

School of Information Management  
**INFO 102 BUSINESS APPLICATION PROGRAMMING**  
 Trimester Two 2010  
**COURSE OUTLINE**

This course provides an introduction to the fundamental concepts of programming for business application development. The course covers the program development lifecycle: gathering requirements, designing a solution, implementing a solution in a programming language, and testing the completed application. The programming language used is Visual C#.Net.

	Staff Name	Room	Email & Telephone	Office Hours
<b>Course Coordinator and Lecturer</b>	Diane Strode	EA207	<a href="mailto:diane.strode@vuw.ac.nz">diane.strode@vuw.ac.nz</a> (04) 463 7436	Monday 12:30 pm – 1:30 pm Wednesday 12:30pm – 1:30pm
<b>Senior Tutor</b>	Gemma Gerondis	EA110	<a href="mailto:gemma.gerondis@vuw.ac.nz">gemma.gerondis@vuw.ac.nz</a> (04) 463 6659	Monday-Friday 9:00-5:00pm

### Trimester Dates

Teaching Period: Monday 12<sup>th</sup> July – Friday 15<sup>th</sup> October 2010  
 Study Period: Monday 18<sup>th</sup> October – Thursday 21<sup>st</sup> October 2010  
 Examination Period: Friday 22<sup>nd</sup> October – Sunday 13<sup>th</sup> November 2010 (inclusive)

### Withdrawal from Courses

Your fees will be refunded if you withdraw from this course on or before 23 July 2010.

The last date for withdrawal from this course is the three-quarter point of the teaching period, i.e. Friday 24 September. After that date, permission to withdraw requires the permission of the Associate Dean (Students) as set out in section 8 of the Personal Courses of Study Statute <http://policy.vuw.ac.nz/Amphora!~policy.vuw.ac.nz~POLICY~000000001743.pdf>

To apply for permission, fill in the Late Withdrawal form available from either of our Student Customer Service Desks (listed on page 7).

### Credits and Prerequisites

Credit Value: 15 points  
 Prerequisites: None

### Class Times and Room Numbers

Lectures      Monday      11am – 11: 50am      EA LT006  
                   Wednesday      11am – 11: 50am      EA LT006  
 Workshops    See **Workshop Signup Instructions** on page 6, available on Blackboard in week 1.  
 Tutorials      See **Workshop Signup Instructions** on page 6, available on Blackboard in week 1.

## Course Content

This timetable may be adjusted as the course progresses to allow for visiting speakers, additional topics, or revision sessions.

Week	Week beginning	Lecture Workshop Tutorial	Topic	Required Reading B & M	Optional Resources BDLC	Assignment due dates
1	12 July	Lec 1	Introduction to course	Chap 1	Tier 1, Lesson 1	
		Lec 2	Introduction to C#		Tier 1, Video: Intro to Windows	
			No workshop		Tier 1, Video: Intro to C# 2008	
2	19 July	Lec 3	The C# IDE / Errors in C#		Tier 1, Lesson 5	
		Lec 4	Gathering requirements and user interface design	Chap 2 App C	Tier 2, Video 2	
		Wks 1	First program, forms and controls			
3	26 July	Lec 5	Identifiers Exception handling	Chap 3	Tier 1, Lesson 3	
		Lec 6	Calculations	Chap 3		
		Wks 2	Using variables, constants, and calculations			
4	2 Aug	Lec 7	Algorithms and logic depiction	Chap 4	Tier 2, Lesson 4	<b>1: Mon 2 Aug 5pm</b>
		Lec 8	Decision structures	Chap 4	Tier 1, Lesson 4	
		Wks 3	Using decision structures			
5	9 Aug	Lec 9	Debugging Event handling	Chap 1		
		Lec 10	System and software development lifecycles		Tier 2, Lesson 1	
		Tut 1	Q & A			
6	16 Aug	Lec 11	Methods	Chap 5 App B	Tier 2, Video 3	
		Lec 12	Multiform projects, menus, dialog boxes	Chap 6		
		Wks 4	Using methods, multiple forms, menus, and dialog boxes			
<b>Monday 23 Aug – Friday 3 Sept Mid term break</b>						
7	6 Sept	Lec 13	Iteration	Chap 7	Tier 2, Video 5	
		Lec 14	Arrays	Chap 8		<b>2: Wed 6 Sept 5pm</b>
		Wks 5	Using loops and arrays			
8	13 Sept	Lec 15	Persistent data	Chap 11		
		Lec 16	Principles of object orientation	Chap 12	Tier 1, Lesson 2	
		Tut 2	Q & A			
9	20 Sept	Lec 17	Business objects 1	Chap 12		
		Lec 18	Business objects 2	Chap 12	Tier 2, Lesson 6	
		Wks 6	Creating and using objects			
10	27 Sept	Lec 19	Graphics	Chap 13		
		Lec 20	Quality assurance 1			
		Wks 7	Graphics			
11	4 Oct	Lec 21	Quality assurance 2	App D		
		Lec 22	Programming; history and types			<b>3: Wed 13 Oct 5pm</b>
		Tut 3	Application Testing			
12	11 Oct	Lec 23	The .Net framework		Tier 2, Video 7	
		Lec 24	Exam preparation			
		Tut 4	Revision			

## Course Learning Objectives

By the end of this course the student should be able to:

1. Understand and apply fundamental object oriented programming concepts.
2. Understand, create, and apply models and logic depiction methods in designing application programs.
3. Understand and apply quality concepts in the development of application software.
4. Understand the history and purpose of different types of programming languages used to solve business problems.
5. Understand the program development lifecycle and how it is related to information systems development.

## Course Delivery

This course involves the practical application of computer programming and learning material for this course is provided using:

1. Lectures
2. Workshops held in computer laboratories
3. Tutorials held in classrooms
4. The on-line learning support tool Blackboard

Lectures provide theory and demonstrate the concepts needed to cover the course objectives.

Workshops provide material that extends the lectures and are designed to give you the experience needed to complete the practical assignments. Therefore attendance at the lectures and workshops is crucial for your success in the course. Tutorials are designed for small classes where programming concepts will be demonstrated and you will have the opportunity to discuss and ask questions about the details of the course learning objectives. Blackboard will be used to support the course in a number of ways.

### Blackboard

Blackboard is used as a repository for course materials such as lecture notes and workshop materials. Occasionally additional materials will be posted on Blackboard if extra explanatory information is needed to support the lecture topics. Quizzes are also available here, along with links to appropriate on-line resources. In addition, all class announcements are posted on the course Blackboard site. Because Blackboard is very important resource centre for this course it is important that you *check Blackboard frequently*, at least twice a week.

Lecture notes will usually be provided on Blackboard but there may also be additional explanatory material provided in the lectures that is not on Blackboard. Therefore the notes on Blackboard are not a substitute for attending lectures.

A Blackboard discussion forum will be made available and moderated. These forums are for general discussion, posing questions, and assignment work. Both students and staff may answer your questions. If a particular question has not been answered clearly on the discussion board, please make an appointment with either the lecturer or tutors, for further explanation.

The INFO102 Blackboard website can be accessed at: <http://blackboard.vuw.ac.nz>

## Expected Workload

You are expected to spend about 10 hours per week for 15 weeks on this 15 point course. This includes lectures, reading the set material, preparing for and attending workshops and tutorials, assignment work, revision for exams, and time spent researching and practicing your programming skills.

## Materials and Equipment

There is no requirement for equipment for this course. The workshops are open for 24 hours each day every day, and are accessible by swipe card if you are enrolled in School of Information Management courses. The software you need to complete workshops and assignments is provided on these machines. However if you want to work on your own computer you will be able to install free versions of Visual C#.Net (2008 versions only). Details about this will be provided on Blackboard. Note that the University cannot support your personal computer or any course related software installed on it even if it is supplied by the School. If you do work on your own computer you MUST test their work on the SIM laboratory computers before submitting your assignments. In addition, Visual C# is a Microsoft product and may require additional software to operate successfully on computers with non-Microsoft operating systems.

## Readings

### Required textbook

Bradley, J. C., & Millsbaugh, A. C. (2010). *Programming in Visual C# 2008*. Boston: McGraw Hill Higher Education.

### Recommended resources

- The Microsoft Beginner Developer Learning Center (BDLC) website has .Net and C# learning resources at: <http://msdn.microsoft.com/en-us/beginner/default.aspx>. This resource has sections you can study that complement the lecture topics.
- There are a number of books on C# in the library, however many of them are not suitable for this course, although they may be helpful for individual topics. The following book covers many of the topics covered in this course and in a similar order. Please note however, this is not a textbook and is not an adequate substitute for the required textbook.  
Murach, J. (2006). *Murach's C# 2005*. Mike Murach and Associates.
- C# for Sharp Kids. This e-book, and its associated sample C# code, is available on the Virtual Machines in MY201 Labs.

## Assessment Requirements

Assessment	Topic	Contribution	Learning Objectives	Due Dates
Workshops	Selected topics	10% (see below)	1, 2, 3	Student selected
Assignment 1	C# fundamentals	10%	1	Monday 2 August 5pm
Assignment 2	C# fundamentals, decision and iteration	20%	1, 2	Wednesday 6 Sept 5pm
Assignment 3	File IO, arrays, business objects, testing	20%	1, 2, 3	Wednesday 13 Oct 5pm
Final Examination	A 2 hour examination covering all topics	40%	1, 2, 3, 4, 5	
<b>Total</b>		<b>100%</b>		

## Mandatory Course Requirements

To pass this course, you must do all of the following:

1. Achieve an overall course mark of 50% or more.
2. Attend at least five of the seven workshops and have your attendance recorded.
3. Obtain at least five workshop exercise signoffs during the timetabled workshop.
4. Sit the final examination and achieve a mark of at least 40%.

## Extensions

Extensions must be sought from the Course Coordinator *prior* to the deadline for assessments. Extensions cannot be granted for workload reasons. You must verify your claim, that is, you must provide documents to support your application, such as a Medical Certificate. Your application may be verified by the Course Coordinator with any external parties.

In the event of bereavement or prolonged illness affecting your ability to meet the deadline, please discuss your situation with the Course Coordinator as early as possible.

Please note that certificates from the Student Counselling Service are no longer accepted as documentary evidence to support an extension.

## Penalties

In fairness to other students, if your work is submitted after the deadline and without an extension granted or without a serious excuse (supported by medical certificate or other official documentation), you will incur a 10% penalty for each day that the work is late, weekends included. This is calculated based on the marks you achieved for the assignment. Penalties accrue each day at 1:00 pm.

Please note that certificates from the Student Counselling Service are no longer accepted as documentary evidence to support an extension.

## Workshops

You will attend a 2 hour C# workshop each week where you work on a programming exercise. These exercises are primarily designed to give you the skills to complete your assignments. Workshop exercises are worth 10% of the total course mark. When you have completed the workshop exercise a tutor will review your work, give you a mark, and record a sign-off. You must achieve 5 signoffs in total (each signoff is worth 2%). Once you have completed the workshop exercise you can then work on your C# assignments. Please follow the workshop signup instructions given below.

Workshop exercises are made available on the Friday of the week before they must be signed off. This is so that some preparatory work can begin (i.e. C# Windows form development). After workshop 1, you are expected to begin working on the workshop exercises in your own time before the scheduled workshop time. The workshop session is for completing the exercise, having questions addressed, and achieving signoff.

## Tutorials

Tutorials sessions allow you to complete exercises related to the course content and to discuss course issues with your tutor. There is no assessment element to these tutorials; they are primarily to assist you in understanding the course content.

## Examinations

You are obliged to attend an examination for this course at the University during the following formal examination period.

**Examination Period:** Friday 22 October – Saturday 13<sup>th</sup> November 2010 (inclusive)

The examination will not require calculators or other electronic equipment.

## Quality Assurance Process

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

## Scaling

To obtain a fair and consistent distribution of marks relative to assessment difficulty, scaling of marks may be employed on some or all assessments.

## Special Notes

- **Books** – for this introductory level course, books on C# 2005 are also suitable for learning C# 2008.
- **Software** - do not write the code for the workshop exercises or the assignments using C# 2005, you must use C# 2008. Submissions in 2005 format cannot be marked.
- **No extension is possible based on a student's workload.** You are expected to manage your workload to ensure there is sufficient time to complete assessments as required.
- **You are expected to back up your work** – From time to time files are lost, computers crash, etc., so it is critical that you get into the habit of backing up important files (e.g. on CD, DVD, pen drive, or other external media). Extensions will **not** be granted due to files lost and not backed up!
- **Do not leave submitting your work to the last minute** – technology problems do occur (especially on the day an assignment is due). Printers may be overloaded, servers may be slow, etc. Be smart and submit your work in plenty of time. Extensions will **not** be granted due to problems with submitting work.
- **Be careful to submit your assignment according to instructions given.** If your work is submitted using a method that has not been specified, it will **not** be marked.
- **Working together** – You are encouraged to discuss aspects of assignment work with others. However, when it is time to develop your solution and write your assignment, **the words, diagrams and code you use must be ENTIRELY your own. Markers have been instructed to check for signs of plagiarism and joint efforts.**
- **Using other's work in programming** – You are encouraged to use on-line resources to help you learn. However when you include other's work within your own work (e.g. method code provided by an on-line user group) you must acknowledge the source you used. You can place that acknowledgement in a comment within your code. If you do not acknowledge the contribution of others to your work then you have **plagiarised** that work and will be penalised according to the University Statute on student conduct, discussed below. You are not required to cite algorithms, data structures, or source code from lecture notes or the recommended text. Note that in this course it is expected that, in general, you will complete the work without recourse to other's code.

## Signing up for your Workshop / Tutorial

You are required to sign up for, and attend, one workshop per week. Workshops last for two hours. In some weeks the workshop is replaced with a tutorial of one hour. Please check the timetable on page 2 for the workshop and tutorial schedule. All workshops are held in MY201. Your tutorial room will be allocated and announced on Blackboard once the workshop sign up is complete. Your allocated tutorial will be scheduled at the same time slot as your workshop.

**Workshops start in Week 2. Therefore you need to sign up for a workshop/tutorial session by 5pm, Thursday of Week 1. The workshop signup system is called S-cubed. Instructions for using S-cubed are available on Blackboard. S-cubed is available at: <https://signups.victoria.ac.nz/>**

**Workshop and tutorial hopping is not allowed.** If you need to temporarily change to another workshop/tutorial, please print and fill out the Tutorial/ Workshop Change Form (can be found under Course Information tag on Blackboard). Please note:

1. You must provide valid reasons (i.e. a doctor's appointment) and provide documents to support your application (i.e. medical certificate).
2. The form must be signed by the Senior Tutor or the Course Coordinator. You will only be signed off from the replacement workshop or tutorial if you show the class tutor the signed change form at the beginning of the workshop or tutorial.
3. Certificates from the Student Counselling Service are no longer accepted as documentary evidence.

## **Faculty of Commerce and Administration Offices**

### Railway West Wing (RWW) - FCA Student Administration Office

The Student Administration Office is located on the ground and first floors of the Railway West Wing. The ground floor counter at Rutherford House is the first point of contact for general enquiries and FCA forms. Student Administration Advisers are available to discuss course status and give further advice about FCA qualifications.

### Easterfield (EA) - FCA/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce & Administration, Education and Law is situated in the Easterfield Building - it includes the ground floor reception desk (EA005) and offices 122 to 131 (Level 1). The office offers the following services:

- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- FCA Student Administration forms (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

The Faculty web site is at: <http://www.victoria.ac.nz/fca/studenthelp/>

## **Class Representative**

A class representative will be elected in the first week of the course, and that person's name and contact details will be 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**

All formal notices relating to this course will be posted on the Blackboard website.

Final grades will be posted on the Information Systems noticeboard located on the ground floor of the Easterfield Building, near seminar room EA 001.

To ensure that individuals and the whole class can be contacted speedily please check that we have your correct email address or addresses on the Student Records system. This can be checked and updated using the myVictoria web portal (My Study tab, Personal Information section, Update Email Addresses).

## **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 subject to checking by Turnitin. Turnitin will retain a copy of submitted materials 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.

**For the following important information follow the links provided:**

### **Academic Integrity and Plagiarism**

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

### **General University Policies and Statutes**

<http://www.victoria.ac.nz/home/about/policy>

### **AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support**

[http://www.victoria.ac.nz/home/about\\_victoria/avcacademic/Publications.aspx](http://www.victoria.ac.nz/home/about_victoria/avcacademic/Publications.aspx)

### **Faculty of Commerce and Administration Offices**

<http://www.victoria.ac.nz/fca/studenthelp/>

### **Manaaki Pihipihinga Programme**

[http://www.victoria.ac.nz/st\\_services/mentoring/](http://www.victoria.ac.nz/st_services/mentoring/)