Red River College Polytechnic campuses are located on the lands of Anishinaabe, Ininiwak, Anishininew, Dakota, and Dené, and the National Homeland of the Red River Métis.

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](http://www.rrc.ca/RPLservices) or [A14 - RPL Policy](https://www.rrc.ca/legal/policies/recognition-of-prior-learning/).

For general information and assistance with RPL, contact RRC Polytech’s RPL Advisor at 204.632.3094 or [rpladvisor@rrc.ca](mailto: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](https://www.rrc.ca/accessibility/) for information about SAS locations and how to [book an appointment](https://hub.rrc.ca/Forms/Start/AccessibilityRequest?_ga=2.209090074.987068331.1650400536-653561319.1650400536). 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 means acting with the values of honesty, trust, respect, responsibility, fairness and courage in learning, teaching and research to ensure that the credentials granted by RRC Polytech accurately represent demonstrated knowledge, skills and abilities. All members of the RRC Polytech community are expected to demonstrate these values through RRC Polytech learning activities, relationships and commitments. Clear expectations will be communicated to students to promote positive academic practices in compliance with RRC Polytech’s [Academic Integrity policy](https://www.rrc.ca/legal/policies/academic-integrity/). Contact [academicintegrity@rrc.ca](mailto: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:

January 2, 2024

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:
   1. Looping and control structures
   2. Arrays and associative arrays (hashes)
   3. Input validation and sanitization
   4. String manipulation
   5. Functions
   6. Sessions and cookies
   7. HTML form processing including GET and POST superglobals
   8. MySQL database interaction to create, read, update and destroy data
5. Write, debug and analyze Javascript that makes use of:
   1. JSON Structured Data
   2. 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 2 | First Day of Classes  Module 1 | Intro to PHP | Intro to PHP Assignment  Group Challenge  Group Participation | 3.8  1.7  3.7 |
| Jan 2-8 | Add/Drop Week |  |  |  |
| Jan 8 | Module 2 | Superglobals, Validation, and Sanitization | Server-side User Input Validation Assignment  Test 1 | 3.7  6 |
| Jan 15 | Module 3 | CRUD (Create, Read, Update, Delete) and MySQL | Blog Assignment | 6.3 |
| Jan 29 | Module 4 | AJAX | Open Data & JSON Assignment  Test 2 | 3.7  8 |
| Feb 5 | Module 5 | Javascript Frameworks with React | React based Assignment | 3.8 |
| Feb 26 | Module 6 | Project | Test 3  Project Prep Challenges  Content Management System Project | 6  3.3  50 |
| Apr 4 | Voluntary Withdrawal (VW) |  |  |  |
| Apr 26 | Last Day of Classes |  |  |  |
| Assessment Total: | | | | 100% |

|  |  |
| --- | --- |
| Assessment | Weight |
| Assignments | 25% |
| Project | 50% |
| Activities | 5% |
| 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](https://www.rrc.ca/legal/policies/).

## Date Revised:

December 6, 2023

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:

• [Academic Success Centre](https://www.rrc.ca/academic-success/)

• [Campus Well-Being](https://www.rrc.ca/wellness/)

• [Equity, Diversity and Inclusion Supports](https://www.rrc.ca/diversity)

• [Health Services](https://www.rrc.ca/health/)

• [Indigenous Student Supports](https://www.rrc.ca/indigenous/supports/)

• [International Student Supports](https://www.rrc.ca/international/student-support/)

• [Library Services](https://library.rrc.ca/home)

• [Student Accessibility Services](https://www.rrc.ca/accessibility/)

• [Student Counselling Services](https://www.rrc.ca/counselling/)

• [United Way 211 community resource](https://mb.211.ca/)

## Authorization:

This course is authorized for use by:

Tarek Abdel Aziz Date here  
Chair, AD&D Year 2 Date

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Approved by Senior Academic Committee March 22, 2023

## Alternate Formats:

This content is available in alternate formats. To request, please contact [accessibility@rrc.ca](mailto:accessibility@rrc.ca).