



Centre for Continuing Education

## Internet Programming and Development AEC LEA.BN

### 420-PA3-AB Course Outline

#### General Information

|                                  |  |
|----------------------------------|--|
| <i>Course Title</i>              | Introduction to Computers, the Internet and the Web (CIW)  |
| <i>Course Number</i>             | 420-PA3-AB   |
| <i>Course Ponderation</i>        | 1-2-3  |
| <i>Total Hours</i>               | 45   |
| <i>Number of Credits (Units)</i> | 2.00   |
| <i>Program Competency(ies)</i>   | DC50– Describe and analyze the internal architecture of a computer in a Microsoft environment and in the context of internet and web structures. |
| <i>Prerequisite course(s)</i>    | none   |
| <i>Timetable and Location</i>    | 8:30 a.m. to 1:30 a.m. in BH-210   |
| <i>Start Date</i>                | September 6 <sup>th</sup> , 2017   |
| <i>End Date</i>                  | September 18 <sup>th</sup> , 2017  |
| <i>Semester</i>                  | Fall 2017  |
| <i>Instructor</i>                | Dr. Khattar Daou, M.S., Ph.D. Technical Sciences<br>Microsoft Certified Trainer (MCT), Microsoft Office Specialist (MOS)                         |
| <i>Contact Information</i>       | The instructor can be reached by MIO   |

#### Course Description

This course is an introduction to the computer, the Internet, and the World Wide Web. This course is organized broadly into three sections. The **first section** introduces students to the computer concepts and explains the major parts of a computer and how do computers work. The **second section** provides basic information and guidelines for using Microsoft Windows operating systems. The **third section** covers the Internet and the World Wide Web issues: get connected to the Net, using Electronic mail, navigating the Internet and the Web, searching for and finding useful information, and visiting web sites.

## Competencies and Performance Criteria

Upon successful completion of this course, a student will be able to:

- Understand the different components of a computer and which features should be considered when purchasing or upgrading a personal computer.
- Use the Windows environment.
- Learn how to navigate and manage the folder structure of a personal computer, how to open and exit applications, and how to create, copy, and delete files and folders.
- Understand the many aspects of using of the Internet.
- Learn how to surf the Internet, learn effective search techniques, and how to send and receive Email messages.

| OBJECTIVE  | STANDARD  |
|--|---|
| <b>Statement of the Competency</b><br>Describe and analyze the internal architecture of a computer in a Microsoft environment and in the context of internet and web structures. | <b>Achievement Context</b> <ul style="list-style-type: none"> <li>• In a classroom and computer laboratory environments – using: <ul style="list-style-type: none"> <li>○ Windows Operating systems</li> <li>○ Software application such as Word processing, spreadsheet, database, project planning, and presentation software</li> </ul> </li> <li>• In written assignment(s) and/or in-class exam(s)</li> <li>• In simulation exercises</li> <li>• Working alone and in groups <ul style="list-style-type: none"> <li>○ Based on industry standards</li> </ul> </li> </ul> |
| Elements of competency   | Performance criteria  |
| 1. Describe and analyze the internal architecture of a computer.   | 1.1 Identify and locate elements of the motherboard.<br>1.2 Identify the features and functions of processors, memories, buses and clocks.<br>1.3 Identify the features and functions of the different communication ports.<br>1.4 Identify the relationships between the different components.   |
| 2. Carry out computer processing tasks pertaining to the internal data of the computer   | 2.1 Representation of numbers in different base systems<br>2.2 Conversion of numbers from one base to another<br>2.3 Correct execution of arithmetic operations in different bases<br>2.4 Proper representation of data in computer memory<br>2.5 Accurate interpretation of the limits to data representation in computer memory.  |
| 3. Specify the information needed  | 3.1 Exact specification of the research need<br>3.2 Definition of the criteria for correctly selecting the research sources<br>3.3 Demonstration of initiative.   |
| 4. Consult and extract the necessary information   | 4.1 Pertinence of the information consulted<br>4.2 Proper interpretation of French and English documentation.<br>4.3 Pertinence of the information in relation to the initial requirement.<br>4.4 Demonstration of curiosity.   |

| Elements of competency                          | Performance criteria  |
|---|---|
| 5. Explain the Internet and the Web technology. | 5.1 Explain how the Internet and Web are used<br>5.2 Identify the different types of Web sites, Web pages, Web portals, Web servers, and Web browsers.<br>5.3 Explain how to perform the search process and use various search tools to do basic and advanced Web searches. |
| 6. Explain Internet Technologies and Security   | 6.1 Explain the networking technologies and communication services that make communicating over the Internet and accessing the Web possible.<br>6.2 Explain the online security risks and safeguards.   |

## COURSE CONTENT

This course introduces the student to computer technology. Students learn to identify the components of a computer, how numbers and text are stored, how to research information, and the work functions of computer science professionals. The course topics include hardware characteristics, the Windows operating system, and numbering systems, the fundamentals of the Internet including web page development with HTML, word processing, spreadsheets and the tasks and tools of programmer/analysts.

## Tentative Schedule

| Class# | Topics                                    |
|--------|---|
| 1      | <i>Technology &amp; our Society</i>       |
| 2      | <i>Understanding Computer Parts</i>       |
| 3      | <i>Binary Number System</i>               |
| 4      | <i>Application Software</i>               |
| 5      | <i>Internet and How it Works</i>          |
| 6      | <i>Networking Fundamentals</i>            |
| 7      | <i>Information Systems and People</i>     |
| 8      | <i>e-Business</i>                         |
| 9      | <i>Object-Oriented System Development</i> |

## Textbook and References:

Texts and Other Materials: Course syllabus; text and workbook, reference handouts; assignment handouts; printed course manual; access to the Internet and World Wide Web.

| Title  | Author | Publisher |
|--|--------|-----------|
| 1. N/A   |        |           |
| <b>Optional Reading:</b>   |        |           |
| 1. <i>Enhanced Discovering Computers</i> ©2017, 1st Edition / Misty E. Vermaat, Susan L. Sebok / ISBN: 978-1305657458 / © 2017 Cengage Learning      |        |           |
| 2. <i>Discovering the Internet: Complete, 5th Edition</i> / Jennifer Campbell / ISBN: 978-1285845401 / © 2015 Cengage Learning                       |        |           |
| 3. <i>Technology In Action Complete 14th Edition</i> / Alan Evans, Kendall Martin, Mary Anne Poatsy / ISBN: 978-0134608228 / ©2018 Pearson Education |        |           |
| 4. <i>Fundamentals of Information Systems, 9th Edition</i> / Ralph M. Stair / ISBN: 978-1337097536 / © 2018 Cengage Learning                         |        |           |

## Evaluation Plan

| Evaluation    | Value | Competency Element |    |    |    |    |    |
|---------------|-------|--------------------|----|----|----|----|----|
|               |       | 01                 | 02 | 03 | 04 | 05 | 06 |
| Lab Exercises | 20%   | x                  | x  | x  | x  | x  | x  |
| Assignment 1  | 20%   | x                  | x  |    |    |    |    |
| Final Exam    | 30%   |                    |    | x  | x  | x  | x  |
| Project       | 30%   | x                  | x  | x  | x  | x  | x  |

(Note: Classes indicated are tentative)

## Course Costs

None

## Teaching Methods

The course is a combination of theory and labs. Students will:

- Work alone
- Work in groups

It requires your individual presence and your active, consistent and sustained participation in your individual work. Your individual responsibilities are to complete the work assigned and ready to work at the start of each class. **Léa**, the course management system within Omnivox, will be used in this course.

Learning Activities:

- **Lectures/Demonstrations:** Discussion is encouraged as is student-procured, outside material relevant

to topics being covered.

- **Hands-On Exercises/Assignments/Project:** Case problems, concepts reviews, and skills practice, will help support and reinforce material in the course. These will be structured to be as realistic as possible given the time available.
- **Tests**
- **Team Term Project**
- **Classroom Activity:** Participation and Discussion

## **Departmental Attendance Policy:**

### **Attendance**

Attendance and participation in class, lab, and fieldwork is mandatory. Absences must be reported to the instructors or program co-ordinator before scheduled times. Students must be excused if they have a valid medical or other special reason for missing a class. Teachers must require proof. (IPESA Art.7.1)

Without a valid reason or prior approval, students cannot miss more than 20% of the total hours of a course, i.e. 9 hours for a 45-hour course, 12 hours for a 60-hour course etc.

Teachers are not required to provide alternative evaluation tasks for these students. Since the CEGEP system is now competency-based, marks cannot be assigned for attendance or deducted for lack of attendance. Marks are to be used only to designate the extent to which the objectives of the course have been met by the student.

According to article 7.1 IPESA, special arrangements may be made in cases where chronic illness prevents the student from attending on a regular basis. Proof may be required. Special arrangements should also be made for religious holidays. Students must inform teacher at the beginning of the course in writing.

Attendance and participation are vital elements of student development. All discussions, notes, audio-visual presentations, in-class assignments and handouts are subject to examination questions. Students are responsible for the material covered in classes missed.

### **Classroom Policies**

Students who miss a class will receive a mark of zero on any in-class assignments or quizzes given in the period without the opportunity for any make-up work. Exceptions to this policy apply only in the event of absence due to medical or special reasons or religious holidays.

All electronic communication and music devices (e.g., iPad, tablets, cell phones, etc.) must be turned off while in class, unless authorized otherwise by the teacher.

Class time is limited, and each student at John Abbott is entitled to the very best educational experience in every class. It is important that the atmosphere of each classroom or lab be as conducive to the learning process as possible. The following guidelines have been established so as to create and maintain such an atmosphere.

Inappropriate behaviour in the classroom includes the following:

- Speaking while another person (teacher or student) has the floor (that is, he/she is addressing the class as a whole).
- Using cellular phones or other electronic devices not related to the course.

- Threatening, harassing, or offensive behaviour towards any person in the class, other students, teachers or College staff.
- Use of derogatory language or referring directly or indirectly to someone else in the class in a rude manner or using offensive language.
- Misuse or abuse of the College's computers, telephone systems or other equipment.
- Speaking, reading or writing about subjects which are not part of the current class discussion.
- Arriving late, leaving early, and leaving the room for any non-emergency without having teacher approval and the courtesy to make this known.
- Eating or drinking in the computer laboratories is forbidden.

## **College Policies**

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

<http://www.johnabbott.qc.ca/wp-content/uploads/2014/12/2011-IPESA-FINAL-website-JAN-2013-rev-Dec-102014.pdf>

#### ☐ **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.