

**ACKNOWLEDGEMENT**

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UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (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.

**PANDEMIC CHANGES**

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Given the COVID-19 pandemic, the University of British Columbia has directed all UBC programs to redesign courses to be delivered online.

**COURSE INFORMATION**

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

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**PREREQUISITES**

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

**CONTACTS**

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Course Instructor	Contact Details	Class Location	Office Hours
Luke Clark	<a href="mailto:luke.clark@psych.ubc.ca">luke.clark@psych.ubc.ca</a>	Canvas	Office hours Wednesdays 1-2pm (via Zoom within Canvas)

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Welcome to Psyc 335! This will be the sixth time I have taught this course since I joined UBC in 2014, but it will be the first time I have taught a fully online course. It is obvious to say that the COVID-19 pandemic has created many changes and challenges for higher education. This term is the start of a new academic year where we have had time to prepare for virtual content and delivery, but nevertheless I expect to make a few mistakes, and I would encourage us all to approach the online classroom with compassion, flexibility, and respect for others. As students, I will try to engage you in class decisions as much as I am able. I'm a Professor in the Department of Psychology at UBC and I'm also the Director of the Centre for Gambling Research ([cgr.psych.ubc.ca](http://cgr.psych.ubc.ca)). I went to University in the UK and I was the first person from my family to go to University. I am committed to helping 'first-generation' students navigate the university system at UBC, including pathways into graduate study. When I'm not thinking about gambling and decision-making, I have two kids, I enjoy hiking and camping in the summer, I play squash and I like old movies and crime novels. I'm on twitter (personal: [@LukeClark01](https://twitter.com/LukeClark01) and gambling-related: [@CGR\\_UBC](https://twitter.com/CGR_UBC)) and actually twitter is a great resource for this course as a way of keeping up with the fast-moving world of gambling policy and research.

**OTHER INSTRUCTIONAL STAFF**

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The TA for this course is Xiaolei Deng. Xiaolei is a PhD student in the Clinical Psychology, working in the Centre for Gambling Research and supervised by Dr Clark. His PhD research is looking at disordered

gambling in online gambling ‘big data’ using a dataset from the BCLC’s PlayNow platform. Xiaolei will not hold regular office hours this term because of the increased marking load arising from the Discussion Threads and Set Reading quizzes, but you may ask to meet with him over Zoom by appointment (xdeng@psych.ubc.ca).

We expect to have 1 or 2 additional guest lecturers in the course, including Dr Gerald Thomas (Director for Alcohol and Gambling Policy at the BC Ministry of Health) to discuss gambling policy.

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 attend office hours.

*Note: if you need to send me a direct message, including any urgent correspondence about personal matters, **please do not use the message function within Canvas**, as the reply functionality in Canvas is limited. I will reply to your message faster if you send me a direct email to [luke.clark@psych.ubc.ca](mailto:luke.clark@psych.ubc.ca).*

## COURSE STRUCTURE

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This is an online course. Classes are timetabled for Mondays, Wednesdays, Fridays at 12 noon, and will be delivered through a combination of synchronous (i.e. real-time classes with discussion) and asynchronous (e.g. pre-recorded materials and self-directed study) methods. The course will combine a traditional lecturing format, active Q&A and discussion, with set readings and participation in online discussion forums on key topics.

## COURSE DESCRIPTION

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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 harmful for some people: how should we conceptualize these harms (e.g. as an ‘addiction’) and how should society respond to these harms? This multi-disciplinary course will combine approaches from cognitive psychology, neuroscience, and clinical psychology, alongside insights from economics and public health.

## LEARNING ACTIVITIES

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Classes will cover key concepts and core material, see *Course Schedule*. Classes will be supported by the Set Readings, and include content from the Set Readings. In a typical week, I will make two classes available as pre-recorded videos (i.e. ‘asynchronous’ teaching: students can watch / re-watch these classes whenever they choose). The third class will be delivered in real-time (‘synchronously’) via the Zoom tool within Canvas, for Q&A and discussion. These synchronous classes are labelled ‘Discussion

Class' in the *Course Schedule* and where possible they will be held on Fridays to conclude each topic and allow discussion of the earlier material. There will be some exceptions to the Friday rule, e.g. the welcome orientation class in week 1 will be a Zoom class on the Wednesday. I will use Canvas to post regular updates.

I will make slide handouts available before each class in Canvas, separately from the class video. I encourage students to take notes during class. This year, in modifying the course for online learning, part of the course grade will reflect regular engagement with online discussion threads and submitted quizzes on the Set Readings (see *Assessments of Learning*).

Timezone settings: in week 1, the Orientation Quiz will include questions about which time zones students are working from. Once I have that information, I will plan how to accommodate these students on test/exam days. If you need to re-locate to a different time zone during term time, you can let me know by email. If you are accessing Canvas from a different timezone, it is important to be aware that both your computer clock setting and the time zone setting in Canvas itself could influence your access to scheduled quizzes. Further guidance will be issued as it becomes available.

## LEARNING MATERIALS

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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 test. On the multiple choice questions and short answers that comprise the Midterms, the Set Readings are only examinable to the level that they have been discussed in class.

*Canvas:*

All course materials will be available via Canvas [www.canvas.ubc.ca](http://www.canvas.ubc.ca). There is a student's guide to Canvas on the 335 home page, plus a Canvas guide for Psychology students at [bit.ly/UBCPsychCanvas](https://bit.ly/UBCPsychCanvas) which you may find useful (e.g. as a refresher). Pre-recorded class videos and class slides will be uploaded to Canvas (Modules), typically the morning of class. All quizzes and exams will be posted as Canvas quizzes, and you should use Canvas to submit the materials for the Written Assignment (see below).

Synchronous classes will be delivered in Zoom within Canvas. These classes will also be recorded and posted to Canvas, for students who are unable to attend at the scheduled time (or for students who were present to re-watch). I will announce at the start of each Zoom class when I begin recording – if I do not make this announcement, please remind me somehow! For this course, it is entirely optional whether students wish to turn on audio or video during the live classes. You may use the chat functions to post questions. This course will not make use of students webcams for invigilation (e.g. Proctorio), so you can complete these course without a webcam or microphone if preferred.

Participant Credit is available for contributing posts on course content in our graded Canvas discussion threads. These posts can be on 1) links to news articles or research papers relevant to themes identified in class on a weekly basis, 2) thoughtful commentary (e.g. a summary, counter-argument, or alternative

perspective) on materials posted by other students. These discussions will also help you identify papers for the Written Assignment.

I also create some further Discussion Threads in Canvas for questions that are unrelated to course content, e.g. Q&A about the course structure. These will not be graded or contribute to the Participation Credit. If students email me questions relating to either course content or course structure that I feel will be relevant to other students, I will usually ask them to copy the question to the Discussion Threads.

### *Written Assignment*

For the Written Assignment, students will prepare a 5 page report on a newspaper article that describes an original research paper that is relevant to the course (e.g. gambling, gaming, behavioural addiction, biases in decision-making). An important component of the Written Assignment lies in searching for, and identifying, an appropriate article, which is a useful transferable skill. There is a deadline for submitting your articles around 10 days before the report itself is due. Your report should describe the objectives and findings of the research paper, but also consider the accuracy of the media coverage (e.g. evidence of an agenda, ‘dumbing down’ of science).

## **LEARNING OUTCOMES**

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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.
- 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**

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### *Evaluation:*

• Participation (Discussion Threads)	10%	(assessing LO 1, 3, 4, 5)
• Set Readings quizzes	10%	(assessing LO 1, 4)
• Midterm 1 Key Concepts quiz	20%	(assessing LO 1, 2, 4)
• Midterm 2 Key Concepts quiz	20%	(assessing LO 1, 2, 4)
• Written assignment	20%	(assessing LO 4, 5)
• Final test	20%	(assessing LO 1 – 6)

*Midterms and Final test:*

The Midterms will consist of multiple choice and short-answer questions. The Final test will comprise two longer questions (from a choice of 4), designed to test cumulative knowledge and synthesizing understanding across the course. Quiz settings can be adjusted in Canvas for students with time extensions or sitting the test from other time-zones.

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 argue a position, supported with scientific evidence, and consider weaknesses and counter-arguments. High marks will also be awarded for critical and/or independent thinking and synthesis of material across the course. Most students taking 335 are apprehensive about the longer questions, and we will dedicate time in class to exam strategy and essay skills, in helping you prepare for the final. Sample questions will be available.

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.

*Discussion Threads (Participation Credit):*

10 marks (10% course grade) are available for contributing posts on course content in the graded Canvas discussion threads. These will be moderated by the TA and Instructor. Posts can be 1) links to news articles or research papers relevant to class themes, 2) short commentary on those posts (posted as a threaded reply), noting an interesting point or observation in a posted article, a reference to some further research on the topic, or an alternative perspective. Relevant posts or comments will be awarded 1 mark each. Comments need not be lengthy, 2-3 lines is perfectly acceptable, but the mark will be withheld if the moderator can see that the article or a similar comment has already been posted. Students are reminded to be respectful of others' values and opinions. To best sustain these threads over the term, max 5 marks will be available from 11 Sept – 26 Oct, and 5 marks from 27 Oct – 4 Dec.

*Set Readings quizzes:*

Each of the 12 set readings will be accompanied by a short Canvas quiz. 1 mark is awarded per quiz up to a maximum of 10 marks. Individual quizzes are pass/fail. Students will receive Canvas announcements when each quiz becomes available, and you will generally have around one week to complete the reading and submit the quiz.

*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. We will discuss article selection 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. Preprint websites (e.g. BioArxiv, PsyArxiv, SSRN) are not acceptable as these articles have not been peer reviewed (we will discuss this in class). For the same reason, 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://vancouversun.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/bfb3d34ec-e3f8-11e2-80eb-3145e2994a55\\_story.html](http://www.washingtonpost.com/national/health-science/sounds-of-slot-machines-can-manipulate-players-researchers-say/2013/07/06/bfb3d34ec-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 in between the two midterm tests (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 end of day on Fri 23 Oct. 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 end of day on Mon 2 Nov; once again, reports should be uploaded to Canvas.

*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 30, 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).

Your breakdown of marks on the Written Assignment will be posted in Canvas. The TA will offer review sessions over Zoom for discussion of grading. Grade disagreements 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 classes are required to comply with departmental norms regarding grade distributions. **However, in the spirit of flexibility and compassion in light of COVID-19 and the associated pivoting to online teaching, those departmental norms have been adjusted upwards by 5% for only 2020W.** According to these adjusted norms, the average grade in 100- and 200-level Psychology classes will be 72 for an exceptionally strong class, 70 for an average class, and 68 for a weak class, with a standard deviation of 14. The corresponding figures for 300- and 400-level classes will be 75, 73, and 71, 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 an instructor or the 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, they convert according to the key below:

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

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#### LEARNING ANALYTICS

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This course will be using Canvas. Canvas records student activity (e.g. engagement with Discussion Threads, quiz submission times) and this information may be used by the Instructor to form an impression of a student's engagement with the course. These behavioural analytics can also reveal some instances of cheating.

### LEARNING RESOURCES

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

### UNIVERSITY POLICIES

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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

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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. Within Canvas, your activity is captured and Instructors are able to detect many instances of cheating from Canvas activity. Also 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. 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

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Blaszczynski, A., & Nower, L. (2002). A pathways model of problem and pathological gambling. *Addiction*, 97, 487–499. doi:10.1046/j.1360-0443.2002.00015.x

Deng, X., Lesch, T., & Clark, L. (2019). Applying data science to behavioral analysis of online gambling. *Current Addiction Reports*, 6(3), 159–164. doi:10.1007/s40429-019-00269-9

- Drummond, A., & Sauer, J. D. (2018). Video game loot boxes are psychologically akin to gambling. *Nature Human Behaviour*, 2, 530–532. doi:10.1038/s41562-018-0360-1
- Ejova, A., & Ohtsuka, K. (2020). Erroneous gambling-related beliefs emerge from broader beliefs during problem-solving: a critical review and classification scheme. *Thinking & Reasoning*, 26, 159–187. doi:10.1080/13546783.2019.1590233
- Heather, N. (2018). Rethinking addiction. *The Psychologist*, Jan, 23–28. Available at: <https://thepsychologist.bps.org.uk/volume-2018/january-2018/rethinking-addiction>
- Ji, L. J., McGeorge, K., Li, Y., Lee, A., & Zhang, Z. (2015). Culture and gambling fallacies. *SpringerPlus*, 4(1). doi:10.1186/s40064-015-1290-2
- Kable, J. W., & Glimcher, P. W. (2009). The Neurobiology of Decision: Consensus and Controversy. *Neuron*, 63(6), 733–745. doi:10.1016/j.neuron.2009.09.003
- Ladouceur, R., Shaffer, H. J., Blaszczynski, A., & Shaffer, P. (2017). Responsible gambling: a synthesis of the empirical evidence. *Addiction Research & Theory*, 25(3), 225–235. doi:10.1080/16066359.2016.1245294
- Limbrick-Oldfield, E. H., Mick, I., Cocks, R. E., McGonigle, J., Sharman, S., Goldstone, A. P., et al. (2017). Neural substrates of cue reactivity and craving in Gambling Disorder. *Translational psychiatry*, (7), e992. doi:10.1038/tp.2016.256
- 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.  
[https://www.academia.edu/5697812/Lower\\_the\\_stakes\\_A\\_public\\_health\\_approach\\_to\\_gambling\\_in\\_BC](https://www.academia.edu/5697812/Lower_the_stakes_A_public_health_approach_to_gambling_in_BC)
- Province of BC. (2015). *A Plan for Public Health and Gambling in British Columbia*. Victoria, BC.  
<https://www.gaming.gov.bc.ca/reports/docs/plan-rg-public-health-and-gambling-2015.pdf>
- Schonberg, T., Fox, C. R., & Poldrack, R. A. (2011). Mind the gap: bridging economic and naturalistic risk-taking with cognitive neuroscience. *Trends in Cognitive Sciences*, 15(1), 11–19. doi:10.1016/j.tics.2010.10.002

#### Copyright

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#### COURSE SCHEDULE (POSTED AS SEPARATE DOCUMENT)

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

Version: 8 Sept 2020