

School of Information Management

**ELCM 351 ADVANCED INTERNET DESIGN AND DEVELOPMENT**

Trimester 1, 2014

**COURSE OUTLINE**

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**Names and Contact Details**

**Course Coordinator**

Mr Christopher Wong

Email: [Christopher.Wong@vuw.ac.nz](mailto:Christopher.Wong@vuw.ac.nz)

**Senior Tutor**

Ms Weiwei Li, RH 502

Email: [weiwei.li@vuw.ac.nz](mailto:weiwei.li@vuw.ac.nz)

Phone: (04) 463 6998

**Trimester Dates**

Monday 3<sup>rd</sup> March – Friday 6<sup>th</sup> June

**Withdrawal from Course**

1. Your fees will be refunded if you withdraw from this course on or before Friday 14<sup>th</sup> March 2014.
2. The standard last date for withdrawal from this course is Friday 16<sup>th</sup> May. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an '*Application for Associate Dean's Permission to Withdraw Late*' including supporting documentation. The application form is available from either of the Faculty's Student Customer Service Desks.

**Class Times and Room Numbers**

- LECTURES: Monday 9:30am-11:20am RH LT3.
- WORKSHOPS: 1 hour/week, students will sign up for one slot
  - The individual slot times and venues will be announced on Blackboard.
  - Sign-up for your workshop slot will be available on <https://signups.victoria.ac.nz>

## Prescription

The technical and practical skills required for designing, implementing and administering dynamic e-commerce enabled websites. The main objective of this course is to convey the core theoretical concepts central to modern day e-commerce applications.

## Course Learning Objectives

The main objective of this course is to convey the core theoretical concepts central to e-commerce applications. This approach facilitates the students' understanding of how HTML, CSS, a server-side programming language, and databases work together to enable three-tier e-commerce applications. It further demonstrates that the core concepts do not rely upon a particular development language or environment. A solid foundation in the core fundamentals leaves the successful student armed to apply that knowledge easily in diverse environments. It is not the aim of this course to teach you how to use a certain tool since this will only adept you with that tool. Instead, you will be taught a craft such that you can adeptly apply whatever your future tool will be. More specifically, the learning objectives of ELCM 351 are related to the FCA graduate attributes and ELCM Major attributes as follows:

Learning Objective	On completion of this course, students will be able to:	Graduate Attributes	Major Attributes
LO1	describe the concepts of Web architecture and design	LG2	MA4, MA5
LO2	use the technologies required to design and develop Web-based applications	LG1	MA2, MA3
LO3	develop, test and deploy Web applications with multimedia content, including the required forms to allow user interaction with the data objects	LG1, LG4	MA2, MA3
LO4	explain how server-side script and components allow flexible production of web pages on demand to suit user requests	LG2	MA2, MA3, MA4
LO5	connect Web pages to a database file or server in order to allow the user to view and update data	LG1	MA3
LO6	apply the concepts of Internet security and multimedia in e-business applications	LG1, LG2	MA6
LO7	summarise and discuss the future trends in modern e-business application development	LG2, LG4	MA4, MA5

## Course Delivery

The delivery style of this course allows you to put into practice in the workshops the skills you are learning during the lectures and from the textbook. Two class tests (conducted during lectures L6 and L11) will evaluate your understanding of the core principles that underlay modern e-commerce applications. The projects will test your ability to implement e-commerce applications in a real environment. At the end of the course you should have the skills required of a professional Website developer, and the confidence to put your skills into practice in the workplace. There is no final exam for this paper.

## Course Content

A tentative schedule of lectures and workshops is illustrated in the following table. Note that the course coordinator reserves the right to make changes during the trimester.

<b>Week/ Lecture on:</b>	<b>Topics and Readings</b>	<b>Complete Projects of</b>
1 3 <sup>rd</sup> March	Introduction to Web Applications Reminder: Structure, Content and Styling in the Presentation Layer <i>Readings provided through Blackboard</i>	
2 10 <sup>th</sup> March	Introduction to server-side development with PHP <i>Chapter 1</i>	Chapter 1
3 17 <sup>th</sup> March	Using PHP: Working with Functions, Decision- Making Statements and Flow-Control Statements <i>Chapter 2</i>	Chapter 2
4 24 <sup>th</sup> March	Techniques for Manipulating Strings <i>Chapter 3</i>	Chapter 3
5 31 <sup>st</sup> March	Handling User Input <i>Chapter 4</i>	Chapter 4
6 7 <sup>th</sup> April	<b>Test 1</b> Read, Write, and Manipulate Files on the Web Server. <i>Chapter 5</i>	Chapter 5
7 14 <sup>th</sup> April	Advanced Web Development Techniques Involving Indexed and Associative arrays <i>Chapter 6</i>	Chapter 6
Mid-trimester and Easter Break (18 <sup>th</sup> April – 4 <sup>th</sup> May)		
8 5 <sup>th</sup> May	Working with Databases and MySQL <i>Chapter 7</i>	Chapter 7
9 12 <sup>th</sup> May	Manipulating MySQL Databases with PHP <i>Chapter 8</i>	Chapter 8
10 19 <sup>th</sup> May	Managing State Information <i>Chapter 9</i>	Chapter 9
11 26 <sup>th</sup> May	<b>Test 2</b> Overview of Web 2.0 and other technologies <i>Readings provided through Blackboard</i>	Guided Project
<b>Due date for projects: Monday 9<sup>th</sup> June, 5pm</b>		

## Readings

The following textbook is mandatory to buy:

Don Gosselin, Diana Kokoska and Robert Easterbrooks (2011), PHP Programming with MySQL, Second Edition, Course Technology, Cengage Learning. The e-book is available at <http://www.cengagebrain.co.nz/shop/en/NZ/storefront/newzealand?cmd=CLHeaderSearch&fieldValue=9780538745840>

ISBN10: 0-538-74584-3, ISBN13: 978-0-538-74584-0.

The following book covers all the material required for a successful start of ELCM351:

Terry Felke-Morris (2012), *Web Development and Design Foundations with HTML5*, Sixth Edition, Pearson.  
ISBN-10: 0132783398 • ISBN-13: 9780132783392

## Materials and Equipment

### *Lectures:*

Students are expected to prepare for lectures by reading the relevant book chapters in advance. The chapters must be reviewed again after the lectures. Each chapter of the textbook contains exercise questions that help to validate and deepen your knowledge of the subject. It is recommended to attempt answers to all these questions. This will result in an excellent preparation for the class tests and the project thread.

### *Workshops and Projects:*

The time in the workshops is mainly used to make progress on your discovery projects as described in the textbook. You are expected to have read the relevant chapter and the instructions for the projects prior to the allocated workshop time so that work can start as soon as you arrive. Please double-check that you do have a valid computer account. You must use the ELCM351 Virtual PC environment to work on your project. This environment can be accessed in any SIM Lab. Your project will be marked after the due date based on the content you provide in this environment. *Apart from the feedback during the workshop hours you will also have the opportunity to ask for feedback on the work you have done prior to Week 7.* The software required for the project thread is provided within the ELCM351 Virtual PC environment. Note the **Reset button** which will delete all your work in case you confirm to reset your ELCM351 Virtual PC environment. It is your responsibility to use this button with caution. Claims that you have accidentally pressed the reset button will not be considered. You can also install the software on your own computer by following the guides that are made available to you. However, no technical support will be provided for issues that relate to your own computer.

## Practicum Arrangements

### *Workshop Allocation Procedure*

Sign-up to your workshop slot will be available on the sign-up system: <https://signups.victoria.ac.nz>

You must sign up for the workshop sessions yourself in the first week. Please contact the senior tutor if you have not signed up at that time. You must select a time slot that fits your timetable and enter your name on only one of the lists provided. Once you have been allocated to a workshop, it is your responsibility to know where and when your workshop is scheduled.

### *Hints*

- Make sure you consult your personal timetable, so that your selected workshop time does not clash with other classes. It will not be easy to change your selection once accepted.
- If your name appears on more than one workshop list, the senior tutor reserves the right to put you in the workshop of her choice.
- Each workshop slot can take up to 28 students. When a list is full, it is removed from circulation. As the names are entered on a first-come-first-served basis, it is strongly recommended that you attend to this early, otherwise you may be allocated to a less desirable time slot.
- If you have any serious problems about the allocations, see the senior tutor.

### *Lab Access*

Information Systems and Electronic Commerce students have access to a range of computer lab facilities. This means that you can still undertake this course even if you do not have a computer at home. Like all university students you are able to use any SCS computer lab throughout the University (this includes labs in the Murphy building, the Library and in the Law School) as long as you have a current SCS account. If you do not have a current SCS account, contact the SCS helpdesk in either the library or the Murphy building. However, the ELCM351 Virtual PC environment is not accessible from the SCS labs. Please note that specialist software found in the SIM labs is not available in all the SCS labs. There are two kinds of lab access provided for this course:

- Scheduled workshop sessions: Workshop supervisors will be in attendance and available to assist you and to answer questions. This is your main opportunity to obtain technical help. Your workshop supervisors are not obliged to assist you if you have not attended your scheduled sessions. Workshop attendance is not compulsory but will be monitored.
- Ad-hoc access: The lab offers access via student ID cards unless booked for another class. Students should check the booking schedules on the lab doors before entering a laboratory to ensure they are not interrupting a class and they can finish their work before the next scheduled class. You may be asked to leave by the lab supervisor if the machine you are using is required for a scheduled class.

### **Expected Workload**

You are expected to devote a minimum of 12 hours a week to this course. This is an average, and the workload is likely to vary from week to week during the trimester. As a guide you may choose to spend the following time on the following course components:

Lectures	2 hours
Workshops	1 hour
Reading & Understanding Course Notes and Material	4 hours
Exercises and Projects	5 hours
	<hr/>
	12 hours

Note that students are expected to attend all lectures. Failure to do so will, most likely, limit your ability to perform well in any of the assessment components. It is strongly recommended to work on the projects continuously. A timely completion of your work on the projects, as outlined in the course content table, will allow you to focus on the preparation for the class tests.

### **Assessment**

From Trimester 1, 2014, a revised Assessment Handbook will apply to all VUW courses: see <http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

In particular, there will be a new grade scheme, in which the A+ range will be 90-100% and 50-54% will be a C-.

Assessment component	Date due	Learning objectives	Contribution to final grade
Class Test 1	Monday 7 <sup>th</sup> April, 9:30am-10:20am	LO1, LO2, LO3, LO4	25%
Class Test 2	26 <sup>th</sup> May, 9:30am-10:20am	LO2, LO3, LO4, LO5, LO6, LO7	25%
Projects	by Monday 9 <sup>th</sup> June, 5pm	LO2, LO3, LO5, LO6	50%

The *two class tests* will be conducted during the first hour of lectures in week 6 and week 11, respectively. Unless otherwise stated, all material covered up to the week prior to the class test can potentially be assessed. Details will be advised closer to the date. In the projects you will apply what you have learned to a single, comprehensive Web site. The Web site will become more diverse and functional as you progress through the course. In addition, many of the projects can be translated or modified into real-world Web applications. You will complete all projects within your **My ELCM351 Virtual PC** environment. After the due date, the contents of your ELCM351 Virtual PC environment will be marked for the quality of the functionality, code and documentation that you provide. A detailed marking sheet will be made available to you at the beginning of the course.

## Examinations

There is no final exam.

## Penalties

Access to the ELCM351 Virtual PC environment will only be granted until the deadline of the project thread. In fairness to other students, project threads submitted outside your ELCM351 Virtual PC environment will not be accepted. It is your responsibility to complete the project thread in time within your ELCM351 Virtual PC environment. For the same reason, failure to sit the class tests will automatically result in zero marks for the test. In the event of bereavement or prolonged illness affecting your ability to meet the project deadline or sit the class tests, discuss your situation with the course coordinator as soon as you are able to. You must verify your claim, e.g., produce a medical certificate. By doing so, you agree to the course coordinator seeking verification of your documentation. Extensions to the projects or alternative arrangements for a test will only be granted under these conditions.

## Use of Turnitin

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and submitted to Turnitin. A copy of submitted materials will be retained on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

## **Mandatory Course Requirements**

While attendance of the lectures and workshops is not a mandatory requirement, it will largely facilitate your learning process and help you to perform well in the tests and web site project.

If you cannot complete an assignment or sit a test, refer to [www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat](http://www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat)

## **Group Work**

There is no group work and all assessments are based on individual work. However, students are encouraged to form study groups to exchange their understanding of the course contents and to provide feedback to the website projects.

## **Class Representative**

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the course coordinator and the class. The class representative provides a communication channel to liaise with the course coordinator on behalf of students.

## **Communication of Additional Information**

Additional information or information on changes will be conveyed to students via Blackboard. It is the responsibility of students to check Blackboard regularly for updates.

## **Student feedback**

Student feedback on University courses may be found at [http://www.cad.vuw.ac.nz/feedback/feedback\\_display.php](http://www.cad.vuw.ac.nz/feedback/feedback_display.php)

## **Link to general information**

For general information about course-related matters, go to <http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

## **Note to Students**

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and academic audit. The findings may be used to inform changes aimed at improving the quality of VBS programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

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