RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

IDMX291 – USER INTERFACE PROGRAMMING

I. Basic Course Information

A. Course Number and Title: IDMX291 User Interface Programming

B. New or Modified Course: Modified

C. Date of Proposal: Semester: Spring   Year: 2018

D. Effective Term: Fall 2019

E. Sponsoring Department: Visual and Performing Arts (VAPA)

F. Semester Credit Hours: 3

G. Weekly Contact Hours: 4   Lecture: 2
　　　　　　　　　　　　　　　　　　　 Laboratory: 2
　　　　　　　　　　　　　　　　　　　 Out of class student work per week: 5

H. Prerequisites/Corequisites: **Prerequisite:** A grade of C or higher in IDMX208 Interface Design & Human-Computer Interaction **Corequisite:** IDMX244 JavaScript (or other Computer Science Programming Elective).

I. Laboratory Fees: Yes, at current rate.

J. Name and Telephone Number or E-Mail Address of Department Chair and Divisional Dean at time of approval: John Sichel – john.sichel @raritanval.edu & Vandana Nadkarni – vandana.nadkarni@raritanval.edu, Patrice Marks- Patrice.Marks@raritanval.edu Divisional Dean

II. Catalog Description

Prerequisite: A grade of C or higher in IDMX208 – Interface Design & Human-Computer Interaction; Corequisite: IDMX244 Javascript (or other Computer Science Programming Elective). Where designing multimedia applications is a highly visual endeavor, the code that lies beneath is what makes it come alive. Students will learn how to implement and manipulate text, images, audio, animation, video, and the interfaces that drive them programmatically by using industry standard applications and emerging technologies.

III. Statement of Course Need

A. All multimedia is driven by code, and a fundamental understanding of the principles of that code is essential for a professional to succeed in the field of interactive multimedia development. This is especially the case today with technologies evolving at a rapid pace. Where IDMX114 acts as a general introduction and IDMX208 focuses upon design, this course will build upon those concepts focusing heavily upon technical implementation.

B. This course requires the use of a Computer Lab to both learn the software necessary to create user interface assets, as well as to assemble practical user interface projects.

C. Transferability of Course: This course could transfer as a free elective or as a Computer Science elective.

IV. Place of Course in College Curriculum

A. This course meets a program requirement for the Interface Design & Web Development A.A.S., and A.S..
B. Computer Elective on the Computer and Programming Electives List
C. Free Elective
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

A. Brief review of IDMX114 and IDMX208.
B. Working with a design specification.
C. Acquiring and managing digital assets.
D. Technical/interactive design and implementation.
E. Rapid and refined prototyping.
F. Team and time management
G. Integrating assets with code.
H. User and usability testing.

VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes:

At the completion of the course, students will be able to:
1. Apply creativity to problem solving; decision making; and quantitative reasoning (GE-NJ2)

2. Build communication skills (effective writing and speaking) through collaborative learning, utilizing team projects and multi-tasking. (GE-NJ1)

B. Course Learning Outcomes:

At the completion of the course, students will be able to:
1. Analyze a multimedia design specification, break it down into its constituent technical pieces, identify potential problems, and implement it as a working prototype.
2. Perform user and usability testing upon a prototype.
3. Implement necessary changes discovered during user and usability testing.
4. Refine a prototype into a finished multimedia product.

C. Assessment Instruments

1. Computer lab assignments
2. Quizzes
3. Midterm examinations
4. Final examination

VII. Grade Determinants

A. Attendance & participation
B. Computer lab assignments
C. Homework assignments
D. Tests and quizzes
E. Final project

The modes, and methods for teaching and learning that may be used in the course:

A. lecture/discussion
B. small-group work
C. computer-assisted instruction
D. guest speakers
E. laboratory
F. student oral presentations
G. simulation/role playing
H. student collaboration
I. independent study

VIII. Texts and Materials

A. Suggested textbooks:
  o "Prototyping: A Practitioner's Guide" (2009) by Todd Zaki Warfel
  o "Usability Testing Essentials: Ready, Set...Test!" (2010) by Carol M. Barnum
B. Open Educational Resources (OER)

<u>The following statement should be included in the outline</u>:
(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.)

IX. Resources

        A. Computer lab with overhead projection
        B. Modern web browser software (Chrome)
        C. Microsoft Office Suite
        D. Adobe Suite
        E. Unity or other engine determined by the professor

X. Honors Options

N/A