISY 225 - Web Page Development I and a CISY Programming Elective*. This course is an introduction to the use of PHP as a server side scripting tool on the World Wide Web. Students will embed PHP within HTML to create scripts that make decisions, loop through code, perform string manipulation, and handle HTML forms. Near the end of the course, students will have an opportunity to work with MySQL to store data from a Web page in a relational database and display output from a database on a PHP enabled web page.**

III. Statement of Course Need

A. Today's Web is dynamic. Different users have different experiences on the same site. Today's Web developers need to be proficient in scripting languages such as PHP that allows data to be manipulated on the server and returned to the browser as pure HTML. Developers also need to

learn how to use relational databases such as MySQL in order to store and retrieve data.

B. The course has a lab component to give students the opportunity to create and run PHP scripts during class as well as store and retrieve data from a MySQL database.

C. This course generally transfers as a Computer Science Elective or a Free Elective.

IV. Place of Course in College Curriculum

A. Free Elective
B. This course meets a program requirement for:
1. Web Developer A.S. degree and
2. Web Developer Certificate

C. This course serves as a Programming Elective on the Computer Science Elective List
D. 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 their individual websites.

V. Outline of Course Content

This course explores the following topics:

- **A. Installing PHP**
- **B. Naming and creating variables in PHP**
- **C. Type casting**
- **D. Operators and Expressions**
- **E. Making Decisions**
- **F. Looping**
- **G. Creating and Accessing Strings**
  - **a. Searching Strings**
  - **b. Replacing Text Within Strings**
  - **c. Formatting Strings**
- **H. Creating Arrays**
  - **a. Accessing Array Elements**
  - **b. Looping Through Arrays**
  - **c. Manipulating Arrays**
  - **d. Multidimensional Arrays**
- **I. Functions**
  - **a. Creating functions**
  - **b. Calling functions**
- **J. Objects**
  - **a. Basic OOP Concepts**
  - **b. Creating and Using Properties**
  - **c. Working with Methods**
  - **d. Object Overloading**

    e. **Constructors and Destructors**

K. **Handling HTML Forms with PHP**
    a. **Capturing Form Data with PHP**
    b. **Dealing with Multi-Value Fields**
    c. **Generating Web Forms with PHP**
    d. **Storing PHP Variables in Forms**
    e. **Creating File Upload Forms**
    f. **Redirecting After Form Submission**

L. **Saving State with Query Strings**
    a. **Building and Accessing Query Strings**

M. **Working with Cookies**
    a. **Setting, Accessing, and Removing Cookies**

N. **Using Sessions to Store Data**
    a. **Creating, Reading, Writing, and Destroying Session Data**
    b. **Passing Session IDs in Query Strings**

O. **Working with File Directories**
    a. **Opening and Closing Files**
    b. **Reading and Writing to Files**

P. **Understanding Relational Databases**
    a. **Normalization**

Q. **Introduction to MySQL**
    a. **Creating New Database**
    b. **Creating a Table**
    c. **Adding, Reading, Updating, Deleting Data from a Table**

R. **Connecting to MySQL from PHP**
    a. **Making a Connection**
    b. **Handling Errors**
    c. **Reading Data**
    d. **Using SELECT Statements**
    e. **Pulling Data from Multiple Tables**

S. **Manipulating MySQL Data with PHP**
    a. **Inserting, Updating and Deleting Records**
    b. **Creating Login and Logout scripts**

VI. General Education and Course Learning Outcomes

A. <u>General Education Learning Outcomes:</u>

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

1. Collaborate with others to create dynamic Web Pages that share data. (GE NJ4)
2. Save and retrieve HTML form data from a MySQL database (GE NJ4)
3. Use PHP to create HTML forms that can be stored and retrieved in a file, session, or database (GE NJ4)

4. Design and develop relational databases that can be used to save and retrieve appropriate data in the appropriate format. (GE NJ4)

B. <u>Course Learning Outcomes:</u>

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

1. Create and manipulate variables in PHP
2. Design and implement PHP functions
3. Create and instantiate objects using PHP

VII. Modes of Teaching and Learning

A. lecture/discussion
B. small-group work
C. individualized lab work

VIII. Papers, Examinations, and other Assessment Instruments

A. Quizzes
B. In-class lab exercises
C. Homework Assignments -- Short papers and problems.
D. Exams -- Exams will assess both conceptual knowledge and practical knowledge
E. Optional Project assigned by the Instructor

IX. Grade Determinants

In order to evaluate achievement of the learning outcomes above, possible grade determinants include:

A. Homework assigned from the text book and/or Instructor's Notes
B. Class Participation
C. Periodic Examinations and/or Quizzes
D. Final Examination
E. Optional in-class exercises (other than the Lab assignments) assigned by the Instructor
F. Optional Project assigned by the Instructor

X. Texts and Materials

Suggested Textbook: *Beginning PHP 5.3* by Matt Doyle. Copyright 2010 by Wiley Publishing.

(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. Access to remote Web server with PHP and MySQL installed.
B. Computer Lab with access to the Internet