

# **RYERSON UNIVERSITY**

## **Ted Rogers School of Information Technology Management And G. Raymond Chang School of Continuing Education**

### **COURSE OF STUDY 2017-2018**

## **(C)ITM 605 – Client Server Applications**

### **1.0 PREREQUISITE**

The prerequisite for this course is ITM 500. Students who do not have the prerequisite will be dropped from the course.

### **2.0 INSTRUCTOR INFORMATION**

- Name:
- Office Phone Number:
- E-mail address:
- Faculty/course web site(s): <https://my.ryerson.ca>
- Office Location & Consultation hours:
  - Your instructor is available for personal consultation during scheduled consultation hours which are posted on their office door or on the course shell in D2L Brightspace. However, you are advised to make an appointment by e-mail or by telephone before coming to ensure that the professor is not unavoidably absent.
- E-mail Usage & Limits:

Students are expected to monitor and retrieve messages and information issued to them by the University via Ryerson online systems on a frequent and consistent basis. ***Ryerson requires that any official or formal electronic communications from students be sent from their official Ryerson E-mail account.*** As such emails from other addresses may not be responded to.

### **3.0 CALENDAR COURSE DESCRIPTION**

This course covers the concepts and applications of the client/server architectural model for web-enabled data centric information systems, including E-Commerce enterprise systems. The course emphasizes the principles and techniques necessary for the appropriate integration of the web-enabled front-end layer of the system with its business logic counterpart and its backend database. The course may include the use of the .NET development framework along with the VB.NET or C# languages and the MS SQL database server.

## 4.0 COURSE OVERVIEW

The course is an introductory treatment of the fundamental concepts underlying client/server technology. The primary objective of the course is to enable the students to master the nominal skills necessary for the development of a full-fledged web-enabled data management system such as an E-Commerce application. The course is focused on the design, integration and deployment of the various components that make up a web enterprise application. In particular, the course explores the client/server paradigm and its application to the integration of data and business logic within a multi-tier architectural framework for web enterprise information systems.

## 5.0 COURSE OBJECTIVES

Upon completion of the course, students will be able to:

- Design a database system based on a logical model of business data
- Develop data processing and management functions starting from requirements specification of the corresponding business processes
- Integrate data and service components into a working enterprise web-enabled information system.

## 6.0 EVALUATION

The grade for this course is composed of the mark received for each of the following components:

Evaluation Component	Percentage of the Final Grade
Project - 1	15%
Project – 2	15%
Project – 3	20%
Final Exam	50%
<b>Total</b>	<b>100%</b>

**NOTE:** Students must achieve a course grade of at least 50% to pass this course.

### Citation Format for Essays and Term Papers

All essay assignments, term paper and other written works must adhere with APA citation format. Technical errors (spelling, punctuation, proofing, grammar, format, and citations) and/or inappropriate levels of language or composition will result in marks being deducted. You are encouraged to obtain assistance from the Writing Centre ([www.ryerson.ca/writingcentre](http://www.ryerson.ca/writingcentre)) for help with your written communications as needed.

You can find APA guidelines and academic referencing from the following online resources:

a) Ryerson Writing Support Web site:

<http://www.ryerson.ca/content/dam/studentlearningsupport/resources/citation-conventions/APA%20Basic%20Style%20Guide.pdf>

b) Ryerson Library for APA style guide: [www.ryerson.ca/library/subjects/style/apa.html](http://www.ryerson.ca/library/subjects/style/apa.html)

## 7.0 POSTING OF GRADES

- ❖ All grades, on assignments or tests must be posted or made available to students through the return of their work. Grades on final exams must be posted. However, as there may be other consideration in the determination of final grades, students will receive their official final grade in the course only from the Registrar. Final official course grades may not be posted or disclosed anywhere by an instructor.
- ❖ Posting of grades on the Course Management System (D2L Brightspace) is preferred. If grades are posted in hard copy they must be posted numerically sorted by student identification number after at least the **first four digits** have been removed. Instructors must inform students in all course management documentation of the method to be used in the posting of grades. Students who wish not to have their grades posted must inform the instructor in writing.
- ❖ Some graded work will be returned to students prior to the last date to drop a course without academic penalty.

## 8.0 TOPICS – SEQUENCE & SCHEDULE

Session	Topic & Learning Outcomes	Readings	Assignment
1	<b>Introduction to ASP.NET and Visual Studio IDE</b> 1. Build a simple ASP.NET web site	Chapter 1,2	
2	<b>Designing Web Pages with Visual Studio</b> 1. Design web pages 2. Use style sheets	Chapter 3	
3	<b>Programming Your ASP.NET Web Pages</b> 1. Use the basic elements of programming (data types, collections, loops, decisions and basic object oriented programming concepts) to develop ASP.NET web pages	Chapter 4	Assignment 1 requirements provided
4	<b>Introduction to ASP.NET controls</b> 1. Use basic server controls in web pages 2. Explain the operation of the ASP.NET state engine	Chapter 5	
5	<b>Developing consistent looking and easy navigable web sites</b> 1. Use page life cycle, navigation control and programmatic redirection to develop an	Chapter 7,8	

	easily navigable web site with a consistent interface.		
6	<b>Using databases in ASP.NET and Data Binding controls</b> <ol style="list-style-type: none"> <li>1. Use a backend SQL database</li> <li>2. Use data source and data-bound controls to view, modify and insert data through the web site interface</li> </ol>	Chapter 9,10	Assignment 2 requirements provided
7	<b>Introduction to LINQ and ADO.NET Entity Framework</b> <ol style="list-style-type: none"> <li>1. Gain working knowledge about LINQ and ADO.NET Entity Framework</li> </ol>	Chapter 9, 10	
8	<b>User Controls and Validation</b> <ol style="list-style-type: none"> <li>1. Make use of user controls and validation in web site design</li> </ol>	Chapter 11,12	
9	<b>ASP.NET with AJAX</b> <ol style="list-style-type: none"> <li>1. Gain working knowledge about AJAX</li> <li>2. Create web services</li> </ol>	Chapter 13	
10	<b>Advanced use of Web Controls and Securing ASP.NET applications</b> <ol style="list-style-type: none"> <li>1. Handle errors occurring in data source controls and gain experience in other advance uses of web controls</li> <li>2. Add a security layer to a web site</li> </ol>	Chapter 15	Assignment 3 requirements provided
11	<b>Personalizing Web Sites, Exception Handling, Debugging, and Tracing in ASP .NET Applications</b> <ol style="list-style-type: none"> <li>1. Personalize a web site</li> <li>2. Learn how to programmatically catch and handle exceptions</li> </ol>	Chapter 16,17	
12	<b>Deploying ASP.NET Applications</b> <ol style="list-style-type: none"> <li>1. Deploy and configure a web site</li> </ol>	Chapter 19	
13	Final Exam		

## 9.0 TEACHING METHODS

This course will incorporate the following teaching/learning methods: lectures, labs, and individual course projects. While the lecture is used for the presentation and discussion of the concepts and applicable examples, the lab is dedicated to guidance and tutoring in relation to the design, implementation, integration and deployment of the system under development as part of the course project.

## 10.0 TEXTS & OTHER READING MATERIALS

**Title:** Beginning ASP.NET for Visual Studio 2015

**Author:** William Penberthy

**Publisher:** Wiley

**ISBN:** 978-1119077428

## 11.0 VARIATIONS WITHIN A COURSE

All sections of a course (Day and CE sections) will follow the same course outline and will use the same course delivery methods, methods of evaluation, and grading schemes. Any deviations will be posted on D2L Brightspace once approved by the course coordinator.

## 12.0 OTHER COURSE, DEPARTMENTAL, AND UNIVERSITY POLICIES

- For more information regarding course management and departmental policies, please consult the ‘**Appendix of the Course of Study**’ which is posted on the Ted Rogers School of Information Technology Management website, <http://www.ryerson.ca/content/dam/itm/documents/cos/Appendix.pdf>. This appendix covers the following topics:
  - 12..1 Attendance & Class Participation
  - 12..2 Email Usage
  - 12..3 Request for Academic Consideration
    - 12..3.1 Ryerson Health Certificate
    - 12..3.2 Academic Accommodation for Students with Disabilities
    - 12..3.3 Religious, Aboriginal or Spiritual Observance
    - 12..3.4 Re-grading and Recalculation
  - 12..4 Examinations & Tests
    - 12..4.1 Period of Prohibition from Testing
    - 12..4.2 Make-Up of Mid-Term Tests, Assignments and Other Assessments During the Semester
    - 12..4.3 Make –Up of Final Exams
    - 12..4.4 Missing a Make-Up
  - 12..5 Late Assignments
  - 12..6 Standard of Written Work
  - 12..7 Academic Grading Policy
  - 12..8 Academic Integrity
    - 12..8.1 Turnitin.com
  - 12..9 Student Rights