Course Code	Course Title
COMP 4021	**Internet Computing**

Course Description

Technologies and standards for World Wide Web (WWW), user interfaces and Browsers, authoring tools, Internet protocols, Internet servers, database connectivity, Robots, Search engines, server-side programming, client-side programming, security and privacy, recent advances. Prerequisite(s): COMP 2012 OR COMP 2012H

List of Topics

- Client-side Development
  - HTML and CSS
  - Javascript Programming
  - DOM Handling
  - Images in Browsers
  - SVG and Animations
  - Responsive Web Design
  - Using HTML Canvas

- Server-side Development
  - The HTTP Process
  - Node.js Programming
  - PHP Programming
  - XML and JSON
  - AJAX Communication
  - Using WebSocket
  - Cookies and Sessions
  - RESTful APIs

Textbook

N/A

Reference books

N/A

Grading Scheme

3 labs	30%	
Mini project	30%	
Final	40%	
Total	100%	

Course Intended Learning Outcomes

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

1. Appreciate the impact of Internet on society
2. Assess HTML and related display techniques including CSS
3. Build browser-based programs using the JavaScript language, including DHTML and event handling
4. Program advanced browser display technologies including SVG, and differentiate between the technologies
5. Develop code for handling communication between web page components such as JavaScript
6. Install and describe the operation of a server such as Apache and develop server side code in an appropriate language such as PHP
7. Identify the most common HTTP instructions and their methods of client-server interaction, including cookies
8. Identify XML and related technologies including DOM handling.
9. Develop complex programs for browser-server communications, including use of Ajax.

Assessment Rubric

N/A