NORTHWESTERN POLYTECHNIC

DEPARTMENT Business and Office Administration
COURSE OUTLINE – Fall 2023
BA3150 (A2): Management Information Systems – 3 (3-0-0) UT 45 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Innuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation, and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land, and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR:	Abigail Head, CPA, CMA, MBA	PHONE:	780-539-2712
OFFICE:	C304	E-MAIL:	AHead@nwpolytech.ca
OFFICE HOURS:	Monday & Wednesday 1 PM - 2:20 PM		

CALENDAR DESCRIPTION:

Theory and application of management information systems that support activities throughout an organization are examined. Concepts covered include information security and control, business analytics, data and knowledge management, e-commerce, and cloud computing. Privacy and ethics will also be discussed. Using software application tools, case study analysis and research, students integrate current best practices with emerging technology to meet a variety of business challenges.

PREREQUISITE: BA1150 Introduction to Computers

REQUIRED TEXT/RESOURCE MATERIALS:
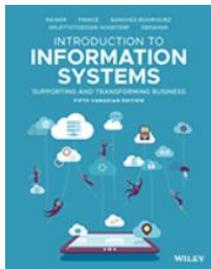
1. Text/e-book
   R. Kelly Rainer, Brad Prince, Cristobal Sanchez-Rodriguez, Ingrid Splettstoesser Hogeterp, and Sepideh Ebrahimi; Introduction to Information Systems Canadian Edition, 5th Edition Wiley Canada.
   This resource must include WileyPlus. Students must set time zone to mountain time (US & Canada) for duration of course.
2. CPA Data Analytics Topics and Tools (Free)
3. MS OFFICE 365 (Free)
   Go to myNWP Self-Service and My Profile for access.
4. Ivey Publishing Course Packs *(Additional Costs)*
   Each student enrolled must purchase the mini-cases *and* case study course pack(s) for submission and grading. Fees *per* case range from $5 - $8 CAD: approximate total case costs are $20 – $30 CAD. Course Pack fees are the responsibility of *each* student.
5. Turnitin
   Students are required to submit work in this course through plagiarism detection software. When this software is used, students are required to submit cases for grading into the myClass assignment folder before the due date.
6. Course Management Software
   NWP uses myClass (D2L/Brightspace) online course management system. In myClass, see the BA3150 course home page for important course information. To access visit
   https://myclass.gprc.ab.ca/d2l/home

DELIVERY MODE(S): On-campus (face-to-face)
This type of course will be delivered on campus in a specific location which will be indicated on the student timetable. Students are expected to fully attend in person.

LEARNING OUTCOMES:
Upon successful completion of the course, students will be able to:

Introduction to Information Systems (IS)
- Identify the reasons why being an informed user of IS is important in today's world.
- Describe the various types of computer-based IS in an organization.
- Discuss ways in which IS can affect managers and nonmanagerial workers.
- Identify positive and negative societal effects of the increased use of IS.

Organizational Strategy, Competitive Advantage, and IS
- Discuss the ways in which IS enable cross-functional business processes and business processes for a single functional area.
- Differentiate between business process reengineering, business process improvement, and business process management.
- Identify effective IS responses to various kinds of business pressures.
- Describe the strategies that organizations typically adopt to counter Porter's five competitive forces.

Ethics and Privacy
- Define ethics & explain ISs three fundamental tenets & the four categories of ethical issues related to IS.
- Discuss at least one potential threat to the privacy of the data stored in each of three places that store personal data.

Information Security and Controls
- Identify the five factors that contribute to the increasing vulnerability of information resources.
- Compare and contrast human mistakes & social engineering.
- Discuss the ten types of deliberate software attacks.
- Describe the three risk-mitigation strategies and provide an example of each one.
- Identify the three major types of controls and examples that organizations can use to protect their information resources.
- Explain why it is critical that you protect your information assets and identify actions.

Data and Knowledge Management
- Discuss ways that common challenges in managing data can be addressed using data governance.
- Discuss the advantages and disadvantages of relational databases.
- Define Big Data and explain ISs basic characteristics.
- Explain the elements necessary to successfully implement and maintain data warehouses.
- Describe the benefits and challenges of implementing knowledge management systems.
- Explain the fundamentals of Relational Database Operations

Telecommunications and Networking
- Compare and contrast the two major types of networks.
- Describe the wireline communications media and transmission technologies.
- Describe the most common methods for accessing the Internet.
- Explain the impact that discovery network applications have had on business and everyday life.
- Explain the impact that communication network applications have had on business and everyday life.
- Explain the impact that collaboration network applications have had on business and everyday life.
- Explain the impact that educational network applications have had on business and everyday life.

E-Business and E-Commerce
- Describe the eight common types of electronic commerce.
- Describe the various online services of business-to-consumer (B2C) commerce, along with examples.
- Describe the three business models for business-to-business (B2B) electronic commerce.
- Discuss the ethical and legal issues related to electronic commerce and provide examples.

Wireless, Mobile Computing, and Mobile Commerce
- Identify the advantages and disadvantages of each of the main types of wireless transmission media.
- Explain how businesses can use short-range, medium-range, and long-range wireless networks.
- Provide examples of how each of the five major m-commerce applications can benefit a business.
- Describe the Internet of Things (IoT) and provide examples of how organizations can use the IoT.

Social Computing
- Describe examples of Web 2.0 tools and major types of Web 2.0 sites.
- Describe the benefits and risks of social commerce to companies.
- Identify the methods used for shopping socially.
- Discuss different ways to use social networking sites for advertising and market research.
- Describe how social computing improves customer service.
- Discuss different ways in which human resource managers make use of social computing.

IS within the Organization
- Explain the purpose of transaction processing systems.
- Explain the types of support that IS can provide for each functional area of the organization.
- Identify advantages and drawbacks of implementing an enterprise resource planning (ERP) system.
- Describe the three core business processes supported by ERP systems.

Customer Relationship Management (CRM) and Supply Chain Management
- Identify the primary functions of both CRM and collaborative CRM.
- Describe how businesses might use applications of each of the two major components of CRM systems.
- Explain the advantages and disadvantages of mobile CRM systems, on-demand CRM systems, open-source CRM systems, social CRM systems, and real-time CRM systems.
- Describe the three components and the three flows of a supply chain.
- Identify popular strategies to solve different challenges of supply chains.
- Explain the utility of each of the three major technologies that support supply chain management.

Business Analytics
- Use a decision-support framework to demonstrate how technology supports managerial decision making at each phase of the decision-making process.
- Describe each phase of the business analytics process.
- Provide a definition and an example for descriptive, predictive, and prescriptive analytics.
- Describe two examples of presentation tools.

Acquiring IS and Applications
- Discuss the different cost–benefit analyses that companies must consider when formulating an IS strategic plan.
- Discuss the four business decisions that companies must make when they acquire new applications.
- Explain the primary tasks and the importance of each of the six processes involved in the SDLC.
- Describe alternative development methods and the tools that augment these methods.

Cloud Computing
- Describe the challenges that modern information technology departments face that could be solved by cloud computing.
- Describe the key characteristics and advantages of cloud computing.
- Describe each of the four types of clouds.
- Explain the operational model of each of the three types of cloud services.
- Identify the key benefits of cloud computing.
- Discuss the concerns and risks associated with cloud computing.
- Explain the role of web services in building a firm's IS applications, providing examples.

Artificial Intelligence
- Explain the potential value and the potential limitations of artificial intelligence.
- Provide examples of expert systems, machine learning systems, deep learning systems, and neural networks.
- Provide examples of computer vision, natural language processing, robotics, speech recognition, & intelligent agents.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page http://www.transferalberta.ca.

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

EVALUATIONS:

Mini-case studies	20%
Case Study	25%
Midterm Examination	25%
Final Examination (Comprehensive) (120 minutes/2 hours)	30%
Total	100%

Students are encouraged to complete all mini-case studies, the case study, and all examinations. Students will receive a zero (0) for any missed mini-case studies, case studies, and examinations. *Extra work is not assigned.* There are no re-writes, deadline extensions, or bonus assignments available to improve your grade.

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100		C+	2.3	67-69
A	4.0	85-94		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

The schedule is tentative and may vary slightly at the discretion of the instructor.

Week of . . .	Topic	*Required* Readings
Sept 3	Introduction to Information Systems Organizational Strategy, Competitive Advantage, & IS	Chapter 1 & 2
Sept 10	Ethics & Privacy	Chapter 3
Sept 17	Information Security and Controls	Chapter 4
Sept 24	Data & Knowledge Management	Chapter 5
Oct 1	Telecommunications & Networking	Chapter 6
Oct 8	Oct 9 Thanksgiving Day – No Classes E-Business & E-Commerce	Chapter 7
Oct 15	Wireless Mobile Computing & Mobile Commerce	Chapter 8
Oct 22	Social Computing	Chapter 9
Oct 29	Information Systems within the Organization Midterm Examination (25%)	Chapter 10
Nov 5	Customer Relationship Management & Supply Chain Management	Chapter 11
Nov 12	Remembrance Day & Fall Break – No Classes	
Nov 19	Business Analytics	Chapter 12
Nov 26	Business Analytics	Chapter 12
Dec 3	Acquiring Information Systems & Applications Case Study Due (25%)	Chapter 13
Dec 10	Acquiring Information Systems & Applications	Chapter 13
Dec 14 - 21	Final Examination (Comprehensive 30%) (120 minutes/2 hours)	All Chapters

STUDENT RESPONSIBILITIES:

Registered students are expected to abide by the rules and regulations of the Polytechnic. As students, rights apply to the Polytechnic in terms of what students are expected to know, expect, and receive in all aspects of their period of study at NWP. The standards of student responsibilities apply to all students in terms of what they are expected to take responsibility for and how to conduct themselves during their period of study at NWP. There are no exceptions to this policy. It is the student's responsibility to be fully acquainted with and adhere to NWP's policies, procedures or rules; see https://www.nwpolytech.ca/about/administration/policies/ and https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69

Participation

Students may be refused permission to write the final examination on the advice of the instructor. This usually happens when absences are more than four class absences (2 weeks), *or* if significant assessments like mini-cases, case studies and/or examinations are not completed; see Examination Policy and Debarred from Examinations; https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=37.

Attendance will be taken in class. Tardiness will be treated as an absence. Students may review their attendance on myNWP. During class time, it is expected that students will work on the BA3150 course material. Course materials (course outline, schedule information, etc.) and announcements will be published in myClass and/or NWP Webmail. Students are responsible for checking all three of these resources regularly: two to five times per week.

Webmail

Students may contact the instructor by webmail. Webmail will be answered within two business days outside of stated office hours. *Webmail correspondence must be sent to your instructor from your NWP Webmail account.* Webmail should be professionally formatted with correct spelling and grammar. Webmail must include a subject line and reference to the course code and material(s) and/or textbook pages, etc.

Copyright

NWP respects Canadian and International laws and agreements with respect to the use of copyright materials. It is the responsibility of the individual using copyrighted materials to ensure said use is compliant with Canadian law, the Use of Copyright Materials Policy, and the Copyright Practices Guide for NWP instructors and Staff. See https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=71

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at https://www.nwpolytech.ca/about/administration/policies/index.html.

**Note: all Academic and Administrative policies are available on the same page.