NORTHWESTERN POLYTECHNIC

DEPARTMENT Business & Office Administration
COURSE OUTLINE – Winter 2024
BA2620 (A3): 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 Inuit 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 (Abby) Head, CPA, CMA, MBA	**PHONE:**	780-539-2712
OFFICE:	C304	**E-MAIL:**	AHead@nwpolytech.ca
OFFICE HOURS:	Monday, Wednesday, & Friday 11:30 AM – 12:30 PM		

CALENDAR DESCRIPTION:

This course will examine how information systems are utilized by decision makers to achieve organizational goals. Governance and ethical issues related to IT are explored as well.

PREREQUISITES: BA1120 Principles of Accounting & BA1150 Computers in Business

REQUIRED TEXT/RESOURCE MATERIALS:

1. **PRINT TEXT/E-BOOK**

   Savage, Brannock, & Foksinska. (2022). Accounting Information Systems: Connecting Careers, Systems, and Analytics. John Wiley & Sons Canada.

   This textbook includes WileyPLUS online access. **Students must purchase WileyPLUS online access for use during semester.** Both the textbook and WileyPLUS will be used extensively.

2. **SUPPLEMENTAL RESOURCES**

   Additional resources may be introduced by the instructor and are at no cost to students.

3. **OFFICE 365 (Free for NWP students)**

   Go to myNWP Self-Service. See My Profile and Account Information to obtain Software Access.

4. **SOFTWARE & NETWORK REQUIREMENTS**

   The following software apps and internet capacity are required to participate in online course content: see NWP requirements at https://www.nwpolytech.ca/doc.php?d=TECHREQ *and* WileyPLUS System requirements at https://wpsupport.wiley.com/s/article/WileyPLUS-System-Recommendations

5. **MINIMUM DEVICE REQUIREMENTS**

   A device must meet or exceed the following specifications to participate in online course content at NWP: see NWP requirements at https://www.nwpolytech.ca/doc.php?d=TECHREQ *and* WileyPLUS System requirements at https://wpsupport.wiley.com/s/article/WileyPLUS-System-Requirements

6. **COURSE MANAGEMENT SYSTEM**

NWP uses myClass (D2L/Brightspace) online course management system. See the BA2620 course home page for important course information. To access visit https://myclass.gprc.ab.ca/d2l/home

DELIVERY MODE: On-campus (attend on-campus, in-person)
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 completion of this course, the student will be able to:
- Explain how business activities affects both the demand for and supply of information.
- Compare traditional transaction-based accounting systems with process-based information systems.
- Explain management's relationship to information and information systems.
- Describe the relationship between accounting and data analytics.

- Describe the nature of risk.
- Classify risks into different risk categories.
- Determine the quantitative value of risk.
- Explain how businesses respond to risk.

- Distinguish among the three functions of internal controls.
- Characterize a control by its location and implementation method.
- Explain the three lines of defense to ensure effectiveness of internal controls.
- Describe the importance of frameworks in an internal control environment.

- Summarize the characteristics and components of information systems.
- Identify technologies used by startups and small businesses.
- Explain how growing businesses enhance their systems.
- Describe the features of and implementation considerations for an enterprise resource planning (ERP) system.

- Differentiate between data elements and data types.
- Explain how data is stored.
- Summarize the five characteristics of big data.
- Apply data analytics to accounting problems.

- Outline the systems development life cycle (SDLC) stages.
- Compare and contrast the Waterfall and Agile systems development methodologies.
- Distinguish among different types of modern databases.
- Design relational database tables by using an entity relationship diagram (ERD).
- Construct queries to retrieve data and answer business questions.

- Explain how businesses identify risks & opportunities associated with emerging & disruptive technologies.
- Identify business opportunities provided by disruptive technologies.
- Apply the principles of robotic process automation (RPA) to accounting use cases.
- Identify the fundamental principles and technologies of blockchain.
- Explain blockchain's relevance to accounting professionals.
- Explain the goals of documenting systems and processes.
- Differentiate among various documentation techniques.
- Show how a flowchart illustrates a system or business process.
- Summarize how a data flow diagram (DFD) shows the flow of data in a system.

- Describe the marketing, sales, and collections processes for business-to-consumer sales.

- Evaluate the credit sales process and its related risks and controls.
- Identify risks and controls related to revenue recognition in the sales process.
- Assess the risks and controls related to the cash collections and accounts receivable processes.
- Connect the ERP system and underlying database to potential reports and analytics.

- Describe the COBIT framework and its five domains.
- Evaluate logical user access controls.
- Explain how physical access controls protect equipment and systems.
- Compare backup and recovery efforts.
- Summarize the change management process.

- Identify the main types of fraud.
- Describe the role of an accounting professional in fraud management.
- Explain how to identify, prevent, and detect asset misappropriation schemes.
- Identify financial statement fraud and explain how to mitigate its risks.

- Describe the relationship between cybersecurity risks and the accounting profession.
- Describe the characteristics of reconnaissance attacks.
- Compare and contrast physical and logical access attacks.
- Explain how hackers perform disruptive attacks.

- Identify career opportunities for accounting professionals working with data.
- Describe data analytics techniques that can explore data.
- Evaluate data analytics techniques that explain changes over time.
- Summarize advanced data analytics techniques that transform data into insights.

- Summarize the importance of user-centric design and storytelling in data visualization.
- Apply fundamental design principles to data visualizations.
- Evaluate visualization techniques for exploratory analysis.
- Describe visualization techniques that are used to create explanatory stories.

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.alberta.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:

Assignments	15%
Projects	15%
Quizzes	10%
Midterm Examination	25%
Final Examination (All chapters; cumulative) (2-hour examination)	35%
Total	**100%**

You are strongly encouraged to complete all assignments, projects, quizzes, and/or exams. Students will receive a zero (0) for any missed assignments, projects, quizzes, and exam(s). Extra work and rewrites are not assigned.

Grades are posted to myClass within five days of due date. The grades posted will not include your final letter grade. Please check your myNWP account for your final letter grade after course completion.

Evaluation Policies:

- Quizzes may be conducted as the course progresses. Students will be given advanced notice of quiz dates. Unexcused absences during a quiz will be assigned a grade of zero. Re-writes or extra work will not be granted for missed quizzes or unsuccessful attempts.

- Midterm is tentatively scheduled for the week of **February 25** during scheduled lecture. Do not plan activities or trips during this period. Unexcused absences during a term test will be assigned a grade of zero. At the discretion of the instructor, students with absences in excess of 4 classes *before* midterm will be refused the ability to move any test weightings to the final exam.

- Final exams will be written as scheduled by the Registrar during the exam period from **April 17 - 24, 2024**. Do not plan activities or trips during this period. Any unexcused absences will be assigned a grade of zero.

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 course schedule is approximate and may vary slightly at the discretion of the instructor.

Week Beginning…	Topic	Required Reading
January 1	Course Outline & Accounting Information	CH 1
January 8	Risks and Risks Assessments Risk Management and Internal Controls	CH 2/3
January 15	Software and Systems Data Storage and Analysis	CH 4/5
January 22	Designing Systems and Databases Emerging and Disruptive Technologies	CH 6/7
January 29	Emerging and Disruptive Technologies Documenting Systems and Processes	CH 7/8
February 4	Marketing, Sales, and Collections Processes	CH 12
February 11	Financial Reporting Processes	CH 13
February 18	Family Day and Winter Break	
February 25	**Midterm Exam** Information Systems and Controls	CH 14
March 3	Fraud	CH 15
March 10	Cybersecurity	CH 16
March 17	Data Analytics Business Conference (March 19)	CH 17
March 24	Data Analytics Data Visualization Good Friday (March 29)	CH 17/18
March 31	Data Visualization	CH 18
April 7/14	Data Visualization Last Day of Class (April 15)	
April 17 - 24	**Comprehensive Final Exam (Cumulative)(2-hour examination)**	**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

Attendance
Students are expected to attend all scheduled classes, arrive on time, and remain for the duration of the scheduled class. Students may be refused permission to write the final examination on the advice of the instructor. This happens when absences are more than four absences (2 weeks), *or* if significant assessments like assignments, quizzes, test(s), and/or exam(s) are not completed; see Examination Policy and Debarred from Examinations; https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=37.

Attendance is taken in class. Tardiness will be treated as an absence. Students may review their attendance on myNWP. During lecture and lab time, it is expected that students will work on the BA2620 course material. Course materials (course outline, schedule information, assignments, etc.) and announcements will be published in myClass, WileyPLUS,

and NWP Webmail. Students are responsible for checking all three of these resources regularly: two to five times per week.

Time Management
The expectation for this course is that students read/review the course material before class. Adopting and adhering to effective learning habits in this course will likely take up a great deal of time so plan your schedule accordingly. See **Course Schedule/Tentative Timeline** section above.

Recording
Recording lectures or taking photos in class is prohibited unless advance permission is obtained from the instructor and any guest presenter(s). In the event permission is granted, such recordings may only be used for individual study, and may not be reproduced, transferred, distributed, or displayed in any public manner. Any images taken without instructor consent will need to be deleted immediately.

Webmail
Students may contact the instructor by NWP Webmail. Webmail will be answered within one business day 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/index.html and https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=71 .

STATEMENT ON PLAGIARISM AND CHEATING:
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.