



George Brown College

COURSE NAME: CAPSTONE PROJECT I

COURSE CODE: COMP3059

CREDIT HOURS: 4

**COURSE
CONTACT
HOURS:** 56

PREREQUISITES: COMP 2120

COREQUISITES:

**EFFECTIVE
DATE:** September 2016

PLAR ELIGIBLE: YES () NO (X)

PROFESSOR: Anjana Shah

PHONE: 416-415-5000 ext 3762 **EMAIL:** ashah@georgebrown.ca **OFFICE:** C430

EQUITY STATEMENT

George Brown College values the talents and contributions of its students, staff and community partners and seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Language or activities which are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and cooperation of all students and staff are required to maintain this environment. Information and assistance are available through your Chair, Student Affairs, the Student Association or the Human Rights Advisor. George Brown College is dedicated to reducing barriers and providing equal access to education for students with disabilities. If you require academic accommodations, please contact the Accessible Learning Services office on your campus.

STUDENT RESPONSIBILITIES

Students should be familiar with the college's policies regarding the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges, and academic dishonesty. College policies can be viewed on the college's website at: <http://www.georgebrown.ca/policies>. Full-time students should obtain a copy of the Student Handbook and refer to it for additional information. Students are required to apply themselves diligently to the course of study, and to prepare class and homework assignments as given. Past student performance shows a strong relationship between regular attendance and success.

COURSE DESCRIPTION

Students engaged in the Industry Capstone Courses (1 and 2) will be involved in authentic projects over their final two semesters. Projects will focus on emergent technologies opportunities, issues and challenges that are faced by and presented from industry partners, and are explored by student teams with the aid of qualitative and quantitative research lenses. Students will draw data and necessary information from various sources and apply project management principles to ensure effective and timely completion of the project. The objective for students over two semesters is to follow a development life-cycle which should lead to the development of a prototype or proof-of-concept solution upon completion of their Capstone program.

Throughout two semesters, students will apply concepts of human relations, team building, conflict resolution, self-management, and presentation skill development. Reflection will be a cornerstone of these courses, where students will be expected to regularly journal their progress and perspective throughout the semester.

Capstone Project 1 (Semester 5)

In the Capstone Project 1 Course, students will be introduced to concepts of problem identification, research and analysis, and project management. Using the skills developed throughout the program, students will apply their technical knowledge to explore solutions to problems identified, and make recommendations to industry. Final assessment in this semester will include; student's project summary, research assignment/literature review, project plan, and analysis/design documentation. Presentations and regular status meetings with faculty throughout the semester will support students and ensure progress throughout.

ESSENTIAL EMPLOYABILITY SKILLS

As mandated by the Ministry of Training, Colleges and Universities essential employability skills (EES) will be addressed throughout all programs of study. Students will have the opportunity to **learn (L)** specific skills, to **practice (P)** these skills, and/or **be evaluated (E)** on the EES outcomes in a variety of courses. The EES include communication, numeracy, critical thinking & problem solving, information management, interpersonal and personal skills. The faculty for this course has indicated which of the EES are either Learned (**L**), Practiced (**P**) or Evaluated (**E**) in this course:

Skill	L	P	E	Skill	L	P	E
1. communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience	x	x	x	7. locate, select, organize and document information using appropriate technology and information sources	x	x	x
2. respond to written, spoken or visual messages in a manner that ensures effective communication	x	x	x	8. show respect for the diverse opinions, values, belief systems, and contributions of others	x	x	x
3. execute mathematical operations accurately		x	x	9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals	x	x	x
4. apply a systematic approach to solve problems	x	x	X	10. manage the use of time and other resources to complete projects	x	x	x
5. use a variety of thinking skills to anticipate and solve problems	x	x	X	11. take responsibility for one's own actions, decisions and consequences	x	x	x
6. analyze, evaluate, and apply relevant information from a variety of sources	x	x	x				

COURSE OUTCOMES AND OBJECTIVES

Upon successful completion of this course the students will have reliably demonstrated the ability to:

1. Utilize primary and secondary research techniques for the purpose of identifying one key ICT opportunity and/or barrier for a specific industry/sector of your choosing.
2. Synthesize an ICT solution, as well as corresponding and supporting documentation based on the opportunity and/or barrier identified.
3. Utilize project management practices and techniques throughout an IT project life-cycle
4. Apply concepts of human relations and organizational behaviors to establish and maintain effective working teams.

5. Demonstrate leadership skills while working with diverse teams.
6. Apply customer service principles and practices when interacting with industry and/or stakeholders.
7. Communicate effectively and persuasively through oral, graphic and/or print media.
8. Develop and activate life-long learning and professional development to maintain technological currency.

DELIVERY METHODS

Lectures, Liaise with Students and Industry Partners, Presentations, Seminars

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS

There is no required textbook. Class will be given handouts and supplemental material by professor.

TESTING POLICY

1. A score of zero will be recorded for a missed team project and/or seminar presentation (individual team members who are absent from the team presentation will be penalized), missed project status report, and/or missed project final report unless the student presents the professor with official written substantiation of the absence the first day she or he returns to class.
2. Students are responsible for reading the appropriate material before classes so that they may benefit from their practical activities and examples

ASSIGNMENT POLICY

1. Students are responsible for keeping a back-up copy of each assignment, report, presentation, reference sources and e-mail submitted.
2. All assignments (including reports, presentations, reference sources and e-mails) submitted should adhere to the documentation standards, submittal method, and deadlines distributed by the professor.
3. Students should check Blackboard/WebCT and the course handouts for the instructions for submission policy.

EVALUATION SYSTEM

Assessment Tool:	Description:	Outcome(s) assessed:	EES assessed:	Date / Week:	% of Final Grade:
Learning Plan, Course Reflection	These activities represent the summative, reflective evaluation activities which learners use to evaluate their personal growth throughout the course.	all	All	2, 14	5%
Business Requirements	Learners will develop a requirements package that will capture the business needs, and user centered requirements. These requirements will form the basis for system analysis and design specifications.	1, 2, 3, 5, 6, 7	All	5	20%
Project Plan and Team Charter	Learners will develop and present a plan to the industry partner which will include; summary,	2,3,4,5,7	All	6	10%

	scope, duration, constraints, communication, timelines, and resource requirements.				
System Analysis and Design	Based on Analysis and Design skills developed throughout their program, learners will construct an analysis/design portfolio, which may include; conceptual, logical, and physical data models (to be constructed under advisement of Faculty, and will be based on the scope of each project).	1,2,5,7		9	20%
Wireframes/ Prototype	Using a mock-up tool, teams will validate requirements and interpret solution requirements			12	20%
Presentations	Learners will summarize your project plan, and identify the value of your team's members in a 15 minutes presentation	3,5,7	All	7, 14	25%
				TOTAL:	100%

GRADING SYSTEM

The passing grade for this course is: 50%

A+	90-100	4.0	B+	77-79	3.3	C+	67-69	2.3	D+	57-59	1.3	< 50	F	0.0
A	86-89	4.0	B	73-76	3.0	C	63-66	2.0	D	50-56	1.0			
A-	80-85	3.7	B-	70-72	2.7	C-	60-62	1.7						

Excerpt from the College Policy on Academic Dishonesty:

The **minimal** consequence for submitting a plagiarized, purchased, contracted, or in any manner inappropriately negotiated or falsified assignment, test, essay, project, or any evaluated material will be a grade of zero on that material. To view George Brown College policies please go to www.georgebrown.ca/policies.

TOPICAL OUTLINE

Week	Topic / Task	Outcome(s)	Content / Activities	Resources
1	Course Introduction Software Development Process	1, 2	<ul style="list-style-type: none"> Summary of Course Expectations/Roles & Responsibilities The need for a "whole-brained" IT specialist Software Development Life Cycle Software Development Activities 	Handouts
2	Project Analysis and Assessment Introduction to Projects	1, 2, 3, 4	<ul style="list-style-type: none"> Summary of Project Research Define the Project <ul style="list-style-type: none"> Determine the real need 	Handouts

			<ul style="list-style-type: none"> ◦ Define the end product/service ◦ Determine project priorities ◦ Develop a project mission statement • Summarize Business Requirements • Analyze Stakeholders • Intro to Projects • Learning Plan DUE 	
3	Overview of Project Management	3	<ul style="list-style-type: none"> • Expectations/Roles & Responsibilities • Project Preparation • Project Management Primer (Review of Best Practice, Deliverables, etc.) 	Team Charter document
4	Project Planning	2,3,4	<ul style="list-style-type: none"> • Generate Activities • Develop Estimates and Timelines • Define Activities Dependencies, Schedule and Critical path • Establish project infrastructure • Develop Risk Management Plan • Prepare the Project plan 	Project Plan and Scheduling
5	Project Executing and Controlling	3,4	<ul style="list-style-type: none"> • Managing Requirements • Track Change Requests/Revisions • Communications with Parties • Meetings • Deliverable and Milestones • Business Requirements DUE 	
6	Software Engineering		<ul style="list-style-type: none"> • Requirements Analysis • Software Design • Project Plan DUE 	
7	Group Presentations	2,3,4,6,7	<ul style="list-style-type: none"> • Business Requirements and Project Plan Presentations 	
8				
9	Creating Wireframes/ Prototypes		<ul style="list-style-type: none"> • Importance of wireframes • Wireframes for different development projects • Resources/tools • <i>Introduction to Balsamiq</i> • Analysis and Design Assignment DUE 	Web resources Balsamiq WF Tool
10	Presentation Skills – Designing Effective Presentations	2,3,4,7,8	<ul style="list-style-type: none"> • Consider the factors that contribute to audience attentiveness and presentation success • Learn to apply effective strategies in the development of presentation materials 	Handouts

11	Presentation Skills – Delivering Effective Presentations	2,3,4, 7	<ul style="list-style-type: none"> Understand the formula for presentation perfection! Visual Image Vocal Image Elements for Speaking and Presenting with Confidence Overcoming Anxiety 	Handouts
12	ICT Competencies – Interpersonal Skills Assessment	4,5,6	<ul style="list-style-type: none"> Concepts of human relations in the IT environment DiSC Analysis Wireframes/Prototype DUE 	DiSC Assessment Tool
13	ICT Competencies – Interaction Skills	4,5,6	<ul style="list-style-type: none"> Teamwork Dealing with Difficult People and Conflict Resolution Customer/Client Service 	
14	Group Presentations	2,3,4,6,7	<ul style="list-style-type: none"> Revisit Project Plan, Analysis and Design Wireframes/Prototype Course Reflection DUE 	
15	Preparation For Capstone 2	all	Team reviews and plans for Capstone Project 2.	
Please note: this schedule may change as resources and circumstances require. For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: http://www.georgebrown.ca/Admin/Registr/PSCal.aspx				