



Carleton
UNIVERSITY

SPROTT
SCHOOL OF BUSINESS

CARLETON UNIVERSITY
SPROTT SCHOOL OF BUSINESS
BUSI 2402 A
FALL 2020

BUSINESS APPLICATION DEVELOPMENT

Instructor: Alejandro Ramirez, PhD

Office:

Office Hours: Wednesday 10:00 – 12:00 Hrs.

Email: Alex.Ramirez@Carleton.ca

Phone Number:

TA:

Office Hours:

Email:

Class Times

<i>Section</i>	<i>Day</i>	<i>Time</i>
A	Thursday	14:35 – 17:25 hrs.

Lab Times/Tutorials [From 2020/09/14 to 2020/12/11]

<i>Section</i>	<i>Day</i>	<i>Time</i>	<i>Location</i>
A1	Monday	13:35 – 14:25	Online
A2	Monday	12:35 – 13:25	Online
A3	Monday	11:35 – 12:25	Online

Modality: * Lectures will include synchronous and asynchronous components every week. The instructor will be available to students in a Chat room during the scheduled lecture time. Tutorials are synchronous.

Pre-requisites & precluded Courses: Second year standing



Course Calendar description from the 2020/2021 University calendar:

BUSI 2402 [0.5 credit]

Business Applications Development

Introduction to programming – Fundamentals of structured and object-oriented programming using an OO programming language – Treatment of objects, abstraction and inheritance, event-driven programming, iteration, sequence, and selection – Consideration of algorithms for searching, sorting, string processing and numerical analysis. Emphasis on the development of business applications

Lectures three hours a week and tutorial one hour a week

Course Description:

The best way to perform well in this course is to practice what you learn. Spend time coding up the examples presented in class, talk to your classmates, and the course's teaching assistant(s). Do your assignments on your own. Aim to get programs written at least 4 days before the due date. This gives you time to test your code, review it, and properly comment it and present it.

Keep up with your reading. Your book contains many good examples which you can study for ideas. Due to the heavy workload of this course, many topics may only get cursory mention during the lectures. You will pick up the required details by reading your book. There are many books on JAVA programming. Seek out other books in our library if you need additional material. No single book contains enough examples or information to satisfy everyone.

We will ask you to THINK as a business analyst, not a programmer. Your job is to come up with solutions to problems you have never seen before. The solution is not in a textbook. As a beginner programmer, you will attempt to construct a viable solution using the tools you learn in your courses. You will be expected to think and use your creativity to solve problems. This is the fun part of this work, dreaming up ideas to solve problems.

Ask many questions. Ask your instructor, TAs, and classmates. You will learn a great deal by talking about various issues related to computer-based business solutions with your classmates. Make this a part of your learning style. Unless you are prepared to spend a significant amount of time working, trying out the examples, experimenting with them, and doing some of the things above, you will find it difficult to both complete the assignments, and pass the midterm and final exams.

Learning Outcomes:

- To develop proficiency in the Java Programming Language
- To understand and apply the Object-Oriented Approach using UML notation
- To understand and develop Class diagrams to represent the group of objects needed to develop a business application
- To translate the Class Diagram associated with a business application into fully functional Java classes, with all their attributes, constructors, relationships, and methods

Reading(s)/Textbook(s)/Required Materials (incl. technical requirements, i.e., webcam):

Java Early Objects with zyLabs

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: **CARLETONBUSI2402RamirezFall2020**
3. **Subscribe**

This text is tailored to this course and it is designed specifically for Online learning

Additionally students will need the **Java Virtual Machine** and **Eclipse Integrated Development Environment** installed in their own computers [*recommended*] or use Sprott's Virtual Desktop Interface through Carleton's CU Desktop [<https://cudesktop.carleton.ca/>].

Students will be guided by the TAs how to install these resources in their computers during the first tutorial on September 21, 2020 – therefore is extremely important to attend the tutorial at the time you are registered

Course Requirements & Methods of Evaluation (including due dates):

Students will be evaluated in this course according to the following:

Component	Weight %
4 Assignments	35%
A01 [DUE: Wednesday September 23, 2020] 10:00 PM	5%
A02 [DUE: Wednesday October 7, 2020] 10:00 PM	10%
A03 [DUE: Wednesday November 11, 2020] 10:00 PM	10%
A04 [DUE: Wednesday December 2, 2020] 10:00 PM	10%
Midterm: Available October 20 - 23	25%
30 minutes CU Learn quiz I	10%
30 minutes CU Learn quiz II	10%
UML take home question	5%
Participation Activities in ZyBook completed	10%
Take Home Final Exam	30%

Assignments

Four **Individual** Assignments are due on Carleton's CU Learn at the date and time indicated on the course's website. Marks and marked assignments will be available there as well.

Late Assignments

There will be **ONLY** a 24 hours period to submit late assignments. If an assignment is marked late it will be penalized 25%. No assignments will be accepted after that. Missed assignments will be tabulated as 0.

Solutions

After the 24 hours window for late assignments, a solution to the assignment will be available in the course's site on Carleton's LMS. This is important because some assignments may build on previous ones. Obviously, we cannot accept any assignment after the solution is posted.

Midterm

There will be a midterm exam covering material in the textbook and taught in class up to and including the lecture before the exam. The exam will include 2 – 30 minutes quizzes in CU Learn. These are timed quizzes. Once you start them you will have only 30 minutes to complete them. You can decide when to take them, they will be available **from 8:00 am on Tuesday October 20 until 10:00 pm on Friday October 23**. It also includes a business case in CU Learn based on your student number about creating a Class Diagram. A PDF containing the student's solution must be uploaded to CU Learn before the deadline.

Participation Activities in ZyBook completed

The text includes participation activities to help you understand the concepts while reading the text. You cannot get them wrong, but you need to work on them to indicate that you completed them. These will be prorated accordingly up to 10% of your final grade

Take Home Final Exam

The final exam will take place during the University's examination period **December 12-23, 2020**. It will be divided in two components:

- The computer-based exam will be available **from 8:00 am December 12 until 10:00 pm December 23**. **No Late Submissions allowed!**
- The CU Learn part is a 60-minute timed quiz

To pass this course, you must write both the Midterm and final exams

Detailed Course Schedule

Lecture Date	Topic
Lecture 1 Sep 10	Welcome – Course administration – Introduction to Java. (Chapter 1)
Lecture 2 Sep 17	The OO Paradigm. UML. Basic Objects (Chapter 2)
Lecture 3 Sep 24	Implementing Classes – Basic Methods + Classes (Chapter 3)
Lecture 4 Oct 1	Data Types (Chapter 4), and Date, the lost class
Lecture 5 Oct 8	Branches (Chapter 5)
Lecture 6 Oct 15	Loops (Chapter 6)
Oct 22	Take Home Midterm exam
Oct 29	Reading Week – No Lecture
Lecture 7 Nov 5	Arrays (Chapter 7), Methods Continued (Chapter 8)
Lecture 8 Nov 12	Classes Continued (Chapter 9), Inheritance (Chapter 10)
Lecture 9 Nov 19	INPUT/OUTPUT (Chapter 11) and Exception Handling (Chapter 12)
Lecture 10 Nov 26	Object-Oriented Design
Lecture 11 Dec 3	Graphical User Interfaces (Chapter 13) GUIs in Java
Lecture 12 Dec 10	Advanced User Interfaces (Chapter 14) & Final Exam Review
Dec 12-23	Take Home Final Exam

ADDITIONAL INFORMATION**Course Sharing Websites**

Materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

Required calculator in BUSI course examinations

If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII

Group work

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52
F = Below 50			

Grades entered by Registrar:

WDN = Withdrawn from the course

DEF = Deferred

Academic Regulations

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After

requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

Academic Integrity

Violations of academic integrity are a serious academic offence. Violations of academic integrity – presenting another's ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the degree and will not be tolerated. Penalties may include; a grade of Failure on the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from full-time studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: <https://carleton.ca/registrar/academic-integrity/>.

Sprott Student Services

The Sprott student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you are having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in* any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring, concentrations, and will ensure that you get connected with the resources you need to succeed! <http://sprott.carleton.ca/students/undergraduate/learning-support/>

** Note that the office is physically closed. However, e-drop in is available between 8:30-4:30 until social distancing requirements are updated by the Province.*

Centre for Student Academic Support

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: carleton.ca/csas.

Important Information:

- Students must always retain a hard copy of all work that is submitted.
 - All final grades are subject to the Dean's approval.
 - For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, in order to respond to your inquiries, please send all email from your Carleton CMail account. If you do not have or have yet to activate this account, you may wish to do so by visiting <https://carleton.ca/its/get-started/new-students-2/>
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