Course ID:	Course Title:	2024 Fall
BHS 310	Quantitative Methods for Social Science	Prerequisite: BHS 240
		Credits: 3

Class Information		Instructor Information		Important Dates	
Delivery:	In-class	**Instructor:**	Joseph Roso, Ph.D	**First Day of Class:**	September 4
Days:	Tuesday & Thursday	**Email:**	joseph.roso@ambrose.edu	**Last Day to Add/Drop:**	September 15
Time:	4:00 – 5:15pm	**Phone:**	N/A	**Last Day to Withdraw:**	November 18
Room:	A2133	**Office:**	L2107	**Last Day to Apply for Coursework Extension:**	December 9
Lab:	Mondays, 1:00 – 3:00 pm A2133	**Office Hours:**	Tuesdays & Thursdays, 1pm – 3pm	**Last Day of Class:**	December 9
Final Exam:	December 17th, 1 pm				

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

This course is designed to give students a basic understanding of descriptive and inferential statistics. Emphasis is placed on practical application and students will learn to analyze and interpret basic statistical research. They will also learn to use computer software. Lecture and laboratory components will be involved.

Expected Learning Outcomes

By the end of this course, you will be able to…

1. …understand the scientific method as it applies to studying human subjects.
2. …communicate quantitative findings in writing, numbers, and data visualizations.
3. …understand the fundamentals of sampling, probability, and statistical inference.
4. …numerically summarize large datasets.
5. …understand and utilize statistical techniques such as hypothesis testing, t-tests, chi-square, ANOVA, and linear regression.

6. …use statistical software to apply the techniques learned.

Required Textbooks and Readings

Required

Diez, David, Çetinkaya-Rundel, Mine and Christopher D. Barr. 2019. OpenIntro Statistics, 4th Edition. Available for free under a Creative Commons License at: https://www.openintro.org/book/os/

Additional readings will be made available in Moodle.

Course Schedule

Week	Date	Topic	Readings	Assignments & deadlines
1	Sept 5	Introduction, why statistics, the research process	Familiarize yourself with the syllabus	None
	Sept 9 (LAB)	Basics of R and RStudio, introduction to workflow	Kieran Healy, "Get Started," Chapter 2 in *Data Visualization: A Practical Introduction* https://socviz.co/gettingstarted.html	Download and update R and RStudio Lab Assignment 1 (IN LAB)
2	Sept 10	Asking research questions	Booth et al. "From Topics to Questions", Ch. 3 in *The Craft of Research* James A. Davis, Pp 7-16 in *The Logic of Causal Order*	
	Sept 12	Variables and causal logic	Diez et al. Ch. 1.1 – 1.2 Javes A. Davis, Pp 22-34 in *The Logic of Causal Order*	
	Sept 16 (LAB)	Loading and Manipulating data	R Cookbook, "Loading data from a file" http://www.cookbook-r.com/Data_input_and_output/Loading_data_from_a_file/ Anthony Corbisieri, "Introduction to Data Manipulation with dplyr in R" https://rstudio-pubs-static.s3.amazonaws.com/1100722_ca1eeedc53c24e8388c00aa5a63d3600.html Robert I. Kabacoff, "Data Types" https://www.statmethods.net/data-input/datatypes.html Robert I. Kabacoff, "Creating new variables" https://www.statmethods.net/management/variables.html	Lab Assignment 2 (IN LAB)
3	Sept 17	Sampling	Diez et al. Ch. 1.3	

	Sept 19	Data visualization	Kieran Healy, "Look at Data," Chapter 1 in *Data Visualization: A Practical Introduction* https://socviz.co/lookatdata.html#lookatdata	
	Sept 23 (LAB)	Data visualization using ggplot	Kieran Healy, "Make a Plot," Chapter 3 in *Data Visualization: A Practical Introduction* https://socviz.co/makeplot.html	Lab Assignment 3 (IN LAB)
4	Sept 24	Summarizing data I – numerical data	Diez et al. Ch. 2.1	
	Sept 26	Summarizing data II – categorical data	Diez et al. Ch. 2.2	
	Sept 30	**NO CLASS – National Day of Truth and Reconciliation**		
5	Oct 1	Review and catching up		
	Oct 3	**Midterm 1**		
	Oct 7 (LAB)	Midterm review and forming your research question		Lab Assignment 4 (IN LAB)
6	Oct 8	Probability	Diez et al. Ch. 3.1 – 3.2	
	Oct 10	The Normal Distribution	Diez et al. Ch. 4.1	
	Oct 14	**NO CLASS – Thanksgiving**		
7	Oct 15	Foundations of Inference	Diez et al. Ch. 5	
	Oct 17	**NO CLASS – Professor Away**		
	Oct 21 (LAB)	Exploring the Foundations of Inference	Dai Shizuka, "Randomizations: Sampling from sets and probability distributions" https://dshizuka.github.io/RCourse/09.RandomNumbers.html [Only section 1: "Random Number Generators" – Ignore the section on "resampling techniques"]	Lab Assignment 5 (IN LAB)
8	Oct 22	Inference for categorical data: tests for difference in proportion	Diez et al. Ch. 6.1 – 6.2	
	Oct 24	Inference for categorical data: chi-squared	Diez et al. Ch. 6.3 – 6.4	
	Oct 28 (LAB)	Inference for categorical data in R	R Cookbook, "t-test" http://www.cookbook-r.com/Statistical_analysis/t-test/ R Cookbook, "Frequency tests" http://www.cookbook-r.com/Statistical_analysis/Frequency_tes	Lab Assignment 6 (IN LAB)

			ts/ [Only look at the sections on "chi-square" tests, ignore all the others]	
9	Oct 29	Inference for numerical data: test for difference in means	Diez et al. Ch. 7.1 – 7.3	
	Oct 31	Inference for numerical data: test for difference in means	Diez et al. Ch. 7.1 – 7.3	
	Nov 4 (LAB)	Inference for numerical data in R		Lab Assignment 7 (IN LAB)
10	Nov 5	Review and catching up		
	Nov 7	**MIDTERM 2**		
11	**Nov 11**	**NO CLASS – Remembrance Day**		
	Nov 12	**NO CLASS – Reading Week**		
	Nov 14			
	Nov 18 (LAB)	Midterm review and selecting a dataset		Lab Assignment 8
12	Nov 19	2-way chi-squared and power calculations	Diez et al. Ch.6.4; 7.4	
	Nov 21	ANOVA	Diez et al. Ch. 7.5	
	Nov 25 (LAB)	ANOVA Lab	R Cookbook, "ANOVA" http://www.cookbook-r.com/Statistical_analysis/ANOVA/	Lab Assignment 9 (IN LAB)
13	Nov 26	Introduction to regression	Diez et al. Ch. 8.1 – 8.3	
	Nov 28	Inference for regression and introduction to multiple regression	Diez et al. Ch. 8.4; 9.1	
	Dec 2 (LAB)	Regression in R	R Cookbook, "Regression and correlation" http://www.cookbook-r.com/Statistical_analysis/Regression_and_correlation/	Lab Assignment 10 (IN LAB)
14	Dec 3	Model selection and diagnostics	Diez et al. Ch. 9.2 – 9.4	
	Dec 5	Review and catching up		
	Dec 9 (LAB)	OPEN LAB – support for final project		Come prepared to do analysis for your final project
DECEMBER 17th, 1pm – FINAL EXAM				
DECEMBER 19th, 11:59pm – FINAL PROJECT DUE				

Requirements:

Assignment	Grade (%)	Learning outcomes
Attendance and Participation	10%	1, 3, 5
Lab Assignments	20%	2, 4, 5, 6
Exams		1, 2, 3, 5
Midterm 1	15%	
Midterm 2	15%	
Final	15%	
Final Project	25%	2, 4, 6

1) Attendance and Participation (10%)

You are expected to attend every class period and actively participate in the class. You have **TWO (2)** unexcused absences from class. Unexcused absences beyond the second will negatively impact the participation grade at the rate of two-thirds of a letter grade per absence (i.e. it will drop an A to a B+, and a B+ to a B-). Absences may be excused in the event of mandated university activities; family or medical emergencies; or similar extenuating circumstances. Arriving late to class or insufficient preparation/attention during a class period may result in failing to receive full credit for attendance during that class period.

2) Lab Assignments (20%)

Mondays are labs where you will have the opportunity to put the concepts we learn about in lectures into practice. Each lab will contain an assignment, instructions for which will be provided at the time of the lab. These labs are intended to be completed by you on your computer during lab time, and are to be turned in electronically by the end of the lab on Moodle. They should be submitted as .html documents produced from knitting RMarkdown files (we will go over what this means in the first lab). If you are struggling during the lab or have some technical problem that would prevent you from completing the lab in time, you may turn in the lab electronically by the end of the day (11:59pm), but I STRONGLY recommend you make every effort to finish the lab during the time allotted, as it will save you a lot of stress during the evening.

3) Exams (45% -- 15% each)

There will be three exams: two midterms and one final. These exams will cover both material presented during lecture and practical skills learned during the labs. These exams are intended to focus on material from each third of the course (midterm 1 on material from **Sept 5** to **Oct 1**, midterm 2 on material from **Oct 7** to **Nov 5**, and the final on material from **Nov 19** to the end of the term). However, the material of the course is itself cumulative – you must understand the basics of data management in order to calculate an average, how to calculate an average in order to grasp what a sampling distribution is, grasp what a sampling distribution is in order to conduct inferential statistics, etc. Therefore, the exams will at least indirectly test your knowledge on all the concepts covered in the course up to that point.

Exams are conducted in-person and are closed book – no notes are allowed. They will take place in our normal room either during regularly scheduled class time (for the two midterms) or during the course's scheduled final time (for the final). Phones are not allowed during exam time. Calculators are allowed, though the exams are designed such that they are not strictly necessary.

4) Final Project (25%)

You will turn in a final research project at the end of the term. This project will involve you downloading a real secondary dataset and conducting original statistical analysis on it to answer your own research question. You will submit a 7 – 8 page paper (5 – 6 pages of text) structured as follows:

- A statement of your research question and why it is important (1/2 – 1 page)
- A description of the dataset you selected (1/2 – 1 pages), including the:
    - Population the dataset is generalizing to
    - Sample size
    - Way the sample was collected
    - Any other important features of the dataset relevant to your analysis
- Detailed descriptions of the measures you used in your analysis, replicating the exact wording of all the survey questions you used (1 – 2 pages)
- Description of the specific statistical techniques you used in your analysis (1/2 – 1 page)
- Results of your analysis including:
    - At least one table (1 entire page for the table)
    - At least one figure (1 entire page for the visualization)
    - Text description of the results in the table and visualization (1 page of text)
- Brief discussion of the importance of your finding (1/2 – 1 page)

This paper should be submitted online in a .doc, .docx, or equivalent word processing document form with 1-inch margins all around. The text portions should be double spaced in a 12-point sensible font (such as Calibri or Times New Roman). Each table or figure should take up an entire page. If a table or figure is too big for a single page, it may use multiple pages. This paper will be graded using the Grading Rubric for Written Assignments below.

Attendance:

As described above, attendance is expected and will be a graded component of this course. Make sure you come to class having done the readings and prepared to engage. It is your responsibility to communicate to me any circumstances that emerge which may prevent you from attending class.

Grade Summary:

The available letters for course grades are as follows:

Percentage	Grade	Interpretation	Grade Points
96-100	A+	Excellent	4.00
91-95	A		4.00
86-90	A-		3.70
82-85	B+	Good	3.30
75-81	B		3.00
72-74	B-		2.70
68-71	C+	Satisfactory	2.30
63-67	C		2.00
60-62	C-		1.70
56-59	D+	Poor	1.30
50-55	D	Minimal Pass	1.0
0-49	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 official final grades are only posted on the student registration system.

Required Software

For this course, we will use R as the primary statistical package accessed through the integrated development environment (IDE) of RStudio. Both of these software packages are free and open source, and are great alternatives to proprietary statistical packages (e.g. SPSS or STATA). Because they are free and require no license, you can continue to use them for your own data analysis projects long after this course ends. You can download R at https://muug.ca/mirror/cran/ and RStudio at https://posit.co/download/rstudio-desktop/.

Class Policies:

Communication

My goal in this class is to build an environment to maximize your learning and success. To this end, communication with me is critical. If you have any questions or concerns about an assignment, fear you are falling behind, or have thoughts on how the MLB playoffs are shaping up, please reach out. I can only help you if I know you need help, and the only way for me to know if you need help is for you to reach out.

Technology

In most classes, I encourage students to refrain from using laptops entirely. However, due to the nature of this material, laptops will be essential. Laptops are **REQUIRED** for the lab sessions as we will be using statistical software during the lab. During the lecture sections, a laptop may be helpful in reference important concepts or conducting quick calculations on the fly. I nevertheless recommend taking handwritten notes (either on a tablet or paper), as empirical evidence (https://www.scientificamerican.com/article/why-writing-by-hand-is-better-for-memory-and-learning/) has shown that the process of writing notes by hand improves recall and brain connectivity because it forces you to cognitively process the information rather than simply quickly typing everything the lecture says. In both lectures and labs, your laptop is to be used ONLY for classroom purposes. Shopping, social media browsing, watching squash highlights (this is a real example), or other such activity is distracting both to you and your classmates.

Late Work

Late work will not be accepted. The due date for the final project is already set as late as I reasonably can set it before final grades are due, so any extension will require a coursework extension application with the registrar. Makeup exams will only be granted under extenuating circumstances.

Large Language Models (LLMs) and Academic Integrity

The last several years have seen a proliferation of Large Language Models (LLMs) designed to semi-convincingly imitate human written text. I strongly discourage you from using such applications for any purpose within this course. In my estimation, as they currently function, they offer a way to get around learning rather than a means to assist in learning. Though I discourage you from using these models, I cannot stop you from using LLMs as part of your writing process. However, lifting significant portions of text wholesale from the output of an LLM and inserting it into a written assignment with little or no substantive alterations is plagiarism and will, at minimum, result in a 0 on the assignment.

Grading Rubric for Written Assignments:

	Technical Content: Does the paper describe the methods and techniques employed precisely and accurately? Are the methods appropriate?	**Argument and Analysis**: Does the paper make coherent arguments which logically flow from premise to conclusion?	**Writing, Grammar, Tables, and Figures:** Is the writing clear, easy to understand, and free of grammatical errors? Are the tables and figures well designed?	**Formatting:** Does the paper use appropriate ASA formatting and follow the instructions of the assignment?
A: (86% - 100%)	The paper uses appropriate methods and techniques for the research question. The methods are employed correctly, and all of the information necessary to assess the methods is presented. The methods are described clearly, accurately, and precisely, with appropriate use of technical terms throughout.	The argument of the paper is clearly and directly stated. Sufficient evidence is presented supporting the key arguments of the paper. The argument follows logically and naturally from the evidence presented.	The writing is clear and easy to read with minimal spelling/grammar mistakes. The writing has a clear structure to it, with paragraphs flowing into each other naturally and building on ideas previously established. The tables and figures are formatted following best practices in the discipline, are clear and easy to read, and meaningfully contribute to the paper's argument.	The paper follows ASA format consistently. The paper is formatted exactly as specified in the syllabus. The paper follows the instructions for the assignment perfectly and includes all of the elements specified in the syllabus.
B: (72% - 85%)	The paper uses methods and techniques that are mostly appropriate, but there may be some minor errors in application or interpretation. Some minor information necessary to assess the methods may be absent. The methods are described clearly, but some of the language	The argument is present, but might be muddled. The paper presents evidence for the argument, but some important evidence may be missing, or the argument's claims go slightly beyond what is included in the paper. The logic of the argument is mostly sound, though it may occasionally be unclear.	There are a few spelling or grammar errors. The paper has a clear structure, but some revision to paragraph order or sentence structure may be in order. The tables and figures are relatively clear and easy to read, but in some places they do not follow best practices within the discipline. The tables and figures	The paper follows ASA format and assignment guidelines well, with at most a few minor errors. The paper includes nearly all of the elements specified in the instructions, but there may be one element that is missing or insufficient.

	used could be more precise. A few important technical descriptions may be missing.		are relevant to the topic, but what they show is not seamlessly integrated into the paper's argument.	
C: (60% - 71%)	The methods used are generally relevant, but may not be the most appropriate for the question or data structure. Important information is absent from the results. Descriptions of the methods are unclear, and important technical terms are either absent or used incorrectly.	There is an argument, but it is very unclearly stated. Some evidence is presented supporting the argument's claims, but much of the evidence presented is either irrelevant or insufficient. The logic of the argument is unclear and disconnected from the evidence that is presented.	There are many spelling or grammar errors. The paper has significant structural issues and has haphazard organization. The tables and figures display relevant data, but in an unclear or muddled way.	The paper has many errors in ASA formatting and/or assignment guidelines. The paper fails to sufficiently include multiple required elements spelled out in the assignment.
D: (50% - 59%)	The methods used are inappropriate to the question or data structure and/or are misapplied. Multiple essential pieces of information are absent. Description of the methods is confusing and lacking. Nearly all of the relevant technical terminology is absent or misused.	The paper does not articulate an argument in any decipherable way. Little evidence is presented supporting the argument. What evidence is presented is insufficient or irrelevant. There are significant errors in logic and reasoning.	There are substantial errors in grammar and spelling, making the paper difficult to read. The paper is very disorganized, making it difficult to follow what is trying to be communicated. The tables and figures present data that is barely relevant to the paper's argument. The tables and figures are confusingly formatted and difficult to read.	There are multiple significant errors in ASA formatting. Many important required elements are entirely absent.
F: (<50%)	It is not clear what methods or techniques the paper used at all.	The paper makes no attempt to articulate an argument.	The paper is not comprehensible. The paper has no	The paper makes no attempt to follow ASA formatting.

	The central findings are uninterpretable or not presented. There are virtually no appropriate uses of technical vocabulary.	No evidence is presented. To the extent that logical argument is present in the paper, it is entirely non sequitur.	organization whatsoever. The tables and figures are incomprehensible and/or entirely irrelevant.	The paper includes very few of the required elements.

Ambrose University Important Policies & Procedures:

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

Withdrawal From A Course

A formal application through the Office of the Registrar to be removed from a course prior to the Withdrawal deadline (see Academic Schedule) with the exception of students in the School of Education who must obtain approval from their faculty to withdraw from a course.

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.

Final Examinations

The dates for Final Examinations are noted in the Academic Schedule. Students and instructors must be available for examinations up to the last day of the examination period. Final examinations must be taken at the time specified in the official Examinations Timetable.

Final Examinations may be rescheduled through the Office of the Registrar only if the following circumstances are met:

- The scheduled final examination slot conflicts with another examination; or
- The scheduled final examination slot results in three consecutive examination periods.

Travel plans will not be considered an appropriate reason to request a revised final examination.

If you miss a final examination due to unforeseen circumstances, you must apply for a deferred final examination within 48 hours of the missed examination. If you are prevented from writing a final examination by illness or other extreme circumstances, you must apply to the Registrar for an alternate examination timeslot. Individual examinations are scheduled by the Office of the Registrar. All requests for deferral of a final examination due to health reasons must be accompanied by a letter from a physician.

Communication

Your Ambrose email account is the University's primary and official mode of communication with you. Official notifications and communications from Ambrose will only be sent to your MyAmbrose address. Students are responsible for ensuring their MyAmbrose email address is set up prior to the start of their first term at Ambrose and are accountable for reading messages sent to their MyAmbrose email account, or delivered through their student portal, on a regular basis to ensure important information is not missed. Ambrose University is not responsible for your failure to receive important information delivered to your Ambrose email.

Recording of Lectures

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.

Academic Misconduct and Misconduct in the Learning Environment

Academic misconduct is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community.

1. The University expects Students to conduct Academic Activities with integrity and intellectual honesty and to recognize the importance of pursuing and transmitting knowledge ethically.
2. Students who participate in, or encourage the commission of, Academic Misconduct will be subject to disciplinary action in accordance with this policy.
3. Students are expected to cooperate in investigations of allegations of Academic Misconduct. Obstructing an investigation may result in penalties under the Student Non-Academic Misconduct Policy.
4. The Registrar maintains exam regulations for all examinations administered by the Registrar's Office. Exam invigilators or proctors are proxies for the course instructor. A Student's failure to comply with these regulations will be investigated as an appeal of a Final Grade.
5. Instructors will clearly communicate their expectations regarding conduct required of Students completing academic assessments in their courses. A Student's failure to comply with those expectations will be investigated as potential Academic Misconduct.
6. In the Learning Environment (e.g., classroom setting), Students are responsible to conduct themselves in a manner that enhances, respects, and does not disrupt or bring harm or disrepute to Ambrose or Members of the University Community.
7. Standards of behaviour in the learning environment are understood to apply to all environments where learning activities occur (e.g., laboratories, classrooms, field trips, practicum settings). 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 learning environment.

Students who have been found responsible for committing Academic Misconduct or Misconduct in the Learning Environment may appeal the decision, and in some cases the sanctions, in accordance with the Academic Appeals Policy. However, sanctions requiring attendance at educational seminars and sanctions that are simply written warnings may only be appealed if the Student is also appealing the decision that they committed Academic Misconduct or Misconduct in the Learning Environment.
If an appeal is unsuccessful the original date of Suspension or Expulsion may take effect. If the Academic Appeals Committee decides that the original date is the appropriate one for a Suspension or Expulsion to take effect, the Student will not receive credit for Academic Activities completed pending the appeal decision.

Academic Appeals
A Student may appeal a decision made in response to final grades, academic misconduct, misconduct in the learning environment, academic probation or suspension on one or more of the following grounds:
a. there is evidence available that was not considered in the decision and that may have otherwise affected the decision being appealed; or
b. the decision being appealed was made in a procedurally unfair way; or
c. the appropriate process, as outlined in the Academic Calendars, was not followed; or
d. the decision contained an error in the application of the relevant Academic Regulations.
In general, Final Grade decisions and decisions regarding Academic Misconduct, or Misconduct in the Learning Environment, or Academic Progression Matters should be made as close as possible to the level at which the academic competence resides.
Dissatisfaction with a decision or with a University, Faculty or School policy, procedure, regulation, or standard is not a Ground of Appeal.
In general, events or academic performance that occur after the date of the decision being appealed are not considered to be relevant new information.
A Student must exhaust all decision making and appeal processes at each level before submitting an appeal to the Academic Appeals Committee. Contact the Office of the Registrar for more information.

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

Academic Accommodations
Ambrose recognizes its legal duty to provide reasonable academic accommodation to the point of undue hardship. This duty arises from human rights legislation, and failure to provide reasonable academic accommodation to a student with a documented disability may amount to discrimination under the Alberta Human Rights Act, RSA 2000, C A-25.5. Students with a disability who need an academic accommodation should contact Accessibility Services in the Student Academic Success office without delay.
See Accommodations and Accessibility Policy.

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 enroled at Ambrose University. To learn more, please visit https://ambrose.edu/sas/learning-services.

Mental Health Support
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.