

## SCIENCE DEPARTMENT

### COURSE OUTLINE – Winter 2025

#### CS 3990: Web Based Internet Technology 3 (3-0-3) UT

#### 90 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

**INSTRUCTOR:** Dr. Hanna Yehoshyna      **PHONE:** 780-539-2074  
**OFFICE:** C-302      **E-MAIL:** hyehoshyna@nwpolytech.ca  
**OFFICE HOURS:** appointment by email

#### CALENDAR DESCRIPTION:

This course introduces students to various aspects of Internet and web technologies such as HTML/XHTML, CSS, XML, and JavaScript/Java through research and project related assignments. The exact topics covered in this course will be at the discretion of the instructor.

#### PREREQUISITE(S)/COREQUISITE:

- CS2010 - Practical Programming Methodology (3)

#### REQUIRED TEXT/RESOURCE MATERIALS:

The textbook for this course is:

- *Front-end Back-end Development With Html, Css, Javascript, JQuery, Php, And Mysql*, Jon Duckett, John Wiley & Sons Inc, 2022, ISBN 9781119813095

#### DELIVERY MODE(S):

In Person. This course is delivered in person at the Grande Prairie campus.



## Course Evaluation Practices:

- all assignments must be completed as individual efforts unless the Instructor states otherwise;
- quizzes and tests must be written as scheduled by the Instructor;
- a student must average at least 50% on the tests combined in order to receive credit for this course;
- a student must average at least 50% on the assignments in order to receive credit for this course.

## GRADING CRITERIA

Please note that most universities will not accept your course for transfer credit **IF** your grade is less than C-.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

## COURSE SCHEDULE/TENTATIVE TIMELINE:

Weeks	Topics
1	Web Applications development intro. HTML fundamentals: Tags, Formatting Text, Creating Links, Adding Images, Lists, Tables
2	Cascading Style Sheets (CSS) fundamentals: introduction, syntax, selectors, properties, box model, CSS position property, CSS float, pseudo classes and pseudo elements in CSS, CSS combinators
3	Advanced CSS: CSS gradients, CSS transitions, flexbox, grid, Media Query CSS, Transitions and Animations in CSS
4	JavaScript Fundamentals and JavaScript Objects basics. Introduction to event handling in JavaScript

Weeks	Topics
5	JavaScript Objects and DOM. Manipulating DOM elements. Composite data types. Advanced working with functions. Classes. Modules
6	jQuery basics. jQuery selectors and DOM attributes. jQuery CSS methods. jQuery DOM manipulation methods. jQuery effects
7	Node JS fundamentals. Introduction to JSX. Virtual DOM and rendering elements. React Components and Props.
8	React state and lifecycle. Event handling in React. Conditional Rendering
9	Routing with React Router. Redux introduction
10	<b>Midterm</b>
11	PHP basics
12	Functions and arrays in PHP
13	Working with forms in PHP
14	PHP and MySQL.
15	Introduction to PHP Frameworks
16	<b>Final Exam</b>

## STUDENT RESPONSIBILITIES:

- Students are responsible for all material taught, discussed, assigned or presented by the Instructor. It is the student's responsibility to obtain any missed material covered during classes.
- Students take the two examinations at the date and time announced by the Instructor and/or Student Services. If the midterm is missed due to illness the weight will be put on the final. If the final is missed due to illness it will be deferred.
- Documented illness is the only valid excuse for missing an exam. An original medical note will be required in both cases. A grade of 0 may be assigned for any missed exam.
- Students must be prepared for class with the proper books and assignments, and having read and/or completed all assigned material.
- Students are supposed to complete assignments on or before the due the time and date announced by the Instructor.
- Students are not permitted to work together on assignments or exams (unless otherwise instructed by the Instructor).

## STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

\*\*Note: all Academic and Administrative policies are available on the same page.