
ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

COURSE INFORMATION

Course Title	Course Code Number	Credit Value
Gambling and Decision Making	PSYC 335	3

PREREQUISITES

Either (a) PSYC 100 or (b) all of PSYC 101, PSYC 102.

COREQUISITES

None

CONTACTS

Course Instructor	Contact Details	Office Location	Office Hours
Luke Clark	luke.clark@psych.ubc.ca	CIRS building on West Mall, 4 th floor - room 4342B	I will be available for brief discussions with students after class. Office hours Fridays 1-2pm at my office.

OTHER INSTRUCTIONAL STAFF

The TA for this course is Mario Ferrari (email ferrari@psych.ubc.ca); Mario is a PhD student in the Clinical Psychology Graduate Program, studying the cognitive and biological mechanisms of habits in gambling behaviour. His office hours will be Wednesdays, 1:30-2:30pm in the Kenny building, room 3504 (2136 West Mall).

You may contact the TA or the Instructor in person or by email. In correspondence, please feel free to refer to me as 'Dr Clark' or 'Prof Clark'. Please be judicious in your use of email: if you have more than 2 questions, your best option is to visit in person, in office hours.

We are fortunate to have some additional guest lecturers contributing to the course: Dr Gerald Thomas is the Director for Alcohol and Gambling Policy at the BC Ministry of Health, and he will contribute 3 classes on gambling policy, and Dr Terri-Lynn MacKay is a clinical psychologist at the UBC Counselling Service, who will give 2 classes on clinical aspects of addiction/problem gambling treatment.

COURSE STRUCTURE

This course will study gambling behaviour as a lens for examining the psychology of decision-making and the brain mechanisms that support risky choice. Gambling is a ubiquitous form of entertainment that

becomes harmful for a minority of people. In British Columbia, around three quarters of the population report past-year gambling, and BC receives over 2% of its total provincial revenue from gambling, which is higher than the revenue from alcohol and tobacco products combined. Approximately 3-4% of the population show some of the signs of problem gambling, but this subset are estimated to generate around a quarter of the gambling revenue in the province.

Two questions dominate the course. First, what does the existence and popularity of gambling tell us about human decision-making? Second, how does gambling become pathological for some people, and how should society respond to these harms? This multi-disciplinary course will combine approaches from cognitive psychology, neuroscience, and clinical psychology, with relevant work from economics and public health.

Lectures are on Mondays, Wednesdays, Fridays at 12 noon in Buchanan A 201.

LEARNING ACTIVITIES

The use will follow a traditional lecturing format that will be supported by the Set Readings (see Learning Materials below); I will make slide handouts available before each class. I encourage students to take notes in class. I encourage further participation by asking and answering questions in class, and using the Canvas discussion threads.

The purpose of the classes is to cover core material in the *Schedule of Topics* (below). Classes will include some discussion of the Set Readings. Please note the date for which each Set Reading is due in the *Schedule of Topics*. On those dates, students should have read the paper prior to class, and be prepared to ask and answer questions regarding the Set Reading.

LEARNING MATERIALS

There is no textbook for this course. Rather, lecture content will be supported by Set Readings (see pg 8), which will be available for download from Canvas. The purpose of the Set Readings is three-fold: 1) to help you to prepare for class and extend your knowledge of material covered in class, ii) to introduce you to primary literature on gambling, which will in turn 3) equip you for the Written Assignment and preparing for the longer questions on the Final exam. On the Multiple Choice Questions in the Midterm and Final, the Set Readings are only examinable to the level that they have been discussed in class (i.e. the lecture content on the readings *is* examinable).

All course materials will be available via Canvas www.canvas.ubc.ca. Lecture slides will be uploaded to Canvas, typically the evening before class. I will use Canvas to share links to extra material discussed in class, and you should use Canvas to submit the materials for the Written Assignment (see below). I encourage the use of Discussion Threads in Canvas, as it is very often the case that many students share some confusion or misunderstandings about the same topics. Note: if you need to send me a direct message, including any urgent correspondence about personal matters, please do not send the message within Canvas, as the reply functionality in Canvas is limited. Rather, send me a direct email (to luke.clark@psych.ubc.ca).

This class will make use of iClickers, for monitoring attendance (see Learning Assessment) and in-class polls. I will present at least one iClicker question per class – where possible in the middle section of the class -- in order to have a record of class attendance through the term. Note the 5% course grade from these iClicker data is only linked to your *participation* in the polls, not giving a correct answer. *Please register your iClicker in the Canvas site for this course* (for technical support on browser settings, see <https://lthub.ubc.ca/guides/clickers/>)

LEARNING OUTCOMES

By the end of this course, students will be able to:

- 1) demonstrate knowledge of concepts from the fields of decision-making, neuropsychology and addiction research that are relevant to understanding the psychology of gambling behaviour.
- 2) explain the assessment of gambling involvement, and the clinical status and diagnosis of problem gambling, as well as contemporary theories of problem gambling within an addictions framework.
- 3) consider the application of psychological research on gambling to informing public policy and government regulation of gambling ('responsible gambling').
- 4) evaluate primary literature in gambling research, including the design, key methods, and interpretation, as well as considering strengths and limitations of the research.
- 5) critically consider the media portrayal and public perceptions of gambling.
- 6) synthesize findings across disparate fields of research, in order to appreciate the interdisciplinary nature of gambling research.

ASSESSMENTS OF LEARNING

Evaluation:

• Attendance	5%	(from iClicker data)
• Midterm exam	30%	(assessing LO 1, 2, 4)
• Written assignment	20%	(assessing LO 4, 5)
• Final exam	45%	(assessing LO 1 – 6)

The Midterm will consist of multiple choice and short-answer questions, and will take place in the lecture theatre in place of a regular class. Short answer questions may involve drawing or labelling figures discussed in the classes. The Final Exam (2 hours) will be cumulative, with an emphasis on the second half of the course. The Final Exam will involve multiple choice questions, short answers and two longer questions (typically 2-3 handwritten sides each). An example longer question might be "How important is the form of gambling (e.g. poker, lotteries) in understanding the development of gambling problems?". These questions do not have a right or wrong answer, and students are encouraged to adopt and argue a position. For longer questions, high marks will also be awarded for critical thinking and synthesis of concepts across the course. I recognize that many students are apprehensive about the longer questions, and we will dedicate time in class to exam strategy and essay skills in preparing for the final. Sample questions will be available for both exams.

For course policies regarding in-term academic concessions, please refer to the relevant UBC calendar entry: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,329,0,0> . In cases where students miss the Midterm, please contact the Instructor as soon as possible (ideally before the exam). The Instructor will decide whether it is possible to offer a make-up test, or whether there are grounds for exemption. For any components that are exempted, the overall course grade will be calculated by re-weighted the available components using the same ratios listed above.

Attendance:

5% of course grade is available for regular attendance in class, as monitored through iClicker questions that will be linked to Canvas. I will award 0.25% per class taught by me (LC), up to a maximum of 5%. If I failure to set an iClicker question in any class, students will automatically receive the credit for that class. I will not ask guest lecturers to set iClicker questions, but the guest lecture content is nevertheless examinable and will be particularly helpful for the longer questions. The Orientation class, revision classes and midterm are not eligible for attendance credit. This means that you need to attend 20 of the 26 'content' classes taught by me to receive the full credit. This number is carefully chosen so that *students do not (and should not) email the instructor if they miss classes* through sickness, being late, etc. I will not reply to such emails.

Written assignment:

Students are asked to prepare a Report (maximum length 5 pages; 12 point Times New Roman, double spaced, 1 inch margins) on a newspaper article that describes a published research paper on gambling. An important component of the Written Assignment lies in searching for, and identifying, an appropriate article, an important transferable skill. We will discuss article selection further in class.

Selection of articles:

- i) The newspaper article must cite the research paper, in a way that the research paper can be located in its published form (e.g. on PubMed or GoogleScholar). The research paper must have been published in a journal. Government reports, prevalence surveys, blogposts, are not acceptable.
- ii) The research paper should be an original article, not a review or opinion piece. This means that the original article must have generated some new experimental data.
- iii) The research paper should have been published since 2010.
- iv) Newspaper articles should have been published (online) in a reputable news outlet e.g. New York Times, BBC, CBC, Vancouver Sun, Washington Post, Wall Street Journal, Globe and Mail, The Guardian. The article should have been written by a journalist; please **do not** choose articles on science websites like medicalxpress.com and ScienceDaily.com, which simply paraphrase university press releases. Part of the purpose of this exercise is for students to evaluate the journalist's interpretation of the research.
- v) The newspaper article and research paper should be relevant to the content of the course: the psychology of gambling, decision-making, problem gambling, behavioural addictions. I suggest you begin searching for suitable articles by entering terms like 'gambling' 'psychology' 'research' in search engines on some of the news sites.

Two examples of appropriate newspaper articles:

<https://vancouver.sun.com/news/local-news/therapy-takes-problem-gamblers-to-the-brink-and-back-in-virtual-reality-casinos> on Bouchard et al (2017) Using virtual reality in the treatment of Gambling Disorder: the development of a new tool for cognitive behavior therapy. *Frontiers in Psychiatry*: <https://doi.org/10.3389/fpsy.2017.00027>

http://www.washingtonpost.com/national/health-science/sounds-of-slot-machines-can-manipulate-players-researchers-say/2013/07/06/bfbd34ec-e3f8-11e2-80eb-3145e2994a55_story.html on Dixon et al (2013) The impact of sound in modern multiline video slot machine play. *Journal of Gambling Studies*; <https://doi.org/10.1007/s10899-013-9391-8>

(It is acceptable to choose these articles/papers for your own report, but be aware they are likely to be popular choices, and it may be easier to attain higher marks by identifying your own paper)

Here is an article that would **not** be approved, as there is no searchable publication linked to the story:

<http://www.theguardian.com/society/2014/feb/28/englands-poorest-spend-gambling-machines>

The written assignment is scheduled after the midterm exam (see dates in the Lecture and Reading Schedule). One lecture will give an overview of the objectives and requirements of the written assignment. The newspaper article and research paper should be uploaded (as separate pdfs) to Canvas by start of class on 1 Nov. The Instructor/TA will inform students of any ineligible articles by 6 Nov. Students are welcome to email the Instructor links to the articles ahead of the deadline to get provisional approval – if you do this, please take a copy (pdf or screenshot) of my reply and upload it as a third file with your article submission in Canvas. The deadline for the Report is start of class on Nov 13; once again, reports should be uploaded to Canvas.

Penalties for late submissions: 1 mark (of 20 max) will be deducted for each day late. This applies to both the submission of articles and submission of the Report. If there are extenuating circumstances, please discuss with the Instructor before the deadline.

Written Assignment: Marking

The Report should describe the objectives and findings of the journal paper, including limitations and weaknesses (for a more detailed marking scheme, see below). High marks can be awarded for reports on flawed research studies. The Report should describe the implications of the research for treatment, public policy, or gambling theory. Strong marks will be given for considering implications that are **not** discussed in the article or paper. The report should consider the accuracy of the media coverage (Does the news article ‘dumb down’ the findings? Does the journalist show evidence of a pro- or anti-gambling ‘agenda’? How might reporting influence public understanding of gambling, for better or worse?). The written assignment will be given a mark out of 20, with marks allocated for the following:

- accurately and concisely describing the objectives of the original research article (4 points)
- accurately and concisely describing the design of the original research article, with awareness of limitations (4 points)

- accurately and concisely describing the findings of the original research article (4 points)
- consideration of how the research informs either treatment, gambling theory, or public policy (4 points)
- discussion of the accuracy and objectivity of the media coverage (4 points).

The TA will offer review sessions for discussion of grading in office hours. Grade disputes will be passed to the Instructor for resolution.

Course grading

In order to reduce grade inflation and maintain equity across multiple course sections, all psychology courses are required to comply with departmental norms regarding grade distributions. According to departmental norms, **the mean grade in a 300-level class is 70 for a good class, 68 for an average class, and 66 for a weak class, with a standard deviation of 13.** Scaling may be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor or department. Grades are not official until they appear on a student's academic record. You will receive both a percent and a letter grade for this course. At UBC, your course percentage is converted according to the key below:

A+	90-100%	B+	76-79%	C+	64-67%	D	50-54%
A	85-89%	B	72-75%	C	60-63%	F	0-49%
A-	80-84%	B-	68-71%	C-	55-59%		

Remember, you are earning a degree at a highly reputable post-secondary institution. Therefore, criteria for success are high. The Faculty of Arts offers the following guidelines that broadly characterize the kind of work that is generally associated with the main grade ranges. These characteristics help to put the Psychology Department Grading Policies into context. Please note that adequate performance is in the C range, which is the typical class average.

A RANGE: *Exceptional Performance.* Strong evidence of original thinking; good organization in written work; capacity to analyze (i.e., break ideas down) and to synthesize (i.e., bring different ideas together in a coherent way); superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.

B RANGE: *Competent Performance.* Evidence of grasp of subject matter; some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.

D-C RANGE: *Adequate Performance.* Understanding of the subject matter; ability to develop solutions to simple problems in the material; acceptable but uninspired work; not seriously faulty but lacking style and vigor.

F RANGE: *Inadequate Performance.* Little or no evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

LEARNING ANALYTICS

This course will be using the following learning technologies: Canvas and iClickers. iClicker data will be used to monitor class attendance, for a component of the course grade. In individual cases, the Instructor may review Canvas participation to form an impression of a student's engagement with the course.

LEARNING RESOURCES

The Department of Psychology teaching office is situated in the main Kenny building on West Mall, and offers appointments during office hours.

UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on [the UBC Senate website](#).

OTHER COURSE POLICIES

Please mute your cell phones during class. Laptops are permitted but use of social media, Youtube etc during class is obviously discouraged.

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. Relevant to this course, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students' responses. Second, the Department subscribes to TurnItIn, a service designed to detect plagiarism. If a student has any questions as to whether or not their work is even a borderline case of plagiarism or academic misconduct, they are advised to consult the instructor.

In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student's transcript.

SET READINGS

- Blaszczynski A & Nower L (2002) A pathways model of problem and pathological gambling. *Addiction* 97:487–499.
- Clark L (2016) Decision-making in Gambling Disorder: understanding behavioural addictions. In: *Decision Neuroscience*. J.-C. Dreher & L.K. Tremblay (eds). Elsevier.
- Drummond A & Sauer JD (2018) Video game loot boxes are psychologically akin to gambling. *Nat Hum Behav* 2:530–532.
- Fortune EE & Goodie AS (2012) Cognitive distortions as a component and treatment focus of pathological gambling: A review. *Psychol Addict Behav* 26:298–310.
- Heather N (2018) Rethinking addiction. *Psychologist* Jan:23–28.
- Hodgins DC, Stea JN & Grant JE (2011) Gambling disorders. *Lancet* 378:1874–1884.
- Kable JW & Glimcher PW (2009) The Neurobiology of Decision: Consensus and Controversy. *Neuron* 63:733–745.
- Ladouceur R, Shaffer HJ, Blaszczynski A & Shaffer P (2017) Responsible gambling: a synthesis of the empirical evidence. *Addict Res Theory* 25:225–235.
- Ladouceur R & Walker M (1996) A cognitive perspective on gambling. In: *Trends in Cognitive and Behavioural Therapies*. P.M. Salkovskis (ed). John Wiley & Sons: Hove, U.K. pp. 89–120.
- Lilienfeld S & Lynn S (2015) Clinical Decision Making. In: *The Encyclopedia of Clinical Psychology*. R.L. Cautin & S.O. Lilienfeld (eds). Wiley & Sons. pp. 1–13.
- Lower the Stakes: A Public Health Approach to Gambling in British Columbia (Provincial Health Officer's 2009 Annual Report) (2013) BC Ministry of Health, Victoria, BC.
- Pickles A (2016) There's no such thing as a natural-born gambler. The Conversation. Available at: <https://theconversation.com/theres-no-such-thing-as-a-natural-born-gambler-57899>.
- Province of BC (2015) *A Plan for Public Health and Gambling in British Columbia*. Victoria, BC.
- Yücel M, Carter A, Harrigan K, van Holst RJ & Livingstone C (2018) Hooked on gambling: a problem of human or machine design? *The Lancet Psychiatry* 5:20–21.

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Students are permitted to record classes – please confirm this with the Instructor and inform Guest Lecturers on the day.

SCHEDULE OF TOPICS

#	Date	Day	Topic	Set Reading
1	4 Sep	W	Orientation	
2	6 Sep	F	Gambling: Definitions	(Drummond & Sauer 2018)
3	9 Sep	M	Gambling: Culture & History	(Pickles 2016)
4	11 Sep	W	Foundations 1: Decision Making	(Lilienfeld & Lynn 2015)
5	13 Sep	F		
6	16 Sep	M		
7	18 Sep	W	Foundations 2: Neuropsychology	(Kable & Glimcher 2009)
8	20 Sep	F		
9	23 Sep	M		
10	25 Sep	W	BioPsychoSocial Model (T-LM)	
11	27 Sep	F	Foundations 3: Addiction	(Heather 2018)
12	30 Sept	M		
13	2 Oct	W		
14	4 Oct	F	Problem Gambling: Diagnosis, Epidemiology, Assessment	(Hodgins <i>et al.</i> 2011)
15	7 Oct	M	Gambling Policy in Canada and BC (GT)	(Lower the Stakes, pg 1-18, 71-73)
16	9 Oct	W	Problem Gambling (cont.)	
17	11 Oct	F	Revision Class	
18	14 Oct	M	NO CLASS - THANKSGIVING	
19	16 Oct	W	MIDTERM	
20	18 Oct	F	Theories of Problem Gambling (info on written assignment)	(Blaszczynski & Nower 2002)
21	21 Oct	M		
22	23 Oct	W	Gambling and Gaming (GB)	
23	25 Oct	F	Treatment of Addictions (T-LM)	

24	28 Oct	M	Arousal and Conditioning	(Ladouceur & Walker 1996)
25	30 Oct	W	Cognitive Distortions	(Clark 2016)
26	1 Nov	F	Illusion of Control (submit articles)	
27	4 Nov	M	Gambler's Fallacy	
28	6 Nov	W	Near-Misses	
29	8 Nov	F	Rage against the machines	(Yücel <i>et al.</i> 2018)
30	11 Nov	M	NO CLASS – REMEMBRANCE DAY	
31	13 Nov	W	Treatment of Problem Gambling (submit written assignment)	(Fortune & Goodie 2012)
32	15 Nov	F	Gambling Harms & Prevention	(Ladouceur <i>et al.</i> 2017)
33	18 Nov	M		
34	20 Nov	W	Responsible Gambling	
35	22 Nov	F	Gambling Policy in BC: Current Status (GT)	(Lower the Stakes pg 65-68; A Plan for Public Health and Gambling in BC (2015))
36	25 Nov	M	Under the influence: Alcohol & Gambling	
37	27 Nov	W	Exam Strategy (MF)	
38	29 Nov	F	Revision Class	
	TBA		FINAL EXAMINATION	

GT = Dr Gerald Thomas, T-LM = Dr Terri-Lynn Mackay, GB = Gabriel Brooks, MF = Mario Ferrari.

If changes occur to this schedule, students will be informed via Canvas Announcements.

Version: August 30, 2019