**SIO-1101: Information Systems and Technologies**  
**SECTION Z1**  
**Winter 2011**

**Instructor:** Benoit Raymond (professor)

**Course timetable:**
- **Classroom:**
  - Thursdays 15h30 to 18h20 Room 2327 PAP from Jan. 10, 2011 to April 22, 2011

**Course website:** [http://www.webct.ulaval.ca](http://www.webct.ulaval.ca)

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### **General Information**

<table>
<thead>
<tr>
<th>Benoit Raymond</th>
<th>Pavilion Palasis-Prince, Office 2539</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professor</strong></td>
<td><a href="mailto:Benoit.Raymond@fsa.ulaval.ca">Benoit.Raymond@fsa.ulaval.ca</a></td>
</tr>
<tr>
<td></td>
<td>418-656-2131 ext. 6087</td>
</tr>
<tr>
<td></td>
<td>418-656-2624</td>
</tr>
</tbody>
</table>

**Office hours (an appointment is recommended):**
- **Monday** 1:00 to 3:30pm Room 2539 PAP from Jan. 10, 2011 to April 18, 2011
- **Thursday** 1:00 to 3:30pm Room 2539 PAP from Jan. 10, 2011 to April 14, 2011

Other availability by appointment.

### **Technical support:**

**Comptoir d’aide APTI (CAA)**
- Pavilion Palasis-Prince, Room 2215  
  caa@fsa.ulaval.ca  
  418-656-2131 ext. 6258  

#### **Schedule:**

**Schedule: fall and winter**
- **Monday** 08:15 to 21:45
- **Tuesday** 08:15 to 21:45
- **Wednesday** 08:15 to 21:45
- **Thursday** 08:15 to 21:45
- **Friday** 08:15 to 21:45
- **Saturday** 09:00 to 16:00
- **Sunday** 09:00 to 16:00

**Schedule: summer**
- **Monday** 08:30 to 21:00
- **Tuesday** 08:30 to 21:00
- **Wednesday** 08:30 to 21:00
- **Thursday** 08:30 to 21:00
- **Friday** 08:30 to 21:00
- **Saturday** Closed
- **Sunday** Closed
*Course Description*

*Introduction*

Managers and business analysts in organizations are expected to know how information systems (IS) can be used to make businesses more competitive, effective and efficient. This course provides an introduction to information systems for business and management. It is designed to familiarize students with organizational and managerial foundations of systems, the technical foundation for understanding information systems, the role of information systems in enhancing business processes and management decision making across the organization, and the process of building and managing systems in organizations. The course focuses on topics such as the management of the digital firm, Internet and Internet technology, electronic business and commerce, information technology (IT) infrastructure, wireless technology, ethical and security issues related to information systems, and enterprise applications. Learning activities include individual work and participation, teamwork and

The course plan is a contract between you and the teacher. It defines a working procedure for the course material, your path and progress and the requirements you must meet. Please note that modifications to this course plan might be necessary throughout the semester. If you have questions or comments, please contact your teacher.

**Note on the course workload:** this undergraduate university course requires an average of 9 hours of work per week. You should be fully aware that to undertake this course successfully you must have the time to devote to it.

*General Objectives*

The general objectives of this course are to:

- Explain why information systems are so important today for business and management;
- Have the knowledge of the basic concepts and different types of technologies used in the field of management information systems;
- Understand the role of information systems in organizations, the strategic management processes, and the implications for the management;
- Develop an understanding of how various information systems work together to accomplish the information objectives of an organization;
- Understand the processes of developing and implementing information systems;
- Learn about the importance of managing organizational change associated with information systems implementation;
- Be aware of the ethical, social, and security issues of information systems.

*Detailed Objectives*

The specific objectives of this course are to:

- Assess the impact of the Internet and Internet technology on electronic business and commerce;
- Define an IT infrastructure and describe its components;
- Evaluate the role of the major types of information systems in a business environment and their relationship to each other;
- Learn the core activities in the systems development process;
- Identify the major management challenges to building and using information systems and learn how to find appropriate solutions to those challenges;
- Cultivate skills and experience in the development and implementation of information systems projects;
- Use the ERP application skills such as creating products, clients, suppliers, reports and dashboards, and apply it to real-world business problems.
Alignment between Course and Program Objectives

Links between course and BAA program objectives:

<table>
<thead>
<tr>
<th>Course Objective</th>
<th>Degree of achievement in the course</th>
<th>Performance-based measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learn how to make decisions.</td>
<td>Initiated</td>
<td>Individual and team-based work</td>
</tr>
<tr>
<td>2. Communicate.</td>
<td>Developing</td>
<td>Classroom discussions, discussion forums, teamwork</td>
</tr>
<tr>
<td>3. Collaborate and work as a team member.</td>
<td>Integrated</td>
<td>Teamwork</td>
</tr>
<tr>
<td>4. Be open to the world.</td>
<td>Initiated</td>
<td>Classroom discussions, discussion forums</td>
</tr>
<tr>
<td>5. Master technological tools.</td>
<td>Integrated</td>
<td>Discussion forums, use of information and communication technologies to access content on the course website and to execute the team-based work</td>
</tr>
<tr>
<td>6. Be open to change.</td>
<td>Initiated</td>
<td>Classroom discussions, discussion forums</td>
</tr>
<tr>
<td>7. Behave in an ethical manner.</td>
<td>Developing</td>
<td>Participation, individual and team-based work, exam</td>
</tr>
</tbody>
</table>

Instructional Approach

The course uses a teaching approach appropriate to management education. The teaching materials and the format used facilitate a learning process based on collaboration, communication and individual work. The teaching methods will assist you to manage your time in a way that is flexible yet structured, and in time with the pace of the course. More specifically, the course uses a hybrid instructional approach for its course contents. According to this hybrid approach, the screenshots and audio track of all class lectures are both streamed online and recorded to be accessed at a later time. Students have the choice of attending in class or to use the distance learning tools and resources provided to access course contents in real time or later on. For each class, all students can access the documents on the WebCT course website [http://www.webct.ulaval.ca](http://www.webct.ulaval.ca) and the files containing the screenshots and audio tracks on the following website: [http://cours.fsa.ulaval.ca/ced/sio.php](http://cours.fsa.ulaval.ca/ced/sio.php)

Overall, the course adopts a seminar approach in which class lectures allow students to learn about the specific topic of each class. As such, the purpose of the weekly meeting in class is to introduce information systems concepts, support the theory by showing real-world business cases, show how to apply application software skills to solve real-world business problems, and to test student’s comprehension of chapter material.

A combination of individual and team work is required in order to achieve the course objectives. The work required for each class, such as readings and homework assignments, can be found on the WebCT course website at [http://www.webct.ulaval.ca](http://www.webct.ulaval.ca). Students have also access to material in the textbook and its companion website to evaluate their understanding of the information system concepts introduced each week. Students are invited to post their questions and comments for feedback on the course’s online discussion forums. The student’s understanding of the course content is assessed through individual participation and work, teamwork, and a final exam in class.

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1. **Initiated** means that learning is becoming evident in line with the program’s goals and objective. **Developing** indicates identifiable learning in relation to the goals and objectives. **Integrated** means that the goals and objectives are understood and applied in a relevant manner in a variety of new contexts and situations. A course may incorporate one or more of the program’s goals and objectives. It may also initiate the learning process towards one goal and integrate the learning of another, depending on the particular abilities and skills on which the course focuses.

2. This refers to the evaluation methods used in the course to assess the degree of achievement of the program goals, for example: case study, open exam question, project, portfolio, quiz, etc. The same evaluation methods could be used to collect Assurance of Learning data.
Here is a list of learning activities that will be used in the course:

**Required and Suggested Readings**
You will be assigned a list of required and suggested readings from the textbook that will help you to assimilate the subject’s concepts. Readings from other sources may also be suggested on the WebCT course website.

**PowerPoint Presentations**
A series of PowerPoint presentations have been prepared to summarize the course content and guide classroom discussions.

**Online Discussion Forums**
A general discussion forum will be available to students to ask general questions about the course. Moreover, for each class, a discussion forum will be available to students to participate to discussions about the specific content of a class.

**Online Material**
To help you gauge your understanding of the course content, online material can be found on the textbook’s companion website.

**Business Cases**
Business cases will be analyzed to help students master the course content by allowing them to apply knowledge learned throughout the course.

**Individual and Team-based Work**
Individual team-based work will allow students to apply knowledge learned throughout the course. Consult the *Evaluation* section for more information.

**Final Examination in Class**
The last class constitutes a final examination in class on topics covered in the course. Consult the *Evaluation* section for more information.

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**Supervision**

The use of an hybrid instructional approach, in which the screenshots and audio track of all class lectures are both streamed online and recorded to be accessed at a later time, and technological tools offers a lot of flexibility in students’ learning. However, by adopting a regular learning rhythm from the beginning of term, you will be able to meet the course deadlines, use your learning community as a lever to help you in your own learning process and take advantage of teacher feedback on the course material. Students are the sole managers of their own time, but they must submit their assignments by the deadlines or face a penalty.

The teacher will give feedback on questions related to the course content through classroom discussions or in the online discussion forums. For graded work, feedback will be provided by email. Please not that you can always email your teacher to ask him more personalized questions.

Regarding the discussion forums, the instructor will guide discussions and the class’ problem-solving process by proposing questions on the course website. You are invited to submit answers on the specific discussion forums. This is a learning environment in which mistakes are allowed. However, inappropriate comments and behavior are forbidden.

**Comments on supervision:** The teacher will visit the course website at least 2 times a week. Questions asked on discussion forums will not be answered immediately but rather through classroom discussions or directly on the forums. Personal emails will be answered within a 48 business hour timeframe. To ensure a prompt answer, you are asked to make your questions and comments clear and self-explanatory (e.g. cite the names of the documents and the page numbers referred to).
## Course Schedule

<table>
<thead>
<tr>
<th>Class#</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>How Businesses Use Information Systems</td>
<td>Jan. 20, 2011</td>
</tr>
<tr>
<td>5</td>
<td>IT Infrastructure and Emerging Technologies</td>
<td>Feb. 10, 2011</td>
</tr>
<tr>
<td>6</td>
<td>Databases and Information Management</td>
<td>Feb. 17, 2011</td>
</tr>
<tr>
<td>7</td>
<td>Telecommunications, the Internet, and Wireless Technology</td>
<td>Feb. 24, 2011</td>
</tr>
<tr>
<td>8</td>
<td>Developing Information Systems</td>
<td>March 3, 2011</td>
</tr>
<tr>
<td>9</td>
<td>Reading week: from Monday March 7th to Saturday March 12th</td>
<td>March 10, 2011</td>
</tr>
<tr>
<td>11</td>
<td>Managing Global Systems</td>
<td>March 24, 2011</td>
</tr>
<tr>
<td>12</td>
<td>Enterprise Applications</td>
<td>March 31, 2011</td>
</tr>
<tr>
<td>13</td>
<td>E-Commerce</td>
<td>April 7, 2011</td>
</tr>
<tr>
<td>14</td>
<td>Enhancing Decision Making &amp; Managing Knowledge</td>
<td>April 14, 2011</td>
</tr>
<tr>
<td></td>
<td>Final exam: Tuesday April 19th, 2011 6:30pm</td>
<td>April 19, 2011</td>
</tr>
</tbody>
</table>

**Note:** For more information, go to the *Sessions* section of your course website.

## Course Content

The session is divided into 15 weeks. The course content is divided into 14 classes. A specific topic is covered in each class. For the complete description of activities, go to the [Classes] section of the course site.

### The course content is divided into four parts or themes:

<table>
<thead>
<tr>
<th>Class #</th>
<th>Date</th>
<th>Description</th>
<th>Required Readings</th>
<th>Homework Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Jan. 13, 2011</td>
<td>Information Systems in Global Business Today</td>
<td>Chapter 1</td>
<td>Personal presentation on the forum; Questions and exercises for chapter 1</td>
</tr>
<tr>
<td>#2</td>
<td>Jan. 20, 2011</td>
<td>How Businesses Use Information Systems</td>
<td>Chapter 2</td>
<td>Questions and exercises for chapter 2</td>
</tr>
<tr>
<td>#3</td>
<td>Jan. 27, 2011</td>
<td>Information Systems, Organizations, and Strategy</td>
<td>Chapter 3</td>
<td>Questions and exercises for chapter 3</td>
</tr>
<tr>
<td>#4</td>
<td>Feb. 3, 2011</td>
<td>Social, Ethical, and Legal Issues &amp; Securing Information Systems</td>
<td>Chapters 4 &amp; 8</td>
<td>Questions and exercises for chapters 4 &amp; 8</td>
</tr>
</tbody>
</table>

**Part 1 : Organizations, Management & the Networked Enterprise**

**Part 2 : Information Technology Infrastructure**
# Evaluations and Grading

## Assignments

### Graded Assignments

<table>
<thead>
<tr>
<th>Title</th>
<th>Due Date or Event Date</th>
<th>Submission</th>
<th>Type of work</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>Distance learning students: 8h00am the morning of the next class; Regular students: during each class</td>
<td>Distance learning students: online discussion forums; Regular students: during classroom discussions</td>
<td>Individual</td>
<td>10%</td>
</tr>
<tr>
<td>Individual Work</td>
<td>8:00am March 17, 2011</td>
<td>Electronic Drop Box</td>
<td>Individual</td>
<td>20%</td>
</tr>
<tr>
<td>Teamwork</td>
<td>8:00am April 19, 2011</td>
<td>Electronic Drop Box</td>
<td>Team</td>
<td>40%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>6:30pm April 19, 2011</td>
<td>Classroom</td>
<td>Individual</td>
<td>30%</td>
</tr>
</tbody>
</table>

### Detailed Information on Graded Assignments

**General guidelines**

Practical work is intended to assess your learning and your ability to apply and translate ideas studied to actual situations. **Work can be submitted in English or French.** Students are asked to pay special attention to spelling and clarity of expression in their work, term papers, cases and projects. These elements will be considered in the
evaluation. Students must also complete and return assignments to be graded by the deadline dates (see the Evaluations section on the course website).

### Participation (10%)

**Description and instructions**

Each class requires students to participate actively to discussions. As such, questions proposed on the course website can serve as a guide for classroom discussions.

**Date and submission**

Distance learning students: for each class, they must write a short text (½ page maximum) responding to the discussion questions posted on the course website no later than 8h00am the morning of the next class.

Regular students: for each class, they must participate in classroom discussions.

**Assessment criteria**

For each class, students’ participation is assessed on a Pass/Fail basis.

Distance learning students: participation is evaluated through the production or an original and relevant text on the online discussion forums. Texts on discussion forums are not directly answered or corrected but will be used as a guide for classroom discussions.

Regular students: participation is evaluated through the production of original and relevant answers and interactions during classroom discussions.

Criteria for original and relevant participation:

Original: unique contribution having the student as the source;

Relevant: clear links with the class content, right use and understanding of major concepts covered in the class.

### Individual Work (20%)

**Description and instructions**

The individual work offers to students the opportunity to improve their knowledge about three (3) different information technologies covered in the course.

Deliverable: Written report describing the information technologies chosen (10 pages maximum excluding bibliography and cover pages);

Documents should be submitted in Word, Powerpoint or PDF formats. The report must be written using the Times New Roman 12 font, 1½ line spacing and 1 inch margins all around.

The report must include the following sections:

- Introduction of the three technologies chosen;
- Objectives of these three technologies;
- Description of these three technologies;
- Analysis of their strengths and weaknesses;
- Analysis of the ethical issues that can result from the use of these information technologies by organizations and individuals;
- Conclusion;
- Bibliography listing the sources and references used to produce the report.

### Teamwork (40%)

In teams of maximum 4 people, students should invent a fictive organization and define its mission statement and objectives. Then, they must explain how information systems and technologies can be used to support its mission and objectives as well as its operational, managerial, and strategic activities. In writing the report, students should be as specific as possible. For example, they should specify the organizational activity (or business process) and the information technology analyzed.

Deliverables:

1) Written report explaining how information systems and technologies can be used to support the mission and objectives of the fictive organization as well as its operational, managerial, and strategic activities (20 pages maximum excluding bibliography and cover pages);

2) Classroom presentation (or a tutorial if no team member can be physically present) describing the report and showing practical examples

Documents should be submitted in Word, Powerpoint or PDF formats. The report must be written using the Times New Roman 12 font, 1½ line spacing and 1 inch margins all around.
The report must include the following elements:

- Introduction;
- Mission and objectives of the fictive organization;
- General description of the fictive organization: industry, environment, major clients, major suppliers, etc.;
- Description of its operational activities and how information systems and technologies can support them;
- Description of its managerial activities and how information systems and technologies can support them;
- Description of its strategic activities and how information systems and technologies can support them;
- Analysis of the ethical issues that can result from the use of these information technologies by the organization and the individuals within it;
- Conclusion;
- Bibliography listing the sources and references used to produce the report.

Assessment criteria
The teamwork will be assessed using the following method:
- Assessment by the instructor (35 %)
- Assessment by team members (10 %)

Final Exam (30%)

Description and instructions
The final exam will be done in the classroom under supervision. It will cover all course content. No material will be allowed. Students must be available within the entire examination period.

Students who live too far from the examination location (Université Laval) will have to arrange for a guarantor for the final exam and therefore must register for their examination location as soon as possible by using the following hyperlink: www.distance.ulaval.ca/lieu_examen. They must also follow the procedures that appear on the following website: http://www.distance.ulaval.ca/sgc/index/pid/9680.

*Grading Scale*

<table>
<thead>
<tr>
<th>Range</th>
<th>Grade</th>
<th>Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.00 – 95.00</td>
<td>A+</td>
<td>77.49 – 74.00</td>
<td>C+</td>
</tr>
<tr>
<td>94.99 – 91.50</td>
<td>A</td>
<td>73.99 – 70.50</td>
<td>C</td>
</tr>
<tr>
<td>91.49 – 88.00</td>
<td>A-</td>
<td>70.49 – 67.00</td>
<td>C-</td>
</tr>
<tr>
<td>87.99 – 84.50</td>
<td>B+</td>
<td>66.99 – 63.50</td>
<td>D+</td>
</tr>
<tr>
<td>84.49 – 81.00</td>
<td>B</td>
<td>63.49 – 60.00</td>
<td>D</td>
</tr>
<tr>
<td>80.99 – 77.50</td>
<td>B-</td>
<td>59.99 – 0.00</td>
<td>E (Fail)</td>
</tr>
</tbody>
</table>

*Results*

Your results will be available on the course website.

*Plagiarism*

The FSA does not tolerate conduct that does not comply with its ethical standards. The Règlement disciplinaire à l’intention des étudiants de l’Université Laval lists some 20 academic infractions that are subject to penalty. Everyone knows the most common errors, but are you aware that copying a few sentences from a work on paper or a website without inserting quotation marks or citing the source are two of the infractions? Or that summarizing an author’s original idea in your own words without citing the source, and translating a text in part or entirely without stating its origin, are also prohibited? To avoid exposing yourself to consequences ranging from failing a course to expulsion from the university, consult the following website: www.fsa.ulaval.ca/plagiat. You’ll find everything you need to avoid plagiarism.
Disciplinary Regulations

Any student who is found to have committed a violation of the Règlement disciplinaire à l’intention des étudiants de l’Université Laval (Université Laval student disciplinary regulations) in this course, especially involving plagiarism, will be subject to the penalties set out in the regulations. Students should familiarize themselves with sections 28 to 32 of the disciplinary regulations. These can be found (in French only) at the following web address: http://www.ulaval.ca/sg/reg/Reglements/Reglement_disciplinaire.pdf

Absence from Exams

It is your responsibility to ensure that you have no exam schedule conflicts at the beginning of the session, since no special arrangements can be made.

For more information, go to: http://www5.fsa.ulaval.ca/sgc/formation/baalaval/pid/12720

Deadlines and Overdue Work

The learning schedule laid out in the calendar should be adhered to as much as possible. Overdue work will be penalized at a rate of 10% off the mark a day for every day late up to a maximum of 6 days late. After that, the work will not be accepted and a mark of 0 will be given for that evaluation. For example, if an assignment is due at 8:00am on April 19th, a penalty of 10% off the mark will start to apply at 8:00am on April 20th.

There are exceptional circumstances that may prevent a student from submitting an assignment on time. In such cases, it is the student’s responsibility to inform the teacher as soon as possible to discuss an extension or an alternative.

Laptop and Software Requirements

It is the student’s responsibility to have a laptop compatible with the FSA’s environment in order to participate in the learning and course evaluation activities that take place in and out of class (e.g. management simulations, online quizzes, Securexam, etc.).

Course Evaluation

A formative course evaluation will be made in week 4. This confidential evaluation will be used only by your teacher to ascertain the appropriateness of the teaching method or whether adjustments are required before the end of the session.

At the end of the course, the Faculty will conduct a summative evaluation, by soliciting your comments and suggestions, to determine whether the teaching method achieved its goals and your degree of satisfaction. During the session, a link to the course evaluation questionnaire will be uploaded to the course website home page. This evaluation is very important, as it will allow us to improve the course. The course supervisors thank you in advance for your collaboration. Please note that this evaluation is confidential.

Teaching Materials

For the activities in this course, you will have to obtain the required teaching materials and consult the teaching resources on the course website.
Required Materials

Textbook:
- **Title:** Management Information Systems – Managing the Digital Firm, Fifth Canadian Edition
- **Authors:** Kenneth C. Laudon, Jane P. Laudon, & Mary E. Brabston
- **Year:** 2011
- **Publisher:** Pearson Canada, Toronto
- **ISBN-13:** 978-0-13-507885-3

This material is available at Zone Université Laval in the Palasis-Prince or the Desjardins building. You can also order it online from: [http://www.zone.ul.ca](http://www.zone.ul.ca).

Supplemental Materials

- Supplemental resources may be added on the course website throughout the semester.

Online Resources

**Course website**
The course website is on the Université Laval course platform WebCT at this address: [http://www.webct.ulaval.ca](http://www.webct.ulaval.ca). If you have not visited the course platform yet, please consult the WebCT student guide at: [http://www.fsa.ulaval.ca/pti/guide_webct/guide_etudiant_webct_distance.pdf](http://www.fsa.ulaval.ca/pti/guide_webct/guide_etudiant_webct_distance.pdf). If you are registered in the course but do not have access to the course website, please check your registration in the "Libre-service Web des études" (student self-service window) at: [http://www.capsule.ulaval.ca/](http://www.capsule.ulaval.ca/).

**Computer equipment and software**
This course requires you to have access to a recent model computer, ideally with a high-speed Internet connection. You will find an equipment specifications and software grid at: [http://www.fsa.ulaval.ca/APTI/guide_webct/considerations_techniques.pdf](http://www.fsa.ulaval.ca/APTI/guide_webct/considerations_techniques.pdf)

References

Required readings for this course come from the required textbook: