

Common Core Course

CCHU9060

Games: Play, Learning and Society

Course Description

Have you ever played games with your friends and family? Do you have rewards points on your credit cards? Have you ever thought what it means to “game” the system or have you studied “game theory”? Playing games is, and always has been, a basic attribute of humans at all stages of life and across all cultures. Games and their applications – such as My Starbucks Rewards, NikeiD and Facebook – have been used to enrich our lives in many different contexts, including business, education, and pleasure. However, games can also associate with negative consequences, such as addiction, which can greatly affect our health and social life. In this course, you will learn how to apply gamified e-learning system to motivate students in learning and develop their creativity as well as different teaching strategies to make in-class activities fun and meaningful.

Aims

This course will cover the theoretical and practical foundations of game application and its social consequences using design techniques that originate from the field of psychology and the study of motivation. You will:

- experience our gamified teaching style,
- explore various scenarios about playing/using games,
- recognize the psychological, social, economic, and educational benefits of game application,
- be aware of the potential harms and risks,
- understand how games are applied in different contexts, and
- critically evaluate game and gamification projects.

Pre-requisites and Co-requisites


There are no pre-requisites and co-requisites for this module.

Course Learning Outcomes


	<i>Course Learning Outcomes – On completing the course, students will be able to:</i>	<i>Alignment with the NEW Common Course Programme Learning Outcomes</i>	<i>Related Assessment Task(s)</i>
1	<i>Describe and explain the historical, societal and cultural significance of games in our society</i>	CC PLO: 1, 2	1,2,3
2	<i>Recognize the various ways in which games and their applications can be used to motivate others, foster interpersonal relationships, facilitate communications, as well as increase awareness of social and global issues and concerns.</i>	CC PLO: 1, 2, 3	1,2,3
3	<i>Analyze the impact of games within the individual and societal levels in modern society</i>	CC PLO: 1, 2	1,2,3
4	<i>Collaborate and coordinate with others, in tutorial meetings, and in a group project involving the use of design techniques and the consideration of moral and ethical issues</i>	CC PLO: 2, 3, 4	2

*Please refer to http://www.cdqa.hku.hk/doc/PLO2012/University/PLO_CCC.pdf for the new set of Common Core Programme Learning Outcomes (CC PLOs).

Course Facilitator

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Tutor / TA

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Study Load

<i>Activities</i>	<i>Number of hours</i>
Lectures	24
Tutorials	8
Seminars	4
Fieldwork/ Visits	4
Reading/ Self-study	40
Assessment: Report writing	25
Assessment: Presentation (including preparation)	35
Total:	140

Lectures Schedule

Course Period: 22 Jan 2020 – 29 Apr 2020

Day & Time: Wednesday, 2:30-4:20pm

Venue: MWT6, Meng Wah Complex, HKU

<i>Lecture No. Date</i>	<i>Session</i>	<i>Related Los*</i>
Lecture 1 <i>Jan 22</i>	<p>History and Development</p> <p>Topics:</p> <ul style="list-style-type: none"> ● Introduction to games <ul style="list-style-type: none"> ○ describe history, definition and categories of game ● Culture, gender and games <ul style="list-style-type: none"> ○ explain how culture and gender influence people's perception on and interaction with games ● Development of games <ul style="list-style-type: none"> ○ explain the application of games in different contexts ○ introduce design techniques, and the basic principles of games <p>Reading for the week:</p> <ul style="list-style-type: none"> ● Chapters 1, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2
No Lecture <i>Jan 29 (New Year's week)</i>	No lectures	
Lecture 2 <i>Feb 5</i>	<p>History and Development</p> <p>Topics:</p> <ul style="list-style-type: none"> ● Human brain on games <ul style="list-style-type: none"> ○ explains our neural responses to gameplay, in the context of motivation and emotion ● Psychology and motivation ● explain the benefits of a behavioural approach to game development, and identify risks and alternatives <p>Reading for the week:</p> <ul style="list-style-type: none"> ● Chapters 2, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2
Lecture 3 <i>Feb 12</i>	<p>Application and Impact on Individuals and Society</p> <p>Topics:</p> <ul style="list-style-type: none"> ● What are the applications of games? <p>A game-based workshop/talk by Amazon</p>	1,2,3,4

	<p>Reading for the week:</p> <ul style="list-style-type: none"> Chapters 3 – 4, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	
<p>Lecture 4 <i>Feb 19</i></p>	<p>Application and Impact on Individuals and Society</p> <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> What is game addiction? <p>Reading for the week:</p> <ul style="list-style-type: none"> Chapters 5 – 6, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders 	1,2,3,4
<p>Lecture 5 <i>Feb 26</i></p>	<p>Application and Impact on Individuals and Society</p> <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> Games in cognitive and behavioural development, particularly in children and the aging <p>Reading for the week:</p> <ul style="list-style-type: none"> Chapters 7 – 8, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2,3,4
<p>Lecture 6 <i>Mar 4</i></p>	<p>Application and Impact on Individuals and Society</p> <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> Motivation, engagement and education <p>A game-based workshop/talk by Skytree</p> <p>Reading for the week:</p> <ul style="list-style-type: none"> Chapters 9 – 10, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2,3,4
<p>No Lecture <i>Mar 11</i> <i>(Reading Week)</i></p>	<p>No Lecture</p>	
<p>Lecture 7 <i>Mar 18</i></p>	<p>Application and Impact on Individuals and Society</p> <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> Loyalty and business <p>Reading for the week:</p> <ul style="list-style-type: none"> Chapters 11 – 12, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2,3,4

Lecture 8 <i>Mar 25</i>	Application and Impact on Individuals and Society <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> ● Satisfaction, achievement and public services, such as healthcare and electronic consumption ● Communication and social media <p>Reading for the week:</p> <ul style="list-style-type: none"> ● Chapters 13 – 14, Adams, E. (2014). Fundamentals of game design (3rd Ed.). New Riders. 	1,2,3,4
Lecture 9 <i>Apr 1</i>	Application and Impact on Individuals and Society <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> ● Gamifying our daily lives <ul style="list-style-type: none"> ○ Share ideas on how to use design techniques to <ul style="list-style-type: none"> (i) Motivate people in the daily activities, and (ii) Communicate with people. <p>Game companies visit in Science Park</p> <ul style="list-style-type: none"> ● Students will visit a game company (Madhead) in Science Park to learn about game design, development, production and challenges 	1,2,3,4
Lecture 10 <i>Apr 8</i>	Application and Impact on Individuals and Society <p style="text-align: center;">Topics:</p> <ul style="list-style-type: none"> ● Other society or global issues <ul style="list-style-type: none"> ○ Discusses the limitations, concerns and dangers of playing/using games ○ Concludes with a look towards the future ○ Suggest preventative activities if possible 	1,2,3,4
No Lecture <i>Apr 15</i>	No lecture <ul style="list-style-type: none"> ● Work on group project presentation 	1,2,3,4
Lecture 11 <i>Apr 22</i>	Reflection and Evaluation <ul style="list-style-type: none"> ● Group project presentation Session 1 	4
Lecture 12 <i>Apr 29</i>	Reflection and Evaluation <ul style="list-style-type: none"> ● Group project presentation Session 2 	4

Tutorials Schedule

8 sessions x 1 hours (8 hours in total)

Session	Date	Weekday	Time	Venue
1	Feb 6	Thursday	Class A: 10:30am - 11:20am	Class A & B: KKLG110, K.K.Leung Building
2	Feb 13		Class B: 11:30am - 12:20am	
3	Feb 20		Class C: 2:30pm - 3:20pm	Class C: MB 151, Main Building
4	Feb 27		Class D: 3:30pm - 4:20pm	
5	Mar 5			Class D: MB 205, Main Building
6	Mar 19			
7	Mar 26			
8	Apr 2			

Participation

Students will be expected to participate in class by discussing course readings and complete in-class learning activities on Moodle. Students are also required to provide feedback to classmates regarding their presentations.

Assessment Tasks

		<i>Details of Assignment</i>	<i>Value</i>	<i>Related CLO</i>
1	Book Battle	Based on the textbook, students are required to create and answer peer's quiz on Moodle. The battle starts in January and ends in March - Create question [group] (5%) - Answer quizzes [individual] (35%)	40%	CC PLO: 1, 2, 3
2	Field trip	Each student is required to write a short reflection for the trip in 150 – 300 words.	5%	CC PLO: 1, 2
3	Group Project	Each group will design, develop and evaluate a game or gamification project. Peer-review on members' contribution and group presentation will be conducted. - Project proposal (5%) - Game prototype (10%) - Video and presentation (15%) - Report (10%) - Peer evaluation (5%)	45%	CC PLO: 3, 4
4	Participation	In class/Moodle and outside class participations	10%	CC PLO: 3, 4

Key References and Resources

Required Reading (hard copy & e-copy available in the HKU library)

Adams, E. (2014). *Fundamentals of game design* (3rd ed.). New Riders.

- Student may read the book in 2 modes:

	Location	Loan policy
Two print copies	Main Library Reserve	One for 3 hours, One for 2 days
Electronic copy	ebook link	-

Key References:

Adams, E. (2014). *Fundamentals of game design* (3rd ed.). New Riders. [ebook link](#)

Kapp, K. M. (2012). *The gamification of learning and instruction game-based methods and strategies for training and education*. Pfeiffer. [ebook link](#)

McGonigal, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. Penguin. [ebook link](#)

Recommended Reading (available in the HKU library)

Bishop, J. (2014). *Gamification for human factors integration: social, education, and psychological issues*. IGI Global.

Bissell, T. (2011). *Extra lives: Why video games matter*. Vintage.

Bogost, I. (2011). *How to do things with videogames (electronic mediations)*. Univ Of Minnesota Press.

Boinodiris, P., Fingar, P. & Grant, T. (2014). *Serious games for business: using gamification to fully engage customers, employees and partners*. Meghan-Kiffer Press.

Borowski, B. (2014). *Gamification - engage customers in your business: The hottest marketing trend in 2014*. CreateSpace Independent Publishing Platform.

Brezovszky, B., McMullen, J., Veermans, K., Hannula-Sormunen, M. M., Rodríguez-Aflecht, G., Pongsakdi, N., & Lehtinen, E. (2019). Effects of a mathematics game-based learning environment on primary school students' adaptive number knowledge. *Computers & Education, 128*, 63-74.

Burke, B. (2014). *Gamify: How gamification motivates people to do extraordinary things*. Routledge.

Chang, C. C., Liang, C., Chou, P. N., & Lin, G. Y. (2017). Is game-based learning better in flow experience and various types of cognitive load than non-game-based learning? Perspective from multimedia and media richness. *Computers in Human Behavior, 71*, 218-227.

Chen, Z. H., Lu, H. D., & Chou, C. Y. (2019). Using game-based negotiation mechanism to enhance students' goal setting and regulation. *Computers & Education, 129*, 71-81.

Chou, Y. K. (2015). *Actionable gamification - beyond points, badges, and leaderboards*. Octalysis Media.

Collins, C. (2015). *Gamification: Playing for profits: A book of sales games and motivational tools*. CreateSpace Independent Publishing Platform.

Denmeade, N. (2015). *Gamification with moodle: Use game elements in moodle courses to build learner resilience and motivation*. Packt Publishing.

Doan, A. P., Strickland, B. & Gentile, D. A. (2012). *Hooked on games: the lure and cost of video games and internet addiction*. FEP International, Incorporated.

Dymek, M. & Zackariasson, P. (2016). *The business of gamification: A critical analysis*. Routledge.

- Ederly, D. (2009). *Changing the game: How video games are transforming the future of business*. Upper Saddle River.
- Egenfeldt-Nielsen, S. (2011). *Serious games in education*. Aarhus University Press.
- Fencott, C., Lockyer, M., Clay, J., & Massey, P. (2012). *Game invaders: The theory and understanding of computer games*. Wiley-IEEE Computer Society.
- Gee, J. (2007). *What video games have to teach us about learning and literacy* (2nd ed.). New York: Palgrave Macmillan.
- Gee, J. (2013). *Good video games and good learning: collected essays on video games, learning and literacy* (2nd ed.). Peter Lang Inc., International Academic Publishers.
- Gibson, D., Aldrich, C., & Prensky, M. (2007). *Games and simulations in online learning: research and development frameworks*. Hershey: Information Science Pub.
- Hanse, E. (2016). *Game on!: Video game history from pong and pac-man to mario, minecraft, and more*. Feiwei & Friends.
- Harrison, J. (2015). *Mastering the game: What video games can teach us about success in life*. CreateSpace Independent Publishing Platform.
- Harrison, L. (2014). *Gamification for business*. Motivational Press.
- Herger, M. (2014). *Enterprise gamification: Engaging people by letting them have fun*. CreateSpace Independent Publishing Platform.
- Holmes, D. (2012). *A mind forever voyaging: A history of storytelling in video games*. CreateSpace Independent Publishing Platform.
- Hugos, M. (2012). *Enterprise games: Using game mechanics to build a better business*. O'Reilly Media.
- Hwa, S. P. (2018). Pedagogical Change in Mathematics Learning: Harnessing the Power of Digital Game-Based Learning. *Journal of Educational Technology & Society*, 21(4), 259-276.
- Isbister, K. (2016). *How games move us: Emotion by design (playful thinking)*. The MIT Press.
- Kapp, K. (2013). *The gamification of learning and instruction fieldbook: Ideas into practice*. Pfeiffer.
- Kowert, R., & Quandt, T. (Eds.). (2015). *The video game debate: Unravelling the physical, social, and psychological effects of video games*. Routledge.
- Kumar, J. & Herger, M. (2013). *Gamification at work: Designing engaging business software*. The Interaction Design Foundation
- Kwan, A.C.M., Chu, S.K.W., Hong, A.W.L., Tam, F., Lee, G.M.Y. & Mellker, R. (2015). Making Smart Choices: A Serious Game for Sex Education for Young Adolescents. *International Journal of Game Based Learning*, 5(1), 18-30.
- Law, V., & Chen, C. H. (2016). Promoting science learning in game-based learning with question prompts and feedback. *Computers & Education*, 103, 134-143.
- Lin, C. J., Hwang, G. J., Fu, Q. K., & Chen, J. F. (2018). A Flipped Contextual Game-Based Learning Approach to Enhancing EFL Students' English Business Writing Performance and Reflective Behaviors. *Journal of Educational Technology & Society*, 21(3), 117-131.
- Lukosch, H., Kurapati, S., Groen, D., & Verbraeck, A. (2017). Gender and Cultural Differences in Game-Based Learning Experiences. *Electronic Journal of e-Learning*, 15(4), 310-319.
- Madigan, J. (2015). *Getting gamers: The psychology of video games and their impact on the people who play them*. Rowman & Littlefield Publishers.
- McGonigal, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. Penguin.
- McGonigal, J. (2015). *Super better: A revolutionary approach to getting stronger, happier, braver, and more resilient*. Penguin Press 2015.
- Melissinos, C. (2012). *The art of video games: From pac-man to mass effect*. Welcome Books.
- Narayanan, A. (2014). *Gamification for employee engagement*. Impact Publishing.

- Niman, N. (2014). *The gamification of higher education: Developing a game-based business strategy in a disrupted marketplace*. Palgrave Macmillan.
- Novák, D. (2016). *Handbook of research on holistic perspectives in gamification for clinical practice*. IGI Global.
- Owen, P. (2013). *How gamification can help your business engage in sustainability*. Greenleaf.
- Paharia, R. (2013). *Loyalty 3.0: how to revolutionize customer and employee engagement with big data and gamification*. McGraw-Hill Education.
- Pitarch, R. C. (2018). An Approach to Digital Game-based Learning: Video-games Principles and Applications in Foreign Language Learning. *Journal of Language Teaching and Research*, 9(6), 1147-1159.
- Qian, M., & Clark, K. R. (2016). Game-based Learning and 21st century skills: A review of recent research. *Computers in Human Behavior*, 63, 50-58.
- Radoff, J. (2011). *Game on: Energize your business with social media games*. Wiley.
- Rogers, R. (2016) *How video games impact players: The pitfalls and benefits of a gaming society*. Lexington Books.
- Routledge, H. (2016). *Why games are good for business: How to leverage the power of serious games, gamification and simulations*. Palgrave Macmillan.
- Ruggill, J., McAllister, K., Nichols, R. & Kaufman, R. (2016). *Inside the video game industry: Game developers talk about the business of play*. Routledge.
- Shaffer, D. (2006). *How computer games help children learn*. Palgrave Macmillan.
- Thompson, K. (2015). *A systematic guide to game-based learning (GBL) in organizational teams: Transform performance through experiential learning, social learning and team dynamics*. CreateSpace Independent Publishing Platform.
- Vu, P., & Feinstein, S. (2017). An Exploratory Multiple Case Study about Using Game-Based Learning in STEM Classrooms. *International Journal of Research in Education and Science*, 3(2), 582-588.
- Werbach, K. & Hunter, D. (2012). *For the win: How game thinking can revolutionize your business*. Wharton Digital Press.
- Witt, C. (2016). *Gaming to innovate - the innovation game: How to leverage gamification to unleash the breakthrough beast in your organization and create an unstoppable innovative culture*. CreateSpace Independent Publishing Platform.
- Wu, W. W. Y., Chu, S. K. W., Chan, H., Wong, J., Tse, S. K., Tavares, N., & Mok, S. (2014, April 15-17). *Strengthening students' reading comprehension ability (both Chinese and English) through developing children's literature equiz bank on the cloud*. The 19th International Education & Technology Conference. Hong Kong. [Link](#)
- Zichermann, G. (2013). *The gamification revolution: How leaders leverage game mechanics to crush the competition*. McGraw-Hill Education.

Recommended Website(s)

- Video Game Addiction No Fun
<http://www.webmd.com/mental-health/addiction/features/video-game-addiction-no-fun>
- Video Game Addiction Symptoms, Causes and Effects
<http://www.psychguides.com/guides/video-game-addiction-symptoms-causes-and-effects/>
- Gamification on Coursera
<https://www.coursera.org/learn/gamification>

- Serious games
<https://seriousgamessociety.org/>
- Game lab
<http://www.gamelab.com/>
- Education arcade
<https://education.mit.edu/>

Referencing

You should list all sources you used for your assignments by the American Psychological Association (APA) referencing format (<http://www.apastyle.org/>). The details and examples of APA formatting and style can be found at <http://owl.english.purdue.edu/owl/resource/560/01/>. You may use endnote to create your references.

Academic Conduct

Plagiarism (<http://www.rss.hku.hk/plagiarism/page2s.htm>) involves the use of quotations without quotation marks, the use of quotations without indication of the source, the use of another's idea without acknowledging the source, the submission of a paper, report, project, or class assignment (any portion of such) prepared by another person, or incorrect paraphrasing.

Any student who fails due to plagiarism may be referred to the University Disciplinary Committee, which may then recommend discontinuation. Plagiarism is a serious matter. If you have any doubts about whether or not your use of sources constitutes plagiarism, ask your lecturer or course coordinator.

The students are required to use the tool Turnitin to check your assignment for correct scholarly practice in citing other's work. You will be provided with a "class ID" and "password" to enable you to check your assignments via appropriate "class" in Turnitin. Further details about Turnitin and how it works are obtainable from <http://www.turnitin.com>.