

Computer Science Technology

420-623-AB

COURSE OUTLINE

## GENERAL INFORMATION

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| Program | Computer Science Technology (Programmer/Analyst) |
| Course Title | **Windows Networking** |
| Course Number | **420-623-AB** |
| Timetable and Classroom | Section 1: Thursday, Friday, 13:00-14:30, classroom TBD  Section 2: Thursday, Friday, 14:30-16:00, classroom TBD |
| Pondération | 1 hours lecture + 2 hours laboratory + 3 hours homework |
| Number of Credits | 2.00 |
| Competencies and Codes | Exploit the possibilities of a networked computing environment. 0174.1, 0174.2 |
| Prerequisites | Operating Systems (420-326-AB) |
| Semester | **Winter 2017** |
| Teacher |  |
| Name | Jim Matthews |
| Office | P-237 |
| Phone | 514-457-6610 local 5198 |
| Internet | [jim.matthews@johnabbott.qc.ca](mailto:jim.matthews@johnabbott.qc.ca) |
| Office Hours | Posted on office door. Appointments can be made outside of the posted hours when the need arises. |

## INTRODUCTION

This course provides students with the knowledge and skills to install, configure, and manage a Microsoft Windows network.

## COURSE OBJECTIVES

Competency 0174. Exploit the possibilities of a networked computing environment.

Achievement Context

* In various network environments.
* Using a workstation and the appropriate software.
* Using appropriate hardware, software and utilities.
* Based on company standards and requirements.
* Based on information technology and telecommunications standards.
* Using appropriate technical reference manuals.

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| **Elements of competency** | | **Performance criteria** |
| 0174.11 | Use a network operating system. | 1.1 Examination of the features and functions of the network hardware.  1.2 Examination of the features and functions of the network software.  1.3 Examination of the characteristics of network data organization.  1.4 Correct creation of network accounts and user groups.  1.5 Installation of security and protection measures for network accounts and user groups.  1.6 Assignment of access rights and restrictions to network resources.  1.7 Correct automation of the tasks associated with the use of an application. |
| 0174.2 | Connect a workstation to the network. | 2.1 Proper installation of hardware on the workstation.  2.2 Appropriate definition of configuration parameters for the workstation.  2.3 Proper installation of network access software.  2.4 Testing of the workstation in the network environment. |

## EVALUATION PLAN

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| --- | --- | --- |
| Objective: | Use a network operating system. 0174.1 | Connect a workstation to the network. 0174.2 |
| Lab Exercises and Assignments (5) 35% (7% each) | X | X |
| **Summative:** | | |
| Test 1 (Week 7) 25% | X | X |
| Test 2 (Week 14) 25% | X |  |
| Project (Week 15) 15% | X | X |

(Note: Weeks indicated for tests are tentative.)

## COURSE CONTENT

**Introduction to Windows Networking**

**Installing Windows Servers**

**Connecting Clients to the Network**

**PowerShell**

**File Systems**

NTFS, and Share Permissions

**Active Directory (AD)**

Components of AD

Users and Computer Accounts

Groups

AD Permissions

Install, Configure and Manage AD

**Group Policy**

Software Deployment

**Auditing and Security: Firewalls, logging**

**Application Services: IIS Web, FTP**

**Network Infrastructure**

Install, Configure and Manage TCP/IP, IP Networking, Subnetting and Routing.

**Networking Services**

Install, Configure and Manage DNS

## TENTATIVE SCHEDULE

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| --- | --- |
| Week 1 | Introduction to Windows Networking. Installing Windows Servers. Connecting Clients to the Network. PowerShell. |
| Week 2 | Introduction to Windows Networking. Installing Windows Servers. Connecting Clients to the Network. PowerShell. |
| Week 3 | File Systems: NTFS, and Share Permissions |
| Week 4 | File Systems: NTFS, and Share Permissions  Networking Services: Install, Configure and Manage DNS |
| Week 5 | Active Directory (AD) |
| Week 6 | Active Directory (AD) |
| Week 7 | Active Directory (AD). **Test 1.** |
| Week 8 | Group Policy: Software Deployment. |
| Week 9 | Group Policy: Software Deployment. Network Infrastructure  Install, Configure and Manage TCP/IP, IP Networking, Subnetting and Routing. |
| Week 10 | Network Infrastructure  Install, Configure and Manage TCP/IP, IP Networking, Subnetting and Routing. |
| Week 11 | Auditing and Security: Firewalls, logging.  Application Services: IIS Web, FTP |
| Week 12 | Application Services: IIS Web, FTP |
| Week 13 | Project |
| Week 14 | **Test 2**. Project |
| Week 15 | Project |

## REQUIRED TEXTS

None

## COURSE COSTS (Approximate)

None

## TEACHING METHODS

This course consists of 45 hours of scheduled lectures and lab work. In addition, each student will be required to do 45 hours of personal study that includes research, personally booked computer time and work at home.

## DEPARTMENTAL ATTENDANCE POLICY

Attendance is compulsory. Unexcused absences for more than 20% of the course's total hours will result in the student’s final grade being the mark accumulated up to that point.

## DEPARTMENTAL LATE POLICY

All assignments and projects are expected to be submitted by the required due date. A late penalty of up to 10% per day might apply to assignments submitted late up to a maximum number of allowed late days. The exact percentage and the maximum will be indicated on the instructions specific to that assignment. Any work submitted after the maximum number of allowed late days has been reached will not be graded.

## COLLEGE POLICIES

Policy No. 7 – IPESA, Institutional Policy on the Evaluation of Student Achievement:

<http://johnabbott.qc.ca/ipesa>

□ **Changes to Evaluation Plan in Course Outline** (Article 4.3)

Changes to the evaluation plan, during the semester, requires unanimous consent.

□ **Mid-Semester Assessment MSA** (Article 3.3)

Students will receive an MSA in accordance with College procedures.

□ **Religious Holidays** (Article 3.2)

Students who wish to observe religious holidays must inform their teacher in writing within the first two weeks of the semester of their intent.

**Student Rights and Responsibilities**

□ (Article 3.2, item 19.)

It is the responsibility of students to keep all assessed material returned to them in the event of a grade review. (The deadline for a Grade Review is 4 weeks after the start of the next regular semester.)

□ (Article 3.3, item 7.)

Students have the right to receive the results of evaluation, for regular day division courses, within two weeks. For evaluations at the end of the semester/course, the results must be given to the student by the grade submission deadline. *Where applicable*: for intensive courses (i.e.: intersession, abridged courses), timely feedback must be adjusted accordingly.

□ **Cheating and Plagiarism** (Article 8.1 & 8.2)

Cheating and plagiarism are serious infractions against academic integrity which is highly valued at the College; they are unacceptable at John Abbott College. Students are expected to conduct themselves accordingly and must be responsible for all of their actions.

**Cheating**

Cheating means any dishonest or deceptive practice relative to examinations, tests, quizzes, lab assignments, research papers or other forms of evaluation tasks. Cheating includes, but is not restricted to, making use of or being in possession of, unauthorized material or devices and/or obtaining or providing unauthorized assistance in writing examinations, papers or any other evaluation task and submitting the same work in more than one course without the teacher’s permission. It is incumbent upon the Department through the teacher to ensure students are forewarned about unauthorized material, devices or practices that are not permitted.

**Plagiarism**

Plagiarism is a form of cheating. It includes the intentional copying or paraphrasing (expressing the ideas of someone else in one’s own words), of another person's work or the use of another person’s work or ideas without acknowledgement of its source. Plagiarism can be from any source including books, magazines, electronic or photographic media or another student's paper or work.