



THE UNIVERSITY OF BRITISH COLUMBIA

Introduction to Data Analysis **PSYO 271-Sec. 101, Winter Term 2, 2021/22** **Monday & Wednesday 11:00 a.m.**

INSTRUCTOR	Jan Cioe, Ph.D. [UWO], M.A. [UWO], M.Phil. [Cantab], Hon. B.A. [U of T], R.Psych. [You may call me Jan (“Yawn”) or Dr. Cioe (pronounced as Dr. “C” “O”), Sir], he/him/his
CLASS	Monday & Wednesday 11:00-12:30 FIP 204
OFFICE	ASC 285
CONTACT	250-807-8732 (office); 250-763-1225 (home land line); jan.cioe@ubc.ca [email]
STUDENT TIMES	Monday, Tuesday, Wednesday, & Thursday 9:30–10:30 a.m. If these times are not convenient, others may be arranged via Zoom.
TEACHING ASSISTANTS	Jason Scott, (he/him/his), B.A. Honours Psychology [UBCO]; M.A. Psychology Student [UBCO] [Lead TA] jlscot1@mail.ubc.ca Emma Alcott, (she/her/hers), B.A. Psychology Student [4 th year, UBCO] ealcott@mail.ubc.ca Rebecca Anderson, (she/her/hers), B.Sc. Honours Psychology Student [4 th year, UBCO] rand5@student.ubc.ca Dyuthi Dinesh, (she/her/hers), B.Sc. Honours Psychology Student [4 th year, UBCO] dyuthi.dinesh@ubc.ca Chloe Kam, (she/her/hers), B.Sc. Honours Psychology Student [4 th year, UBCO] chloekam@mail.ubc.ca
TEXT READINGS	Available in Canvas.

CANVAS

I am using UBC's Learning Management System [Canvas] to give you access to material, to communicate with you, and to assess you. If you are new to the system, check out <https://community.canvaslms.com/docs/DOC-4121> and <https://students.canvas.ubc.ca/>; see also the Student Guide to Canvas Tips.

CANVAS REGISTRATION of iClicker Cloud

The iClicker Cloud is a response system that allows you to respond to questions I pose during synchronous classes, and you will be graded on those responses. There is no additional cost to use this technology.

The student version of iClicker Cloud is called iClicker Reef. Follow [the instructions in this student guide](#) to (1) set up an iClicker Reef account and (2) add a course to your iClicker account. In the Canvas PSYO 271 course, you will find an iClicker Cloud Sync link on the left side of the course menu – you will need this link to complete step 2.

I expect to use the iClicker Cloud in every class, so sign in to this account before the start of class—you are responsible for having it functional when you need it. In order to receive credit, you need to register your iClicker account before the second class [i.e., Jan. 12 before 11:00 a.m.]. If you enrol in the class after January 12th, register your iClicker account as soon as possible. Let me know if you registered late so that I can adjust the marks for the clicker questions you missed.

Bring your device [smartphone, tablet, laptop] to every class to use iClicker. During class [follow the steps in the student guide](#) to join a class session [third bullet] and to participate in iClicker activities [fourth bullet].

iClicker activities fall under the provisions of our campus academic honesty policy [see Academic Integrity for more details].

LEARNING OBJECTIVES

The goal of this course is to provide students with an understanding of the basic principles of behavioural data analysis in the context of the research methods and designs of Psychology. This is a demanding course if you want to do well. My expectation is that you will spend 6 hr/week working on course material in addition to coming to each class. This includes the homework, as well as the online activities [e.g., readings & quizzes].

STUDENT OUTCOMES

Higher-order Outcomes

By the end of the course, students are expected to be able to

- Have a complete enough understanding of both descriptive and inferential statistics so that they will be able to perform basic statistical procedures and answer questions on the underlying theory.
- Develop and express an understanding of the role of probability and statistics within psychological research, and that includes the ability to discuss their core concepts and

practical applications.

- Differentiate between statistical tests in order to choose the appropriate test and to answer specific research questions.

Lower-order Outcomes

These learning outcomes include the ability to do the following tasks:

- Identify the independent, dependent, extraneous, confounding, and control variables in a study
- Differentiate between descriptive and inferential statistics
- Explain measurement, measurement scales, variables, constants, and measurement error as they relate to statistical analysis
- Apply and interpret appropriate graphing/summarizing procedures associated with various kinds of data
- Calculate measures of central tendency and variability, and discuss the advantages and disadvantages of each of the techniques considered
- Explain and interpret resistant indicators
- Calculate and explain percentile points and percentile ranks
- Articulate the effects of scale changes on the mean and standard deviation/ variance
- Explain the nature of z scores and how to calculate them
- Know the theory behind the formulae for the mean, standard deviation [variance], percentile, and z ; this includes being able to apply these formulae from memory
- Explain the nature of the normal distribution and standard normal curve in relation to calculating probability, proportion, area, and percentile [and vice versa]
- Explain the principles underlying the application of probability to hypothesis testing and sampling distributions, including the Central Limit Theorem
- Differentiate between statistical tests in order to perform (a) single-sample, independent-sample, and correlated t tests; (b) correlation coefficients, equations of a regression line, and related statistical tests and concepts; and (c) confidence intervals
- Explain the nature of decision error and power in hypothesis testing
- Identify the assumptions that underlie the various statistical tests discussed in the course
- Discuss the limitations of hypothesis testing and the alternative approaches
- Explain how the results from an Analysis of Variance [ANOVA] can be used to interpret simple and factorial designs

See also “TOPICS covered in PSYO 271 21-22.pdf” for a more detailed listing of topics covered in the course in the Handout module.

FORMAT

This course will be taught primarily using a participatory lecture method in combination with a mastery learning approach. I will also be using response clickers during the lecture to monitor your comprehension of the material; ***these quizzes will be graded*** and contribute to your final mark. Given the cumulative nature of the course (i.e., later concepts are built on earlier ones), it is very important that the readings be done according to the schedule [see section on Late/Missed Assignments & Exams below]. Given that the assigned problems are associated with the specific

content of the day, the problems are **due one week after the date assigned**. This does **not** preclude reading or working ahead, but it does mean that the appropriate material **must** be read prior to the corresponding class.

Attendance at the lectures is expected; students, in the past, have experienced considerable difficulty in this course when classes have been missed. If you have to miss a class, you should access the recording of my lectures. The Teaching Assistants [TAs] and I will help you if you have any problems understanding the material. I am, of course, available to answer any questions you might have during my office hours or after class. If my posted office hours are not convenient, we can arrange for suitable alternative times.

MASTERY LEARNING

This course has been designed using the principles of mastery learning. In essence, this model is based on the belief that just about everyone can learn the material if given sufficient time and assistance. Although I cannot offer you unlimited time, I have adjusted the deadlines to give you some flexibility in how long you can work on a unit. Moreover I have tried to build in a system that can provide you with the assistance you need—**if you are willing to use it**.

Since the concepts of statistics and their associated methods are central to Psychology as a science, I am trying to ensure that all Psychology Majors have the basics down pat. Before you can move on to a new unit of material, I want you to demonstrate that you have a solid understanding of the current material. “A solid understanding” is operationalized [you may remember that concept from the Methods course] by **getting at least 80% on the unit tests**. With this knowledge you can then go on to learn the next unit’s content; moreover, you will be better prepared to take the course exams because you have already acquired the bulk of the information.

Accordingly, the course has been designed to present five [5] units of material which cover the basics. In fact, you have already had some exposure to many of these core concepts in PSYO 270. My task is to refine your understanding of this material so that you can perform fundamental statistical procedures and interpret the results in original research papers. We will not cover all the statistical techniques used by psychologists, but you should have a reasonable comprehension of the foundation of those techniques.

Statistics is particularly suited to mastery learning because it is cumulative in nature; the material builds in a logical and systematic way, such that you will likely have difficulty with later material if you do not adequately understand earlier concepts and procedures. Consequently, I want to encourage you to do all of the unit tests at the mastery level, and I will reward you for doing so. You may take each of the graded units test up to four [4] times. The specific questions on your test will be randomly generated from a large test bank, so it is likely that you will not have the same questions if you retake a unit test. If you do not reach the 80% mastery criterion, you fail that unit. You may still proceed to the next unit, but your grade will be reduced if you do so without successfully completing the prior unit. **I strongly urge you to delay retaking the unit test for at least 24 hr** so that you can identify the problems you had on the earlier version of the quiz and seek help from the TAs, tutors, or me.

You will not be abandoned. I have built in a variety of ways to help you learn the material. In addition to the recorded lectures, I will also put my cleaned PowerPoint presentations on Canvas so you can review them without advancing through the video version. There will be assigned homework questions for you to work on; I will provide the answers to all of these questions. I will make available a sample practice quiz for each of the units which reflect what the unit tests will look like; it will not be graded. Similarly, I will provide a sample Midterm exam where I will model what I expect your answers to be. I will endeavor to make sure that I clearly spell out what you need to know and how you can demonstrate it; if I do not do so, please let me know so that I can correct it. There will be a practice exam to ensure that you are aware of how that exam will be conducted.

I will be available for personal assistance during my student times [and at other times, if necessary], as will my Teaching Assistants [TAs]. We will be organizing volunteer tutors [who have already taken this course] to help you with the material. You will be able to set up study groups through Canvas; I can assist if necessary.

My goal is to ensure that you are all successful in this course.

SUPPLEMENTAL LEARNING PROGRAM

A Supplemental Learning (SL) component is provided for all students who want to improve their understanding of the material taught in this course. SL sessions are led by a student who has mastered the course material, done well in the class, and who is trained specifically to facilitate group sessions. An SL session provides students a chance to meet, review, and discuss important concepts, develop strategies for solving problems, and prepare for exams. Attendance at SL sessions is free and voluntary. Students may attend as many times as they choose.

There is empirical evidence that this program helps students do better in the class—it can boost your final grade substantially. SL is particularly helpful for students in the mid-range of grades, but it has been shown useful for all. SL is not a replacement for lectures, nor is it a review of the class lectures; rather SL gives **you**, the student, a chance to practice, to ask questions, and to share information with others who attend the class. SL sessions begin the second or third week of class and continue throughout the semester. A session schedule will be announced in class.

For information about the program, session schedule/updates, and possible study guides, visit their website at <https://students.ok.ubc.ca/academic-success/learning-hub/supplemental-learning/>

EVALUATION

Your final grade in this course is derived from five [5] sources:

Reading quizzes: One set of quizzes will be based on the assigned readings and will typically occur in the session where I cover a new text chapter [see course schedule]. The quizzes on the readings will be graded on a Pass/Fail with 60% set as the minimum to pass (e.g., 3 out of 5 multiple choice questions [5 min] or 2 out of 3 [3 min]). There are 18 quizzes of this type; these quizzes are worth 10% of your final course grade.

“In-class” quizzes: Multiple choice and True/False questions will be interspersed during the lectures and will assess material that was covered recently in the lectures or in the readings. My intention is to reward you for following along as I progress through the material in class.

I have yet to determine exactly how many questions I will ask, but these quizzes will contribute 10 marks to your course grade.

Unit tests: There are five [5] units which are sequentially organized. I want you to score **a grade of at least 80%** [mastery level] for the unit before you continue on to the next unit’s test. If you do not succeed on the unit test, you are advised to seek assistance from the TAs or me; we will also have a roster of volunteer tutors who may be willing to assist you.

You may take each unit test up to four [4] times in order to demonstrate mastery; if you have not reached the 80% mark after the fourth attempt, however, you will have failed that unit. You may proceed to the next unit in sequence and take the next appropriate test, but your grade will be reduced. When you complete all five unit tests at the mastery level you have earned 25 marks [5 × 5]. You earn 5 points for each one you achieve mastery on. Because the sequence of material is so important, if you have not reached the mastery level on the previous unit before you take the next unit test or you have reached the submission date with a pass, you have failed that unit [see section on Late/Missed Assignments & Exams below].

You control the timing of the unit tests to a certain extent, but each unit should be completed at mastery within approximately **two [2] weeks** of it being assigned. For example, unit test 1 will be made available at 12:30 p.m. on January 19th and you will have until February 2nd at 12:30 p.m. to reach the mastery level on it or else you will forfeit the marks that quiz. Check the dates for each unit quiz in Canvas since they vary from quiz to quiz. All three of the first unit quizzes need to be completed by February 28th at 9:30 [just before the Midterm exam begins] so that you are prepared for that exam.

The unit tests are to be taken on Canvas and usually involve 30 multiple choice questions, but sometimes there are fewer questions since some questions are more complex and therefore are worth more points. These unit tests are self-administered with a time limit of 50 min, except for Unit 4 which has a 90-min limit. Moreover, **you should not retake a unit quiz for at least 24 hr**; this delay will give you time to fix any problems which you have by doing some remedial work and/or seeking help. The delay means you need to plan this out so that your first quiz is no later than 5 days before the cutoff or you may not be able to have all four attempts available to you. The quizzes will contain both calculations and theory questions. You are expected to work independently and to take these tests only with authorized aids in order to mirror exam conditions. While you may think that doing whatever is necessary to pass the quizzes is a good idea, this strategy will ultimately work against you as you will not have acquired the necessary knowledge or skills to do well on the rest of the evaluation methods. In essence, **I am relying on your personal integrity to follow the rules. It is important for you to know, however, that if I find out that you have cheated, I will give you zero for the entire quiz component.** This is not a threat, but rather a clear expression of consequences and how strongly I feel about

this issue [see also Academic Integrity below]. A sample practice quiz is available for each unit; there are no marks for the practice quizzes.

Exams: There are two [2] closed-book exams [one Midterm and one Cumulative Final]. The first exam will cover Units 1-3. This Midterm exam will be similar to the unit tests in that there will be multiple choice questions drawn from the same test banks as the unit quizzes. However, you will now be required to show the process through which you obtained your calculated answers and generate some of the theory answers rather than simply identifying the correct response in a multiple choice format. There will also be some questions which evaluate a higher level of understanding and so will be more difficult. The Midterm will be 75 min in duration. The Final Exam is 150 min and is cumulative: It covers **all** the material from the start of the course until the end. Given that the Final Exam is cumulative, your marks for these two tests will be weighted 1:2; consequently, the Midterm Exam contributes 13 marks and the Cumulative Final Exam counts for 27 marks to your course grade. The two exams are to be taken at the time specified based on University policy. If you fail to take the Midterm Exam for a legitimate reason (see Late/ Missed Assignment & Exams), the grade from that Midterm exam will be shifted to the Final so that it will now be worth 40 marks towards your course grade.

Homework: I have assigned a series of homework questions for you to do as practice. It is **extremely** important that you do these questions in order to ensure that you have the necessary skills to succeed on the unit tests and exams. You will be handing in your assigned homework after converting it into a pdf document **each Wednesday by 11:00 a.m. PST** (see Homework Problem Schedule in Homework module) via Canvas. You will be rewarded for completing the assigned homework and handing it in. If you hand all of the completed homework you will earn 3% of your final course grade, but you will lose 1% for each assignment that is not handed in on time and complete. If you hand in a homework assignment but only complete part of it, then you will only receive part marks (e.g., if you only do half of the questions then you will lose 0.5 from the 3 marks).

In addition, we will also be marking the content of the homework. However, only a selection of these questions will be marked each week. Your homework will be evaluated for the steps you took to get your answer, not just the final answer since you will know what the correct final answer is. Therefore, you need to provide all the necessary details as set out in the model answers. Your mark on the content of the homework questions will contribute 12% toward your final course grade. You are to submit all of the homework assigned for the previous week; that is, the work assigned for Jan. 12th is due on the 19th; the work assigned for 19th is to be handed in the 26th, etc., except around the Midterm—check the Homework Problems schedule handout for details. In summary, the homework is worth 15%: 3% for submitting all of it, and 12% for doing it correctly.

Bonus marks: Bonus marks (up to 2%) are available to students who participate in psychological research through the volunteer subject pool. I would like to encourage you to participate in the subject pool because not only will you assist researchers (including fellow students) and earn some extra marks, you will also be seeing what it is like to be in a study. This can be a valuable experience which will enrich your understanding of behavioural research.

Students who wish to access these bonus marks, but not act as research participants, may elect to do the paper summary alternative (see SONA handout on Canvas).

SUMMARY

Text /readings quizzes [10% max]	Quizzes = 10
In-class quizzes & surveys [10% max]	Number of questions vary = 10
Unit tests [25% max]	5 tests at 80% = 25 4 tests at 80% = 20 3 tests at 80% = 15 2 tests at 80% = 10 1 test at 80% = 5
Term exams [40% max]	Midterm = 13 Final = 27
Homework [15% max]	Marked homework = 12 Handing in each homework assignment on time = 3 [lose 1 point for each assignment <u>not</u> submitted on time, and part marks for incomplete assignments]

APPROVED CALCULATOR

A **basic calculator** with a square root and memory function is necessary for course work. Sophisticated calculators with built-in or programmable statistical functions are **not** permitted and **cannot** be used during examinations. It is recommended that you use an approved calculator when completing all unit tests and homework to ensure you are comfortable and familiar with the calculator you will be using during your exams. We will be doing a calculator check prior to the Midterm exam; I will ask you to bring the calculator you intend to use to class and we will examine it to see if it is OK. Should you arrive at either of the exams with an unacceptable calculator then it will be removed and you will be forced to complete the exam with paper and pencil only. It is your responsibility to ensure that you have an approved calculator for the exam. [See the homepage for PSYO 271 on Canvas for pictures of acceptable calculators like the one here.]



PRE-REQUISITES:

One of PSYO 111, PSYC 111 and one of PSYO 121, PSYC 121. Registration in the Psychology Majors program [B.A. or B.Sc.] and completion of PSYO 270 [or equivalent].

Under some circumstances, students who do not have these prerequisites may be admitted to the course. Students without the required pre-requisites who do not obtain permission from me may not be given credit for the course. In all cases, students who complete courses without prerequisites are not exempt from having to complete the prerequisite courses at some later date if such courses are required for the degree program or entry into other courses.

SEQUEL COURSES

Students in the Honours Psychology programs [both B.A. & B.Sc.] are required to take two more research methods / statistics courses as part of their programs. To be admitted to the first course in the series [i.e., PSYO 372], students must attain a minimum grade of 80% in this course and also in PSYO 270; to get into PSYO 373, students will need a minimum of 76% in PSYO 372.

Entry into PSYO 372 will be based on academic performance in Psychology courses: We will initially have everyone interested in PSYO 372 go on a waitlist. We will then rank order applicants based on their Psychology weighted average. Entry will depend on the number of seats we ultimately decide to open, but currently we expect there to be 35 openings. Entry into PSYO 373 is also limited by space.

If you are completing a Major, you are **not** required to take any more stats/methods courses, but are advised that these courses would be helpful if you are planning to attend graduate studies in psychology or related social sciences. Taking the PSYO 372/373 will keep your options open for doing an Honours degree at a later date. There is a provision for students to return to the University and upgrade their Major in Psychology to an Honours in Psychology by taking the Honours thesis and additional psychology credits. If you already have PSYO 372/373, this can be done in one academic year; if not, it will likely take two academic years. Entry into these courses is limited and does **not** guarantee admissions to the Honours programs.

LATE/MISSED ASSIGNMENTS & EXAMS

Points for graded components may not be made up. All assignments are due before the start time of class on the due date. **There is a three-day [3] grace period on each graded component, up to a maximum of three [3] times—no questions asked, but you need to request that grace period each time.** Unless granted an extension, you will receive a score of zero after using the grace period three [3] times. If you anticipate a problem meeting a deadline, you can also contact me by email to request an extension. If, at the end of the grace period, your work has not been submitted, you must meet with me within three [3] days to discuss the situation and set a schedule for completion or receive a zero.

In-class examinations **must** be written during the designated times; no alternative exam will be available. You need to contact me if you miss the Midterm Exam. Students who miss the Midterm Exam for legitimate reasons governed by UBC's Academic Concession Policy will have the marks from that Midterm Exam shifted to the cumulative Final Exam.

[See <http://www.calendar.ubc.ca/Okanagan/index.cfm?tree=3,48,0,0>]

FINAL EXAMINATIONS

The examination period for Term 2 of Winter 2021–22 is April 14–29; Saturday and Sunday exams are possible. Students are permitted to apply for out-of-time final examinations only if they are representing the University, the province, or the country in a competition or performance; serving in the Canadian military; observing a religious rite; working to support themselves or their family; or caring for a family member. This option is also available in the case of examination clashes and hardships (three or more formal examinations scheduled within a 27-hr [new] inclusive period) or unforeseen events. Unforeseen events include (but may not be

limited to) the following: ill health or other personal challenges that arise during a term and changes in the requirements of an ongoing job. Exams are to be written based on the Kelowna time zone.

Students who miss, or plan to miss the Final Exam, **must** consult the office of the Associate Dean, Curriculum and Student Affairs and follow the University's policies on out-of-time exams. See <https://fass.cms.ok.ubc.ca/wp-content/uploads/sites/131/2020/06/Out-of-time-examination-FASS.pdf>

Further information on Academic Concession can be found under Policies and Regulation in the *Okanagan Academic Calendar* <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,48,0,0>

INCLUSIVE LEARNING ENVIRONMENTS

In this class, we will work together to develop a learning community that is inclusive and respectful. Our diversity may be reflected by differences in race, skin colour, culture, age, religion, sexual orientation, socioeconomic background, and a myriad of other social identities and life experiences. The goal of inclusiveness, in a diverse community, encourages and appreciates expressions of different ideas, opinions, and beliefs, so that conversations and interactions that could potentially be divisive turn instead into opportunities for intellectual and personal enrichment.

A dedication to inclusiveness requires respecting what others say, their right to say it, and the thoughtful consideration of others' communication. Both speaking up and listening are valuable tools for furthering thoughtful, enlightening dialogue. Respecting one another's individual differences is critical in transforming a collection of diverse individuals into an inclusive, collaborative and excellent learning community. Our core commitment shapes our core expectation for behavior inside and outside of the classroom.

ACADEMIC INTEGRITY

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., academic misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating usually result in a failing grade or a mark of zero on the assignment or in the course. Careful records are kept in order to monitor and prevent recidivism.

A more detailed description of academic integrity, including the policies and procedures, may be found at <https://learningcommons.ubc.ca/academic-integrity/> and <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,54,111,959>

Just to be clear, students who do not do their own work are violating the principle of academic

integrity. It should be obvious that we are operating on the basis of mutual, personal trust. I am expecting you to act ethically, just as you are expecting me to do the same. **If you have any questions about how academic integrity applies to this course, please talk to me.**

iClicker activities fall under the provisions of our campus academic integrity policy. Students must **not** engage in academic misconduct while participating in iClicker activities. This includes, but is not limited to

- Checking in while not physically in class
- Having another student check you into class
- Answering polling questions while not physically in class
- Looking at other students' devices while answering anonymous polling
- Using more than one iClicker remote or account at a time

Any student found to be in violation of these rules will lose their iClicker points for the entire term and may be reported to the Dean for student misconduct.

DISABILITY RESOURCES:

If you require disability related accommodations to meet the course objectives please contact the Coordinator of Disability Resources located in the Student Development and Advising area of the Student Services building. For more information about Disability Resources or about academic accommodations please visit the following website:

<http://students.ok.ubc.ca/drc/welcome.html>

UBC OKANAGAN EQUITY AND INCLUSION OFFICE

Through leadership, vision, and collaborative action, the Equity & Inclusion Office (EIO) develops action strategies in support of efforts to embed equity and inclusion in the daily operations across the campus. The EIO provides education and training from cultivating respectful, inclusive spaces and communities to understanding unconscious/implicit bias and its operation within in campus environments. UBC Policy 3 prohibits discrimination and harassment on the basis of BC's *Human Rights Code*. UBC Okanagan is a place where every student, staff, and faculty member should be able to study and work in an environment that is free from human rights-based discrimination and harassment. UBC prohibits discrimination and harassment on the basis of the following grounds: age, ancestry, colour, family status, marital status, physical or mental disability, place of origin, political belief, race, religion, sex, sexual orientation, or unrelated criminal conviction. If you require assistance related to an issue of equity, educational programs, discrimination, or harassment please contact the EIO.

UNC 216 250.807.9291

email: equity.ubco@ubc.ca

Web: www.equity.ok.ubc.ca

HEALTH & WELLNESS

At UBC Okanagan health services to students are provided by Health and Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus. If you require assistance with your

health, please contact Health and Wellness for more information or to book an appointment.

UNC 337 250.807.9270

email: healthwellness.okanagan@ubc.ca

Web: www.students.ok.ubc.ca/health-wellness

STUDENT LEARNING HUB

The Student Learning Hub is your go-to resource for **free** learning support—now **online** and flexible to meet your remote learning needs! The Hub welcomes undergraduate students from all disciplines and years to access a range of supports that include **tutoring in math, sciences, languages, and writing**, as well as **dedicated learning support** to help you develop skills and strategies for **academic success**. Don't wait—successful learners access support early and often. For more information, visit students.ok.ubc.ca/hub or contact learning.hub@ubc.ca.

OFFICE OF THE OMBUDSPERSON FOR STUDENTS

The mandate of the Ombuds Office is to ensure that students are treated fairly in every aspect of their university life. The office is a safe and confidential place where students can get assistance and guidance on existing resources and processes, and help in resolving conflicts related to fairness issues. If you require assistance, please contact the Office of the Ombudsperson: ombuds.office@ubc.ca | 604-822-6149 www.ombudsoffice.ubc.ca

SAFEWALK

Don't want to walk alone at night? Not too sure how to get somewhere on campus?

Call Safewalk at 250-807-8076. For more information, see:

<http://security.ok.ubc.ca/welcome.html>

USEFUL CONTACTS**THESE ARE ALL UBC NUMBERS SO THEY START WITH 250-80****Very Important Numbers**

First Aid / Emergency	78111
Security (non-emergency)	79236
IT Services Helpdesk	79000

Contacts for Students

Marla MacDonald, Psychology Secretary	79258	ART 321
Trudy Kavanagh, Associate Dean [Students]	78754	ASC 449

Places to Refer Students

Psychology Program Advisors		
Jan Cioe	78732	ASC 285
Academic Advising	79100	UNC 207
Disability Resource Centre	79263	UNC 227
Psychology Course Union		ART281
Math and Science Centre		UNC 201
Writing and Research Centre	79185	LIB 237
Health and Wellness	79270	UNC 337
Equity Office	79291	FIP 302
Safewalk	78076	

Useful People to Talk To

Cindy Bourne, Co-ordinator, Learning Centre	78065	UNC 325H
Janine Hirtz, e-Learning Support (Canvas)	79133	SCI 200
Liz Hilliard, Manager, Campus Life	79012	UNC 329B
Terina Mailer, Senior Academic Advisor	78726	UNC 207D

Unit #	Week	Date	Readings	Topic
1	1	Jan 10	R1 Q due 22.01.16	Introduction – Course outline; nature of science and basic concepts from PSYO270.
1		12	R2 & R3 Q due 22.01.16	Nature of measurement; scales of measurement. Measurement error.
1	2	17	R4 & R5 Q due 22.01.23	Graphs & frequency distributions
		??	R0	Algebra review – We will be conducted via Zoom; it will be recorded & uploaded to Canvas
1		19	R6 & R7 Q due 22.01.23	Graphs & frequency distributions [rest]. Summation signs.
2	3	24	R8 [due 22.01.26] [see 1.6.2 in R5]	Descriptive statistics: Measures of central tendency. <u>BRING YOUR CALCULATOR TO CLASS FOR CLICKER MARKS</u>
2		26	R9 & R10	Descriptive statistics: Measures of variability.
2	4	31	R11 [due 21.02.02]	Resistant indicators. Percentile points.
2		Feb 2	R12	Percentile ranks.
3	5	7	R13	Effects of scale change. z scores. Standard normal distribution.
3		9	--	Application of standard normal curve problems.
4	6	14	R14	Probability theory. Application to statistics. Sampling distribution of means & other distributions. Central limit theorem [not on Midterm exam].
		16	R15	Inferential statistics: populations & samples. Introduction to hypothesis testing, probability, & sampling distributions [not on Midterm exam].
	7	21-25		MIDTERM BREAK: No classes

	8	28	--	Midterm – All material to Feb. 9th [Units 1-3]
4		Mar 2	[review R15]	Strategy for experimental inferences. z test for true mean.
4	9	7	R16	Statistical decisions: type I & II error. Power. Directional & non-directional tests.
4		9	R17	The t distribution; t test for true mean.
4	10	14	--	Midterm – Review exam results
4		16	R18	Difference between means t test, independent-samples t .
4	11	21	R19	Correlated t / paired-samples t .
4		23	R20	Regression: Linear regression; regression line; standard error of estimate. [Last day to withdraw yourself with a W: March 18]
5	12	28	R21, R22	Correlation: Pearson product moment correlation coefficient. Properties of r .
5		30	R23	Factors that change r . Causality and correlation. Inferences about correlations.
5	13	Apr 4	R24 [see also R15]	Effect size and interval estimation: Limitations of hypothesis testing; indices of effect size; interval estimation.
		6	R25	F test; One-way ANOVA; factorial ANOVA
		11	--	Review [if time]
		14-29		Final Exams – NOTE: Saturday & Sunday exams are possible. ALL MATERIAL TO DATE in 2.5-hr format.