RRC Polytech campuses are located on original lands of Anishinaabeg, Cree, Oji-Cree, Dakota and Dene peoples, and on the homeland of the Métis Nation.

Course Outline

Course Information

Course Code and Title: WEBD-2008 Web Development 2

Course Section: All Sections

Department/Program: Applied Computer Education/Business Information Technology

Total Hours: 80

Credit Hours: 5

COURSE DESCRIPTION:

This course builds on skills learned in the Web Development 1 course. Students will also learn to employ technologies that run on a web server to create rich and dynamic websites. Topics covered include creating dynamic web pages generated from data stored in a database, validating data submitted to the server from a web form and saving that data in a database, as well as maintaining session cookies to provide data persistence to clients accessing the website. The PHP scripting language and the MySQL relational database management system are used to learn server-side web development techniques. Javascript will also be used to add dynamic client-side updates to the webpages being developed.

RECOGNITION OF PRIOR LEARNING (RPL):

RPL is a process in which students have the opportunity to obtain credit for College-level knowledge and skills gained outside the classroom and/or through other educational programs. It is a process that documents and compares a student's prior learning gained from education, work and life experience to the learning outcomes in College courses/programs. For more information about RPL at RRC Polytech, refer to the RPL website at rrc.ca/RPLservices or A14 - RPL Policy.

Contact Lisa Case at lmcase@rrc.ca for information regarding RPL processes and opportunities for this course.

For general information and assistance with RPL, contact RRC Polytech's RPL Advisor at 204.632.3094 or rpladvisor@rrc.ca.

ACCESSIBILITY STATEMENT:

RRC Polytech is committed to providing persons with documented disabilities fair and equal access to educational programs, services, and facilities. If you are a student with a disability* and require reasonable accommodations, you must connect with Student Accessibility Services (SAS) who will assist in developing and implementing your accommodation plan. Refer to the Student Accessibility

Services webpage for information about SAS locations and how to book an appointment. Students with disabilities are also encouraged to have a private discussion with their instructor(s) to facilitate greater understanding of their learning needs.

*RRC Polytech's definition of "disability" is consistent with the Manitoba Human Rights Code. In the educational setting, "disability" refers to a permanent or temporary medical, physical, sensory, mental health (e.g., anxiety, depression), learning, or neurological (e.g., ADHD, Autism Spectrum Disorder) condition that interferes with a student's ability to fully participate in their studies and/or other associated activities.

ACADEMIC INTEGRITY:

Academic Integrity describes a commitment to honesty, truthfulness and accountability in teaching, learning and research. Academic misconduct describes acts and activities that breach standards of academic integrity, including and not limited to fraud, cheating, plagiarism, misuse or misrepresentation of sources, unauthorized collaboration, etc. Clear expectations will be communicated to students to promote positive academic practices in compliance with RRC Polytech policy S4 Academic Integrity. Contact academicintegrity@rrc.ca for additional information.

ACADEMIC REQUISITES:

DBMS-1002 - Database Management Systems 1

WEBD-1008 Web Development 1

COURSE DELIVERY METHODS:

The course is delivered in a blended format.

The following communication tools will be used in this course:

Microsoft Teams, Learn, Email, Classroom

Course format:

Two 2-hour classes and one 1-hour class per week.

Students will work through examples and activities in class to gain a working knowledge of concepts. Assignments and examinations are employed to evaluate understanding of material. A peer-review process is employed to assist students in achieving the learning outcomes.

Some classes will be used as instruction/activity time, and some as lab time to work on assignments. The instructor will announce what classes are lab classes.

EFFECTIVE DATE:

August 29, 2022

Instructor Information

This information is available in the Learn Course Management System.

Student Readiness

STUDENT COMMITMENTS AND CONTACT TIMES:

5 hours scheduled daytime attendance per week.

Students are expected to commit time outside of regularly scheduled classes.

Students in this course are expected to regularly check their academic email account or ensure it is forwarded to another checked account.

Instructors will notify students at the beginning of the term of any course-specific communication methods.

COURSE RESOURCES:

MS Teams

Learn

Textbook(s):

None

Student Learning

LEARNING OUTCOMES AND ELEMENTS OF PERFORMANCE:

By the end of this course of study, you should be able to...

1. Identify and describe the technologies that make up the W/LAMP server-side stack
2. Illustrate and explain a typical client-server HTTP interaction
3. Install and configure server-side software
4. Write, debug, and analyze PHP scripts, making use of:
    a. Looping and control structures
    b. Arrays and associative arrays (hashes)
    c. Input validation and sanitization
    d. String manipulation
    e. Functions
    f. Sessions and cookies
    g. HTML form processing including GET and POST superglobals
    h. MySQL database interaction to create, read, update and destroy data
5. Write, debug and analyze Javascript that makes use of:
    a. JSON Structured Data
    b. Asynchronous Data Requests (AJAX)
6. Develop and debug a Content Management System using PHP.
7. Use React to develop simple single page applications
8. Explain and demonstrate the execution of PHP source code
9. Use source control tools to store, retrieve and version PHP source code
10. Conduct code reviews in teams

INSTRUCTIONAL SCHEDULE, ASSESSMENTS AND DATES:

NOTE: The following dates are subject to change based on the needs of the students at the instructor's prerogative. Students will be notified ahead of time of any changes.

DATE	MODULE/UNIT/WEEK	TOPIC	ASSIGNMENTS	WEIGHT
Jan 3	First Day of Classes Module 1	Intro to PHP	Intro to PHP Assignment Group Challenge Group Participation Challenge 1	2 1.3 3 1.3
January 3 - 9	Add/Drop Week			
Jan 9	Module 2	Superglobals, Validation, and Sanitization	Server-side User Input Validation Assignment Challenge 2 Test 1	3 1.3 6
Jan 16	Module 3	CRUD (Create, Read, Update, Delete) and MySQL	Blog Assignment Challenge 3	4 1.3
Jan 30	Module 4	AJAX	Open Data & JSON Assignment Challenge 4 Test 2	4 1.3 8
Feb 6	Module 5	Javascript Frameworks with React	React based Assignment Challenge 5	4 1.3

Mar 6	Module 6	Project	Test 3 Challenge 6 Challenge 7 Content Management System Project	6 1.3 1.3 50
April 4	Voluntary Withdrawal (VW) Deadline for BIT, IBIT, BTM, IS			
April 28	Last Day of Classes for BIT/IBIT/BTM/IS			
			Assessment Total:	100%

ASSESSMENT	WEIGHT
Assignments	20%
Project	50%
Activities	10%
Term Tests (3 total)	20%
Total:	100%

LETTER GRADE DISTRIBUTION:

A+	4.5	90 to 100%
A	4.0	80 to 89%
B+	3.5	75 to 79%
B	3.0	70 to 74%
C+	2.5	65 to 69%
C	2.0	60 to 64%
D	1.0	50 to 59%
F	0.0	0 - 49%

A grade of D is required to pass this course.

Course Policies

GENERAL ACADEMIC POLICIES:

It is the student's responsibility to be familiar with and adhere to the RRC Polytech Academic Policies. These Policies can be found in the RRC Polytech calendar or online under A SERIES – ACADEMIC MATTERS at rrc.ca/legal/policies.

DATE REVISED:

November 23, 2022

RRC POLYTECH

Mental Health and Well-being at RRC Polytech

Having good personal health and well-being will support your success in this program.

WE ENCOURAGE YOU TO:

- Recognize that stress is an expected part of being a college student.
- Rethink how you view difficulty. Being challenged is actually a part of learning and reaching success.
- Reflect on your role in taking care of yourself throughout the term. Do your best to balance your schoolwork and life demands.
- Reach out to your instructor, program coordinator, or College supports at any time if something is affecting your academic performance. It's always best to reach out early and it's the responsible thing to do.

COLLEGE SUPPORTS READY AND WILLING TO ASSIST YOU:

- Student Counselling Services
- Indigenous Student Supports
- International Student Supports
- Academic Success Centre
- Student Accessibility Services
- Health Services
- Library Services
- Campus Well-Being
- United Way 211 community resource

AUTHORIZATION:

This course is authorized for use by:

Gail Horvath
Program Manager, Applied Computer Education

December 12, 2022
Date

Approved by Senior Academic Committee April 22, 2022