Course ID:	Course Title:	Winter 2024
BUS 472	Business Analytics	Prerequisite: BUS 272
		Credits: 3

Class Information		Instructor Information		Important Dates	
Delivery:	In Class	Instructor:	Barbara Coutts, M.Sc	First Day of Class:	January 8, 2024
Days:	M	Email:	Barbara.coutts@ambrose.edu	Last Day to Add/Drop:	January 21, 2024
Time:	6:30 pm – 9:30 pm	Phone:	403-878-5200	Last Day to Withdraw:	March 28, 2024
Room:	A2212	Office:	N/A	Last Day to Apply for Coursework Extension:	April 2, 2024
Lab/Tutorial:	M 4:45 pm – 6:15 pm A2212	Office Hours:	By Appointment	Last Day of Class:	April 8, 2024
Final Exam:	None				

Important Dates and Information

For a list of all important dates and information regarding participating in classes at Ambrose University, please refer to the Academic Calendar at https://ambrose.edu/academic-calendar .

Course Description

An in-depth examination of business analytics and data analysis techniques. Students will think critically about how to frame and solve business problems, and then learn how to build predictive models using object-oriented program language to address these problems. To evaluate selected cases in the fields such as, finance, marketing, and human resources, this course will teach students to apply the three dimensions of business analytics: descriptive, predictive, and prescriptive analytics. In addition, they will examine the emerging ethical guidelines that govern the use of big data. Instruction will consist of lecture and tutorials.

Expected Learning Outcomes

1. Understand and proficiently write in python with appropriate code diction.
2. Engage in python writing best practices when working with data types, expressions, strings, text files, lists, and dictionaries.

3. Understand important design element related to functions, recursion, and classes.
4. Present simple graphics and image processing while creating enticing graphical user interfaces.
5. Data Analysis and Visualization

Textbooks

Lambert, Kenneth A. (2024). *Fundamentals of Python: First Programs* (3rd ed.). Cengage Learning.

Course Schedule

January 8: Introduction / Data Types and Expressions
January 15: Control Statements
January 22: Strings and Text files
January 29: Lists and Dictionaries
February 5: Design with Functions
February 12: Design with Recursions
February 19: Reading Week
March 4: Simple Graphics and Image Processing
March 11: Graphical User Interfaces
March 18: Design with Classes
March 25:Data Analysis and Visualization
April 1: Easter Monday
April 8: Searching, Sorting, and Complexity

Requirements:

Modules are to be completed through MindTap (purchase through the Ambrose bookstore). Students will have one week to complete the module for each chapter. It is recommended that students plan out their time accordingly, as typical homework requirements for courses are 3-4 hours per week per course. The module capstone and the Power BI exercise will be released on Moodle and should be submitted on Moodle.

Modules Exercises: 50%
Final project: 35%
Attendance: 15%

Attendance:

Attendance at all classes is mandatory, unless otherwise coordinated with the professor. Failure to attend class may result in falling behind. During class, students are expected to participate by working on the in-class worksheets and submitting them after class on Moodle.

Grade Summary:

The available letters for course grades are as follows:

Grade	Interpretation	Grade Points
A+	Excellent	4.00
A		4.00
A-		3.70
B+	Good	3.30
B		3.00
B-		2.70
C+	Satisfactory	2.30
C		2.00
C-		1.70
D+	Poor	1.30
D	Minimal Pass	1.0
F	Failure	0.00
P	Pass	No Grade Points

Because of the nature of the Alpha 4.00 system, there can be no uniform University-wide conversion scale. The relationship between raw scores (e.g. percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously.

Please note that final grades will be available on student registration system. Printed grade sheets are not mailed out.

Ambrose University Important Policies & Procedures:

Registration
Registration is the process of selecting and enrolling in classes for upcoming semesters. Only students who are registered will be permitted to attend class and receive a grade for the course. You are responsible for ensuring that the courses you take are appropriate for your program, that they do not have any scheduling conflicts, that they have the necessary prerequisites and that they meet all degree requirements.

Withdrawal From A Course
Prior to the Add/Drop deadline: through the student registration system whereby course(s) will be removed with no academic or financial penalty. After the Add/Drop deadline and until the Withdrawal deadline: through submission of the 'Withdrawal from Course' form whereby course(s) will remain on the permanent academic record/transcript with the symbol 'W'. (See ambrose.edu/registrar/request-forms.) Students who withdraw from more than 30 credits attempted at Ambrose University will be required to withdraw from their program. Students considering withdrawing from courses are encouraged to discuss with their Faculty Advisor and/or the Office of the Registrar questions relating to their withdrawal decision specifically relating to financial assistance, study permit requirements, prerequisites for subsequent courses, readmission, and/or graduation timeline. Students who do not formally withdraw from a course are still considered registered in the course, even if they are no longer attending classes. In this case, students will be assigned a grade based on coursework completed as per the course syllabus and are responsible to pay the tuition and fees assessed for the course. Under extenuating circumstances, students may request from the Office of the Registrar a course(s) withdrawal after the Withdrawal deadline and until the last day of classes. Extenuating circumstances typically consider situations such as medical emergencies, compassionate grounds, or unforeseen conditions/situations beyond the students' control that arise after the start of the semester and are considered on a case-by-case basis. Supporting documentation from a physician or Registered Health Professional must accompany this request.

Coursework Extensions
Should a request for a time extension on coursework exceed the end of the term, a *Coursework Extension Application* must be completed and submitted to the Office of the Registrar. The extension (if granted) will be recorded on the student record. Extensions are granted at the discretion of the instructor and registrar. If granted, time extensions do not excuse you from a final examination where one has been scheduled for the course. More conditions apply.

Exam Scheduling
Students who find a conflict in their exam schedule must submit a *Revised Final Exam Time Application* to the Office of the Registrar by the deadline noted in the Academic Calendar. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; or 2) the scheduled final examination slot results in three consecutive examination periods. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

Communication
Your Ambrose email account is the University's primary and official mode of communication with you. Information delivered to your

Ambrose email is considered official notification. Ambrose University is not responsible for your failure to receive important information delivered to your Ambrose email.

Lecture Recording
The recording of lectures or any other classroom academic activity, other than an audio recording as an accommodation, is prohibited except at the discretion of the instructor. Any use other than that agreed upon with the instructor constitutes academic misconduct and may result in suspension or expulsion. Permission to allow a lecture recording is not a transfer of any copyrights, so such recordings may be used only for individual or group study with other students enrolled in the same class and may not be reproduced, transferred, distributed or displayed in any public or commercial manner. Student must destroy recordings in any, and all formats at the end of the semester in which they are enrolled in the class. All students recording lectures, must sign the Permission Form to audio record lectures which is available through the Office of the Registrar.

Standards of Behaviour in the Classroom Setting
Learning is an active and interactive process, a joint venture between student and instructor and between student and student. Some topics covered within a class may lead to strong reactions and opinions. It is important that Students understand that they are entitled to hold contradictory beliefs and that they should be encouraged to engage with these topics in a critical manner. Committing to this type of "active learning" significantly increases the learning experience for both teacher and student, and reflects the Christian imperative to pursue truth, which lies at the heart of the Ambrose educational experience. However, active discussion of controversial topics will be undertaken with respect and empathy, which are the foundations of civil discourse in the Classroom Setting. Primary responsibility for managing the classroom rests with the instructor. The instructor may direct a student to leave the class if the student engages in any behaviour that disrupts the classroom setting. If necessary, Ambrose security will be contacted to escort the student from class.

Academic Integrity
We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to acknowledge to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

Academic Policies
It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. The academic calendar can be found at https://ambrose.edu/academics/academic-calendar

Privacy
Personal information (information about an individual that may be used to identify that individual) may be required as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Academic Success and Supports

Accessibility Services
Academic accommodation is provided to Ambrose students with disabilities in accordance with the Alberta Human Rights Act and the Canadian Charter of Rights and Freedoms. Provision of academic accommodation does not lower the academic standards of the university nor remove the need for evaluation and the need to meet essential learning outcomes. Reasonable accommodations are tailored to the individual student, are flexible, and are determined by considering the barriers within the unique environment of a postsecondary institution. It can take time to organize academic accommodations and funding for disability-related services. Students with a disability who wish to have an academic accommodation are encouraged to contact Accessibility Services as early as possible to ensure appropriate planning for any needs that may include accommodations. Staff can then meet with students to determine areas to facilitate success, and if accommodations are required, ensure those accommodations are put in place by working with faculty.

Learning Services
Learning Services provides support with
- **research and communication skills** (e.g., writing a paper, researching, giving a presentation), and
- **subject-specific skills** (e.g., solving a chemistry problem, reconciling a general ledger, understanding a philosophical argument).

We offer workshops, one-to-one tutoring, and more, and all of our services are **free** to students currently enrolled at Ambrose University. To learn more, please visit https://ambrose.edu/sas/learning-services.

Mental Health Support
All of us need a support system. We encourage students to build mental health supports and to reach out when help is needed.

On Campus:
- Counselling Services: ambrose.edu/counselling
- For immediate crisis support, there are staff on campus who are trained in Suicide Intervention Skills and can help you access mental health support. See https://ambrose.edu/student-life/crisissupport for a list of staff members.

- For additional wellness resources go to the Ambrose wellness page: https://ambrose.edu/wellness

Off Campus:
- Distress Centre - 403-266-4357
- Alberta Mental Health Helpline - 1-877-303-2642 (Toll free)
- Sheldon Chumir Health Care Centre - 403-955-6200
- Emergency - 911

Sexual Violence Support

We are committed to supporting students who have experienced gender based sexual violence in the past or while at Ambrose. Many of the staff, faculty, and student leaders have received Sexual Violence Response to Disclosure training. We will support you and help you find the resources you need and you can access information about reporting. Information about the Sexual Violence policy and on and off campus supports can be found on our website– ambrose.edu/sexual-violence-response-and-awareness.

Off Campus:
- Alberta's Oneline for Sexual Violence - 1-866-403-8000 call or text
- Clinic: Sheldon Chumir Health Centre - 403-955-6200
- Calgary Communities Against Sexual Abuse - 403-237-5888
- Chat: www.calgarycasa.com

Note: Students are strongly advised to retain this syllabus for their records.