



## COURSE OUTLINE

### FACULTY OF TECHNOLOGY

### INFORMATION TECHNOLOGY

**COURSE NAME:** Wireless Technology Fundamentals

**COURSE CODE:** COMP 2106

**CREDIT HOURS:** 42

**PREREQUISITES:** COMP 1163 – Intro. to Network Operations

**COREQUISITES:** None

**EFFECTIVE DATE:** May 02, 2005

**PROFESSOR:** Jorge Olenewa

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**PLAR ELIGIBLE:** YES ( ) NO ( )

**NOTE TO STUDENTS:** Academic Departments at George Brown College will NOT retain historical copies of Course Outlines. We urge you to retain this Course Outline for your future reference.

FOR OFFICE USE ONLY		
<b>ORIGINATOR:</b> _____	SIGNATURE	DATE
<b>CHAIR:</b> _____	SIGNATURE	DATE
<b>DATE OF REVISION:</b> _____		

**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.

**STUDENT RESPONSIBILITIES:** Students should obtain a copy of the *Student Handbook* and refer to it for additional information regarding the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges, and academic dishonesty. Students are required to apply themselves diligently to the course of study, and to prepare class and homework assignments as given. Regular attendance, though not a requirement, is strongly advised. Past student performance shows a strong relationship between regular attendance and success.

## COURSE DESCRIPTION:

This course is an introduction to the fundamentals of Wireless Communications technology. It covers the basic knowledge and skills required for the student to progress from traditional networking technologies into the more sophisticated world of data communications without wires. The theoretical part of the course goes beyond local and personal area networks and introduces the students to point-to-point and multipoint fixed and mobile networking as well as an overview of digital cellular telephony and satellite communications.

The course also includes discussions of mobile applications and protocols. Hands-on lab projects and research assignments help students develop a familiarity with the various technologies and how these technologies can be applied in real business situations.

## GENERIC SKILLS:

The college is committed ensuring that students have the full range of knowledge and skills required for full participation in all aspects of their lives including skills to enable them to be life long learners. To ensure graduates have this preparation, such generic skills as literacy and numeracy, computer, interpersonal, communications, and critical thinking skills will be embedded in all courses. The table below indicates which generic skills will be taught, practiced, and/or evaluated in this course.

Skill	T	P	E	Skill	T	P	E
Communicate clearly- spoken, written, visual presentation		✓	✓	Evaluate information based on quantitative and/or qualitative data		✓	
Reframe ideas and concepts to demonstrate understanding using narrative, numerical, symbolical forms		✓		Create innovative strategies and/or products that meet identified needs			
Apply mathematical techniques		✓	✓	Manage time and other resources to attain goals		✓	
Use the computer to perform tasks		✓	✓	Take responsibility for own actions		✓	
Interact and work in teams to achieve goals		✓		Adapt to new situations and demands		✓	✓
Apply critical thinking in problem solving and making decisions		✓	✓	Assess own skills, knowledge and experience		✓	
Collect, analyze and organize information		✓	✓				

## **COURSE OUTCOMES:**

1. Review basic NOC design principles
2. Examine the concepts of Mean Time to Repair and Mean Time to Failure with a view toward designing a high availability network.
3. Calculate the cost/benefit of various high availability network design options.
4. Review the basic concepts of Disaster Recovery Planning.
5. Examine staffing models for a NOC with a view toward budget and functionality.
6. Examine automated Network Management Technology and compare the costs of installing it as opposed to a staffed NOC.
7. Compare and analyze existing NOC design in the field for cost reliability and elegance
8. Implement NOC design to fit the organizational parameters

## **DELIVERY METHODS:**

The instructional methods of this course are based on the overview lessons and hands-on Labs included in the Unicenter UN-210 Course Manual.

## **LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:**

**A Unicenter UN-210 Courseware book will be provided to the students on a loaner basis, for the duration of the course. Students must return this book undamaged and unmarked by the end of the course/semester.**

## **TESTING POLICY:**

Students are required to complete lab exercises and quizzes, as well as take-home assignments.

Supervised make-up testing or late submission of assignments is at the discretion of the professor.

See the Missed Assessments and Late Assignments Policy as well as George Brown College policies and procedures regarding withdrawals, exemptions, attendance, class assignments, academic dishonesty and supplemental examinations.

Supplemental tasks/examinations are not a right but a privilege granted by a Promotion Committee on an individual basis to students who have failed a course after attending the entire course and attempting the final examination. Individual professors do not make decisions regarding the policies of the Promotion Committee.

## **ASSIGNMENT POLICY:**

All assignments must be submitted before the due date in class. For every day past the due date there will be 10% penalty unless the student has notified the professor ahead of due date that he/she has a valid reason for late submission.

## EVALUATION SYSTEM:

The final grade is based on student performance in the following areas:

1. Lab/Class participation & Exercises 50%
2. Attendance 50%

## GRADING SYSTEM

GEORGE BROWN COLLEGE				
A+/A 86-100	B+ 77-79	C+ 67-69	D+ 57-59	Below 50 F
A- 80-85	B 73-76	C 63-66	D 50-56	
	B- 70-72	C- 60-62		

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.

## TOPICAL OUTLINE:

<b>Week</b>	<b>Outcome</b>	<b>Content</b>	<b>Chapter/Reference</b>
Wk. 1		Unicenter NSM Implementation and Architecture	Chapter 1
Wk. 2		Installation Guidelines and Procedures	Chapter 2
Wk. 3		WorldView Discovery and Visualization	Chapter 3
Wk. 4		Agent Technologies	Chapter 4, Lessons 1, 2, and 3
Wk. 5		Unicenter Agent Technologies: Managing Network Objects	Chapter 4, Lessons 4, 5, 6
Wk. 6		WorldView Tools	Chapter 5
Wk. 7		Midterm Examination	1 through 5
Wk. 8		Intersession Week	
Wk. 8		Guest Speaker(s)/Tour Session	
Wk. 9		Enterprise Management: Managing Events	Chapter 6
Wk. 11		Enterprise Management: Managing Events	Chapter 6
Wk. 12		Enterprise Management: Managing Workload	Chapter 6
Wk. 13		Unicenter Information Resources	Chapter 7
Wk. 14		Review	1 through 7
Wk. 15		Final Examination	

**Note:**