YORK UNIVERSITY Faculty of Liberal Arts and Professional Studies School of Administrative Studies

ADMS 2511 - Management Information Systems, Section A Fall 2021 COURSE OUTLINE

COURSE INSTRUCTOR/CONTACT AND TIMES

Note that in-person sections A and F will be held subject to the nature of health regulations that are in effect due to COVID-19 at the time of the commencement of classes, which will be announced by York University prior to the commencement of classes.

Section A: Dr. Cristobal Sanchez-Rodriguez, adms2511@yorku.ca

Wednesdays, 11:30 am - 2:30 pm; Location: HNE038

First class: Wednesday, September 8 Last class: Wednesday, December 1

Send email from inside the YorkU.ca domain only. Email from outside the YorkU.ca domain may be blocked. Always close your email correspondence with your name, student number, and class section.

ORGANIZATION OF THE COURSE:

This is an in-person course. If you are unable to attend class please enroll in a different section.

CALENDAR COURSE DESCRIPTION AND PREREQUISITES:

Overview of information systems and technology: how information systems are selected, designed and managed to provide information needed to run organizations successfully. Topics include the strategic role of information systems; ethical considerations; technology; information systems risks; and security control considerations.

Prerequisite: AP/ADMS 1000 3.00. Course credit exclusion: AP/ADMB 2511 3.00.

Students are personally responsible for ensuring that they have the required prerequisites as stated in the course outline or in the course calendar. Students who do not have the prerequisites are at risk of being dropped from the course at any time during the course. The department will not be responsible for refunds resulting from students being dropped from a course due to a lack of the appropriate prerequisites.

TECHNICAL REQUIREMENTS FOR TAKING THE COURSE:

Several platforms or software will be used in this course (e.g., eClass (previously known as Moodle), Salesforce, PowerPoint, Adobe Acrobat, Word, Zoom) through which

students will interact with the course materials and the course director/TA, as well as with one another.

Please review the technology requirements and FAQs for eClass, Zoom and Moodle: https://lthelp.yorku.ca/95441-instructor-faq/how-do-i-access-my-moodle-course

Students will need a stable, higher-speed Internet connection to work with the class website and online quizzes and examinations.

Here are some useful links for student computing information, resources and help: Student guide to eClass and Moodle:

https://lthelp.yorku.ca/95441-instructor-faq/how-do-i-access-my-moodle-course

University Information Technology (UIT), Student Services: https://uit.yorku.ca/student-services/

Faculty of Liberal Arts and Professional Studies (LA&PS) Welcome to eLearning page has helpful information and quick links to email services, computing, counselling & disability services and other useful resources: https://elearning.laps.yorku.ca/

To determine Internet connection and speed, there are online tests, such as Speedtest (https://www.speedtest.net/) that can be run.]

COURSE LEARNING OBJECTIVES

The purpose of this course is to provide an overview of the role of information systems in today's organizations and business environment. Specifically, upon completing this course you should be able to:

- 1. Effectively use IS (information systems) terminology in oral and written communication.
- Explain the strategic role of IS by using Porter's competitive forces and value chain models.
- 3. Explain the importance of IS in business process management.
- 4. Explain the main ethical and privacy issues related to IS. Identify basic IS security risks and evaluate different types of IS security controls.
- 5. Describe the main technical elements of a company's IT infrastructure and recent developments in the management of hardware, software, networks, and databases.
- 6. Explain the differences between data, information and knowledge with examples.
- 7. Describe the main characteristics of eCommerce, mobile commerce and social commerce.
- 8. Describe the main characteristics of IS including TPS, FAIS, SCM, CRM, ERP, and Business Analytics. Provide applied examples of the use of these systems.
- 9. Explain the role of big data for organizations.

- 10. Describe different IS acquisition strategies and explain the roles that a user can play in each stage of the system development process.
- 11. Develop and implement applications using Salesforce to apply the terms and techniques discussed in the course.

REQUIRED COURSE TEXT / MATERIALS

Course text:

Rainer, Prince, Sánchez-Rodríguez, Splettstoesser Hogeterp and Ebrahimi. 2020. "Introduction to Information Systems: Supporting and Transforming Business", Fifth Canadian Edition, John Wiley & Sons, Canada, Ltd.

Any additional required reading materials will be posted on the course web site.

Warning:

- (1) Photocopying more than 10% of a textbook is illegal, and may involve penalties. Do not duplicate textbooks or obtain these photocopies.
- (2) Students are reminded of York University's policy regarding academic dishonesty as outlined in the York student calendars and are expected to comply with those policies in the completion of their work.

Software requirements:

The *developer edition of Salesforce* is required. Instructions for downloading this software are included in the 1a Max Labs assignment. (Free)

The Max Labs Project software (see https://www.themaxlabsproject.com/ for further information), cost U.S. \$19.99. For further information see the assignments section of this course outline. Note that assignment 1a does not require purchase of the software. Further instructions are available on our eClass/Moodle web site.

FALL 2021 DROP DATES

Undergraduate Fall/Winter 2021-2022 Important Dates | Registrar's Office | York University

Last date to add a course without permission of instructor: September 21, 2021 Last date to add a course with permission of instructor: October 5, 2021 Last date to drop a course without receiving a grade: November 12, 2021 If you withdraw between November 13 and the end of classes (December 7), the course remains on your transcript without a grade and is notated as "W".

EVALUATION:

Course work	Due date	Weight
Weekly quizzes	Individual multiple-choice quizzes to be completed online, submitted before 11:00 a.m. Tuesday of each week. Refer to individual sessions for due dates. Best 10 of 11 will be	5%
	counted.	
Practice Questions	Individual to be submitted online, submitted before 11:00 a.m. Friday of each week. Refer to individual sessions for due dates. Best 10 of 11 will be counted.	5%
Case assignment #1	Session 3, on eClasss, September 23	10%
Max Lab Assignments	Max Labs Assignment Lab 1 a, September 29 (Session 4) Max Labs Assignment Lab 1 b, October 6 (Session 5)	15%
	Max Labs Assignment Lab 2 a, October 27 (Session 7) Max Labs Assignment Lab 2 b, November 3 (Session 8) Max Labs Assignment Lab 3 a, November 10 (Session 9)	(3% each)
Midterm Examination	Session 6, Common online midterm Due Friday, October 22 at 12 noon (opens Thursday, October 21 at 9 am) Covers Sessions 1 through 5. Accommodation date is Tuesday, October 26 at 12 noon	20%
Case assignment #2	Session 10 on eClass, November 17	10%
Final Examination	Cumulative, covering the entire course. During regular examination schedule, December 9-23 DATES AND TIMES TBA	35%
Total		100%

Online weekly quizzes

Weekly quizzes are available on our eClass course website. There will be no make up for missed quizzes.

Practice Questions

These are to be completed weekly and submitted on eClass before the deadline. Details of practice questions will be available on the eClass. There will be a penalty of 20% for each day late.

Max Labs Assignments

To complete the five Max Labs Project assignments the developer edition of Salesforce.com will be used, which is free, available from the Salesforce website. Resource materials for the Max Labs Project are available from the Max Labs web site (cost US \$19.99), and details on how to obtain these resources are part of Lab 1 b.

The process for signing up for Salesforce.com as well as how to complete the lab assignments will be posted on eClass. There is a penalty of 20% for each day late.

Case Assignments

Details of the case assignments are available on our eClass course website. Completed assignments will be posted to a Turnitin link on our web site that evaluates the originality of the assignment. There is a penalty of 20% for each day late.

Midterm exam

If the midterm examination is missed due to an illness, or other extenuating circumstance, the student should contact the instructor immediately for permission to access the accommodated date link. The documentation is to be provided the next business day after the missed midterm exam, however an attending physician statement due to medical reasons is not required at this time. IMPORTANT: students who miss both the originally scheduled examination due date and the accommodated date will receive a grade of zero for the midterm.

Missing other coursework

If a student misses any other coursework he or she will receive a grade of "0" for that piece of course work unless discussed and approved with the course director with appropriate documentation prior to the due date.

Academic honesty and integrity

Here at York University, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing York University's SPARK <u>Academic Integrity module</u> before completing your first quiz or assignment. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work or the representation of another's ideas as your own, for example). All instances of academic dishonesty in this course will be reported to the appropriate university authorities, and can be punishable according to the <u>Senate Policy on Academic Honesty.</u>

To promote academic integrity in this course, students will be normally required to submit their written assignments to **Turnitin** (via the course eClass site) for a review of textual similarity and the detection of possible plagiarism. In so doing, students will allow their material to be included as source documents in the Turnitin.com reference database, where they will be used only for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin service are described on the Turnitin.com website. In this course, the take home portions of the examinations will be submitted via a Turnitin link on our course website.

About the Grading Scheme

Refer to course web site and details of assignments posted on the course eClass web site.

Grades submitted by an instructor are subject to review by the teaching unit in which the

course is offered and by the Faculty Council or Faculty Committee on Academic Policy and Planning. Final course grades may be adjusted to conform to program or Faculty grades distribution profiles. Normally, grades appear on grade reports and transcripts as soon as they are submitted to the Registrar's Office.

https://calendars.students.yorku.ca/2021-2022/grades-and-grading-schemes

EXPANDED COURSE DESCRIPTION:

This course provides an overview of information systems and how such systems are selected, designed and managed to provide information needed to run organizations successfully. Students will consider the strategic role of information technology and systems within organizations and in a competitive business environment, as well as the ethical implications of information systems. This course will examine the technical foundations of information systems, their impact on organizational design, management, and their impact on knowledge accumulation and decision-making. Information systems risks, security and control issues are also covered.

ORGANIZATION OF THE COURSE:

Session Description and Learning Objectives	Readings, Assignments and Quizzes
Session 1 - September 8 Information Systems and the Modern Organization Learning Objectives: • Understand course evaluation methods, assignment structure and the nature of plagiarism • Identify the reasons you need to be an informed user and how this relates to the difficulty of managing information resources and interacting with the information	READ Chapter 1 Practice Questions S1 to be submitted online details on eClass Reminder: Do Quiz 1, Due Before 11:00 am
 systems department Describe information technology jobs Explain the nature and purpose of data items, information and knowledge and how they are used Examine the basic components of an information system and interrelationships among components Explain how IT affects organizations, managers, employees and society 	Tuesday morning, September 21

Session 2 - September 15	READ Chapter 2
Types of Information Systems: Concepts, Management	
and Strategy	Practice Questions S2
Learning Objectives:	to be submitted online
	details on eClass

 Discuss the importance of planning for information
technology, and the link between IT planning, business
planning and strategy

- Explain business process management and the role IT plays as an enabler
- Examine business pressures and how organizations respond to them with the use of IT
- Explain the role of IT in building competitive advantage using Porter's five forces model and value chain model
- Assess which strategies for competitive advantage could match selected organizations
- Discuss the alignment between business strategy and IT and the role of information technology governance

Reminder: Do Quiz 2, Due Before 11:00 am Tuesday morning, September 21

Session 3 - September 22

Ethics, Privacy, Information Security and Controls Learning Objectives:

- Discuss the role of ethics in the corporate environment and the major ethical issues raised by the use of information systems
- Describe privacy and explain how IT affects privacy
- Discuss privacy of information and anti-spam legislation in Canada and the implications for IT
- Explain the main threats and risks to information security and information systems
- Describe the purpose and nature of different types of IS security controls and provide examples of each
- Link controls to the threats they could mitigate or prevent
- Explain the roles of business continuity planning and of information systems auditing
- Identify behavioural and computer-based actions you could take to protect your information assets using a riskbased approach

READ Chapters 3 and 4

Practice Questions S3 to be submitted online details on eClass

Reminder: Do Quiz 3, Due Before 11:00 am Tuesday, September 28

Case Assignment #1 DUE: September 23, 11 am

Session 4 - September 29

Data, Information and Knowledge Management Learning Objectives:

- Describe the difficulties of managing data and how they can be mitigated by data governance
- Distinguish among clickstream data, transactional data and master data; apply types of usage to cases
- Use the data hierarchy and build E-R (entity relationship) diagrams
- Explain the characteristics of relational database management systems and their role in information reporting
- Explain the nature of big data, data warehouses and data marts, their advantages, disadvantages, control objectives and how they facilitate business analytics
- Explain the knowledge management system cycle and describe the role of knowledge management systems in managing explicit and tacit knowledge
- Provide an example of an SQL query; use E-R diagrams and explain how normalization is accomplished using database joins

Max Labs Assignment Lab 1 a

DUE: Wednesday, September 29, at 11 am online

READ Chapter 5, including the Appendix

Practice Questions S4 to be submitted online details on eClass

Reminder: Do Quiz 4, Due Before 11:00 am Tuesday, October 5

Session 5 - October 6

Managing Computer Hardware and Software Learning Objectives:

- Discuss the computer hierarchy and explain its impact on IT usage
- Define the main hardware and software components of an information system and consider how they are used for business applications
- Explain the characteristics and uses of different types of information systems storage
- Discuss the differences between system software and application software with examples
- Discuss the advantages and disadvantages of open source software
- Describe the types of cloud computing, providing examples of how they are used for differing enterprise computing goals
- Discuss the benefits of and concerns with cloud computing.
- Examine strategic issues related to hardware, software and cloud computing to enable effective IT architectures

Max Labs Assignment Lab 1 b DUE: Wednesday, October 6, at 11:00 am online

READ Technology Guides 1, 2 and 3

Practice Questions S5 to be submitted online details on eClass

Reminder: Do Quiz 5, Due Before 11:00 am Tuesday, October 19

Reading Week October 9 to 15

No classes

Session 6 - Take-home Midterm Examination (Covering Sessions 1 to 5 inclusive), due Friday, October 22 at 12 noon

Students who miss the regular midterm examination date may register for an extended due date of Tuesday, October 26 at 12 noon. See "About the grading scheme" section of this outline and the course website for more details.

DO Practice midterm exam and read the study tips

Session 7 - October 27

Harnessing Telecommunications Networks, Web 2.0 and Social Computing

Learning Objectives:

- Describe the hardware, software and standards that comprise modern networks
- Explain the telecommunications and network technologies that comprise a telecommunications system and that support the Internet, intranets and extranets
- Discuss the origins and potential future of the Internet
- Discuss the main applications of network technologies in businesses for the purposes of discovery, communication, collaboration and education
- Describe Web 2.0 tools and types of sites
- Describe the benefits and risks of social commerce and methods used for shopping socially
- Explain the impact of social networking on organizations, including innovative uses for marketing, customer service and human resources

Max Labs Assignment Lab 2a

DUE: Wednesday, October 27, at 11 am, online

READ Chapters 6 and 9

Practice Questions S7 to be submitted online details on eClass

Reminder: Do Session 7 Quiz 6, Due Before 11:00 am Tuesday, November 2

Session 8 - November 3

Utilizing E-business and E-Commerce; Wireless Technologies

Learning Objectives: *E-business and E-Commerce*

- Describe and provide examples of the different types of e-commerce, their mechanisms and e-commerce business models for organizations, consumers and employees
- Explain the different types of electronic payment methods and evaluate their risks and benefits
- Describe ethical and legal issues associated with ebusiness

Wireless Technologies

• Describe and evaluate the main types of wireless transmission media and networks• Describe the major threats to wireless networks

Max Labs Assignment Lab 2 b DUE: Wednesday, November 3, at 11:00 am, online

READ Chapters 7 and 8

Practice Questions S8 to be submitted online details on eClass

Reminder: Do Session 8 Quiz 7, Due Before 11:00 am Tuesday, November 9

- Examine the Internet of Things and assess which sensors could be used
- Consider the effects of global positioning systems on the application of mobile computing and mobile commerce

Session 9 - November 10

Using Information Systems within the Organization Learning Objectives:

- Review the different types of information systems and their users
- Examine the benefits and limitations of transaction processing systems, functional area information systems, and ERP (enterprise resource planning) and ERP II systems
- Provide examples of these systems for typical organizations, stating how they would be used
- Discuss functional area information systems' reports and their uses
- Explain how ERP supports cross-functional business processes

Max Labs Assignment Lab 3a

DUE: Wednesday, November 10, at 11 am, online

READ Chapter 10

Practice Questions S9 to be submitted online details on eClass

Reminder: Do Session 9 Quiz 8, Due Before 11:00 am Tuesday, November 16

Session 10 - November 17

Customer relationship management, supply chain management and information technology Learning Objectives:

- Explain the basic concepts of CRM (customer relationship management) and SCM (supply chain management)
- Describe the functions and business applications of multiple types of CRM
- Describe problems along the supply chain and how IT can be used to solve them
- Describe EDI (electronic data interchange) and discuss its advantages and disadvantages
- Explain how EDI, extranets and portals support SCM
- Summarize the combined effects of automated CRM and SCM on businesses

READ Chapter 11

Practice Questions S10 to be submitted online details on eClass

Reminder: Do Session 10 Quiz 9, Due Before 11:00 am Tuesday, November 23

Case Assignment #2 DUE: November 17, 11 am

Session 11 - November 24

The Power of Business Analytics Learning Objectives:

• Describe roles performed by managers and explain the functions that IT plays in supporting decision making

READ Chapter 12 and Technology Guide 4

Practice Questions S11 to be submitted online

 Describe the business analytics process and its supporting pillars Provide the statistical procedures used to facilitate descriptive, predictive and prescriptive analytics Describe tools used for data presentation that support business analytics and business intelligence (dashboards and data visualization technologies) Contrast the capabilities of natural and artificial intelligence (AI) systems Describe the types of AI available and how their application can support business goals 	details on eClass Reminder: Do Session 11 Quiz 10, Due Before 11:00 am Tuesday, November 30
Session 12 - December 1 Acquiring Information Systems and Applications Learning Objectives: • Justify the importance of information technology planning • Describe the processes used to justify IT investments • Discuss the advantages and disadvantages of eight strategies for acquisition of IT applications • Describe the six processes in the traditional systems development process and discuss its advantages and disadvantages • Evaluate the advantages and disadvantages of alternative systems development methods and tools • Decide which acquisition method is best for different requirements or businesses	READ Chapter 13 Practice Questions S12 to be submitted online details on eClass Reminder: Do Session 12 Quiz 11, Due Before 11:00 am Tuesday, December 7
Session 13 Final Examination During regular examination schedule, December 9 to December 23, Cumulative: Covering Sessions 1 - 12 See "Relevant university regulations" section of this course outline for more details. DATES AND TIMES TBA	DO Practice final exam and weekly practice questions

RELEVANT UNIVERSITY REGULATIONS

Should there be any updates to these regulations, you can review the most recent Faculty of Liberal Arts and Professional Studies regulations, which are used by SAS (the School of Administrative Studies) at:

https://www.yorku.ca/laps/sas/academic-resources/common-course-policies/

Deferred Exams: Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at http://myacademicrecord.students.yorku.ca/deferred-standing

Any request for deferred standing on medical grounds must **comply with University regulations.** As of the writing of this outline the requirement for APS forms had been suspended. If it resumes, the **University will inform you of such resumption, and you would** include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred standing agreement.pdf

Attending Physician's Statement form: http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf

In order to apply for deferred standing (**even without a DSA**), students must register at http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf

followed by handing in a completed DSA form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the above-mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

Students who submit a request in compliance with University regulation or with approved DSA will be able to write their deferred examination during the School's deferred examination period. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed-book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not. Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

School of Administrative Studies deferred exams for the Fall 2021 term will be scheduled with the regularly scheduled final examinations of the Winter 2022 term.

Academic Honesty: The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated, and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at: <u>Academic Honesty,</u> <u>Senate Policy on | Secretariat Policies (yorku.ca)</u>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at: https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/

Grading Scheme and Feedback Policy: The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for 'full year' courses offered in the Fall/Winter Term be received by students in

all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible. For more information on the Grading Scheme and Feedback Policy, please visit:

Grading Scheme and Feedback (Policy) | Secretariat Policies (yorku.ca)

Tests and Exams - the 20% Rule: For all Undergraduate courses, except those which regularly meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please visit: Limits on the Worth of Examinations in the Final Classes of a Term (Policy) | Secretariat Policies (yorku.ca)

Reappraisals: Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered or confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy

Accommodation Procedures: LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: http://ds.info.yorku.ca/academic-support-accomodations/

Religious Accommodation: York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit: https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs

Academic Accommodation for Students with Disabilities (Senate Policy)

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit Student Accessibility Services | York University

Student Accessibility Services and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit http://www.yorku.ca/altexams/ Please alert the Course Director as soon as possible should you require special accommodations.

Effective date: July 13, 2021