



# LGST/OPIM 240: Gamification for Business

Spring 2014, 1 cu

Jon M. Huntsman Hall, Room F92

## Overview

Gamification is the application of digital game design techniques to business and other domains. Video games are the dominant entertainment form of our time because they are powerful tools for motivating behavior. Many companies today are incorporating gamification in areas as varied as marketing, human resources management, productivity enhancement, sustainability, training, health and wellness, innovation, and customer engagement. This course will examine the mechanisms of gamification and provide an understanding of their effective use. No particular technical skills, gaming experience, prior coursework, or knowledge about the games industry are required.

As described below, the course itself will incorporate game elements such as points, badges, guilds, and challenges for a unique and (hopefully) engaging experience. Who says learning can't be fun?

## Learning Objectives

After taking this course, you should:

1. Understand what gamification is and appreciate why organizations are using it.
2. Be familiar with the fundamentals of game design and motivational psychology.
3. Have a deeper understanding of what makes some experiences seem fun or engaging.
4. Be able to develop a gamified solution to a business problem using a design process.
5. Recognize the limitations and risks of gamification.

## Instructor

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## TA

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## Course Canvas Website

<https://wharton.instructure.com/courses/1225104>

## Texts and Other Materials

- KEVIN WERBACH AND DANIEL HUNTER, FOR THE WIN: HOW GAME THINKING CAN REVOLUTIONIZE YOUR BUSINESS (Wharton Digital Press, 2012)
- Additional readings and videos will be available on Canvas. There are no materials on Study.net.

## Assessment

As described below, there will be a number of graded individual and group activities throughout the semester, leading up to a final project due the last week of class. There is no final exam.

**Expectations**

I invite you to join me on an exploration of a cutting-edge topic, using novel technological and educational methods. Although gamification is a burgeoning area of business practice, this is one of the few courses at any university in the world that focuses on its application. LGST/OPIM 240 is an experimental course at Wharton, meaning that it must be approved next year to be offered on a permanent basis. Your feedback and course evaluations will be an important factor in this decision.

Learning is a two-way street. I put effort and energy into this course to make it both useful and enjoyable; I expect your commitment as well. Be prepared for extensive use of online components and group collaboration. You will find the course more rewarding if you take initiative, participate actively, and come up with creative approaches. Don't be shy about offering me feedback on what's working well or poorly from your perspective.

Devices such as laptops, smartphones, and tablets are welcome in class; in fact, they are required for in-class quizzes, design activities, and real-time polls. It should go without saying, though, that they shouldn't be used during that period for non-class purposes. Our time together is limited, and we will all benefit from your full attention.

Oh, and don't forget that serious learning should be fun. If it's not, at least one of us is doing something wrong.

**Course Structure**

This is a "flipped" course (also referred to as SAIL at Penn). The content that would normally be delivered in class through lectures will be provided through short video segments (typically 5-10 minutes), originally developed for the Coursera massive open online version of this course. The videos will all be available on the Canvas site.

In many cases, there are also readings and additional videos covering the material in more detail. These materials will help you be more successful in the class and deepen your learning, but they will not be required on specific dates or tested on. The chapters from my book, *For the Win*, are similar to the material in the Coursera videos, so they should be particularly valuable if you find you process information better by reading than watching.

You will have the opportunity to discuss and ask questions about the videos in class, but I will not be lecturing on those topics. I will expect you to be familiar with them in the relevant class, or to tell me if concepts are unclear. I will not take attendance. However, there will often be short writing activities or quizzes in class that will contribute to your course grade.

One major reason for adopting this approach is that it frees up in-person class time from basic content delivery. You can get the lectures in my MOOC, but only here can we do interactive exercises, simulations, case studies, discussions, and games which will greatly deepen your understanding of the topic. The best way to learn gamification is to do gamification.

**Ethics and Collaboration**

Individual assignments must be your own work. You are welcome to collaborate and share ideas with other students (in the class or otherwise) in developing your answers, but the material you submit should be your words alone. Group assignments and activities obviously should be done collaboratively. You are welcome to look at any outside materials that you find relevant, including those from prior sessions of this course or the Coursera Gamification MOOC.

### It's a Course... and also a Game

In a typical course, you are marked down for every point you miss. You have no choice in what activities you complete. You receive feedback a few times (midterm, paper, final), and then get a grade telling you how you did. Games work differently. You start with zero points, work your way up to mastery based on your choices, and get constant feedback. When you think about it, this makes sense. Learning is about developing competencies based on your skills and interests.

In this course, you will “level up” to your final grade. Each assignment is worth a certain number of points. Some are tied to specific classes on the syllabus; others are not. Some require you to complete other activities before you can submit them. You will have some flexibility in which assignments you choose to complete, based on your interests. No individual activity is strictly required.

There are no exams as such, because the goal of the course is for you to develop the skills and knowledge described in the Learning Objectives above. That doesn't, however, mean the course is easy! You will have many activities to complete, some of which are challenging and many of which require a time commitment. Your grade should reflect the effort you put into the course.

The grading system looks like this:

Level	Grade	Points Required
12	FTW!	1,337,000
11	A+	120,000
10	A	100,000
9	A-	90,000
8	B+	80,000
7	B	70,000
6	B-	60,000
5	C	40,000
4	D	20,000
3	Leeroy Jenkins	10,000
2	N00b	1,111
1	Wipe	0

(And no, the terms at the top and bottom aren't real. You can't get “Leeroy Jenkins” to appear on your transcript, so don't try.)

### Grading

All graded assignments will use the following evaluation system:

#### Satisfactory

Meets the requirements for the assignment and reflects an appropriate level of effort.  
Receives full credit.

#### Satisfactory but late

Would be satisfactory, but was submitted up to one week after the deadline (without a prior extension). Receives half credit.

Unsatisfactory

Fails to meet the requirements of the assignment, does not reflect sufficient effort, or is submitted more than a week after the deadline (without a prior extension). Receives no credit, but can be resubmitted at any time for half credit.

Bonus!

An unusually good or creative response. Receives full credit, and also earns a {Bonus!} badge (see below for details).

BONUS!!!

For work that is extraordinarily good or creative. Provides additional points beyond the number specified. I expect this grade will be awarded rarely... although I would be thrilled if you surprise me with your dedication and brilliance!

**Assignment List**

These are the course activities which can earn you points toward your final grade.

*Note: I reserve the right to adjust activities or point values during the course of the semester if necessary, but doing so will never reduce a student's grade.*

Class-Related

- 1/27 Casual game: What could a business learn [5,000 points]
- 2/5 Chore Wars [5,000 points]
- 2/12 Group: Sports card game description and rules [10,000 points]
- 2/24 Elements in casual games and elsewhere [5,000 points]
- 3/3 Casual game: motivation techniques [5,000 points]
- 3/17 Mindbloom [5,000 points]
- 3/26 Bartle Test [5,000 points]
- 4/9 FoldIt [5,000 points]
- 4/16 Summary of proposed project [2,500 points]
- 4/21 One prototypical player for your system [2,500 points]
- 4/23 Group: Description and evolution of your system [5,000 points]
- 4/28 Group: 5-minute final presentation [20,000 points]
- 4/30 Self-evaluation of your guild's project [10,000 points]

Other Activities

*Unless otherwise noted, you may complete any of these activities in writing, through a screencast (recorded audio over a presentation), or by making a video. To receive a “satisfactory” grade, the other kinds of submissions should reflect the same level of effort and depth as a written submission.*

Game Master Trouble Ticket [2,500 points]

Submit a private reflection on a course assignment or structural element to the professor. Describe how it could be improved. *Prerequisite: complete Unit 0.*

Improve the gamification of the course [5,000 points]

How effective are the gamified aspects of the course (the point system, the badges, etc.)? How could they be made better? What other aspects could they include? This should be a deeper analysis than the Game Master Trouble Ticket. *Prerequisite: complete Unit 4.*

Bogost Response [2,500 points]

Read either of Ian Bogost’s critical posts on gamification:

Persuasive Games: Exploitationware (<http://bit.ly/18LschT>) or Gamification is Bullshit (<http://bit.ly/18Lsg0Y>). Write a response that either agrees with and expands on his criticism, or disagrees and rebuts it. *Prerequisite: complete Unit 3.*

PuG Presentation [5,000 points]

Form a pickup group (PuG) of 2-3 people, who may not also be in your guild. Register your PuG in Canvas under the “People” menu. Pick a topic to do a 10-minute presentation to the class. It must be a subject that isn’t already on the syllabus. Could be a case study of a service that we aren’t covering, analysis of a technique or concept, or anything else. Submit your topic to Prof. Werbach along with 3 proposed dates, as these must be scheduled around other course activities.

Guild Comparison [5,000 points]

For any of the group design activities we did in class, pick one guild’s project was better than yours, and one that you thought was worse. Explain why you picked them.

Gamification Example Classification [5,000 points]

Describe how you would develop a database of gamification case studies. Specifically, what attributes would you use to organize the examples – e.g. what game elements they use, industry, or some other categories. Apply your classification to at least five examples. Explain why organizing case studies using those variables would help someone understand trends and lessons about gamification.

USAID Proposal [10,000 points]

Develop a response to the Request for Information issued by the US Agency for International Development (USAID) Kenya Transition Initiative. (This is a real program.) Your response should explain how you would create a gamified solution for this, what it would look like, and how it would address the mission of the initiative. (You don’t need to answer the specific questions in the RFI about capabilities and so forth.) *Prerequisite: Example Classification.*

Choose Your Own Adventure [points TBD]

Want to do an assignment that isn’t listed here? Make one up! You can propose your own graded activity, subject to review and approval by the professor. Submit the following via Canvas:

- Describe the requirements of the assignment
- Explain how it is a serious and valuable learning activity
- How is it different than the existing assignments?
- When is it due?
- How many points is it worth?

## Achievements

In addition to the assignments that contribute to your grade, there are also non-graded Achievements that you can earn. These will be reflected in badges on your profile page in Canvas.

As we'll see, achievements are a common gamification technique. In this course, they are intended to add a bit of fun and motivation independent of your grade, and to give you additional first-hand experience with gamification. *The achievements are completely optional.* Some are related to graded assignments, but you receive no points or other consideration towards your grade for the badges themselves. That being said, I expect that achievements will correlate with success in the course, and wouldn't you want to be on top of the badge leaderboard?

- **{RTFM}** – Review this syllabus in its entirety. *[Self-submit. Deadline 1/22.]*
- **{Unit Master x}** – Complete (with a grade of Satisfactory or better) all of the assignments under one of the six Units in the schedule below. *[Automatically tracked.]*
- **{Course Master}** – Earn the Unit Master achievement for all six Units. *[Automatically tracked.]*
- **{Off the Beaten Path}** – Complete (with a grade of Satisfactory or better) at least one of the “Other Activities” not tied to a specific class in the syllabus. *[Automatically tracked.]*
- **{Chatterbox x}** – Comment on the discussion forum about the videos or other materials associated with a class session. *[Automatically tracked. Levels for commenting on 1/5/10/20 sessions, with rolling deadlines.]*
- **{Perky Pug}** – Form a pickup group (PuG) and complete a PuG presentation. *[Self-submit.]*
- **{Bonus!}** – Earn the grade of Bonus! on an assignment. *[Self-submit.]*
- **{BONUS!!!}** – Earn the grade of BONUS!!! on an assignment. *[Self-submit.]*
- **{For the Win x}** – Read one of the chapters the book *For the Win* listed as optional reading in the schedule. *[Self-submit, with verification.]*
- **{LOL}** – Make Prof. Werbach laugh out loud. *[Self-submit.]*
- **{People's Choice}** – For the guild the receives the most “favorite” post-its in one of the a design review activities in class. *[Self-submit, by guild.]*
- **{Endgame}** – Complete your final project with a pitch submission. *[Self-submit, by guild.]*

**Schedule**

*Unless noted, the deadlines for assignments is the start time of the class they are listed underneath. You are expected to review videos or readings not listed as “optional” prior to the class where they are listed. The videos are stored on an unlisted YouTube channel and individually hyperlinked.*

**UNIT 0: ONBOARDING**

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**1/15 Ready Player One**

*Course goals/expectations. Let's play a game. Guild assignments.  
The Easiest Game Design Exercise Ever (Really).*

Assignment: First, review this syllabus. (If you're reading this, it's a good sign.)

Second, spend at least 30 minutes playing a casual online or mobile game, such as Words With Friends, Farmville 2, Candy Crush Saga, Bejeweled Blitz, Angry Birds, Plants vs. Zombies 2, Draw Something, Clash of Clans, or a similar game that you haven't played before. (Yes, your professor is telling you to play a videogame. Got a problem with that?) Think about the following questions: Is the game fun? If so, why? If not, why not? What could a business learn from this game?

Optional Video: Werbach, All I Really Need to Know I Learned in WoW,  
<http://bit.ly/nZorXA>

**1/22 Gamification Basics**

*Icebreaker. Definitions of gamification. How organizations are gamifying.  
Guild assignment feedback.*

Assignment: Think about the way you were put into guilds in the first class, and how effective you feel your guild will be based on your first meeting. Identify one good and one bad aspect of the process. Can you come up with a better way to do this process? Be prepared to discuss your views in class. (To be done individually.)

Group Assignment: Talk with the members of your guild (in person or by phone/Skype/Hangout/etc.). Discuss what you hope to get out of this course. As a group, come up with one written question about gamification that you submit to share with the class.

Watch: Videos [1.3](#), [1.4](#), [1.5](#), [1.6](#), [2.1](#)

Optional Readings: For the Win, Chapter 1 (Getting Into the Game)  
Werbach, [\(Re\)defining Gamification: A Process Approach](#)

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UNIT 1: GAMES

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1/27 **Why Games Matter**

*What's a game? What games can teach us. The games industry. Guild assignments 2.0. Casual game reflections.*

Assignment: Play the casual online game you picked prior to the first class again. (If you missed the first class, see above for instructions.) With your newfound knowledge of gamification, answer the following question on Canvas: What could a business learn from this game? [5,000 points]

Watch: Videos [2.2](#), [2.3](#), [2.4](#), [2.5](#)

Optional video: McGonigal TED Talk: <http://bit.ly/aDmAYY>

1/29 **Anatomy of Fun**

*What makes games engaging. Unpacking "fun." The Coin Game. The second easiest game design exercise ever.*

Assignment: Sign up for a free account on Chore Wars (<http://www.chorewars.com/>). Use the service over the next week, ideally with your roommates or friends, enough to form an opinion of how effective it is. *Note: assignment to be completed Wednesday 2/5.*

Watch: Videos [3.5](#), [3.6](#)

Optional Reading: Lazzaro, Why We Play Games: <http://bit.ly/LRAZu>

Optional Video: Bogost, Fun: <http://vimeo.com/74943170>

2/3 **Game Thinking**

*Analyzing problems like a game designer. Basic patterns in game design. Fixing Tic Tac Toe.*

Watch: Videos [3.1](#), [3.2](#), [3.3](#), [3.4](#)

Optional Reading: For the Win, Chapter 2 (Game Thinking)



**2/5 Making Things “Game-Like”**

*Chore Wars discussion. Social networking game design exercise.*

Assignment: Write a post on Canvas analyzing your experience with Chore Wars. Did the site motivate you to perform chores? Why or why not? How would you suggest improving the site? [5,000 points]

Optional Video: Schell, Design Outside the Box, <http://bit.ly/aXgPTC>

**2/10 OK, Let’s Make a Real Game**

*Sports card game design exercise.*

Read (required): The Design of Paint the Line (<http://bit.ly/1iHEpbm>)

Watch: Penny Arcade’s Paint the Line ECG: Red Tide intro video, how to play, and rules at <http://kck.st/IPJxtQ>

**2/12 Now Let’s Make a Better Game**

*SCG presentations and design gallery. Wrap-up discussion on games.*

Group Assignment: Working with your guild, refine the sports card game that you created in the last class. You should bring in a diagram of the game board (as appropriate), as well as a list of rules. [10,000 points]

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**UNIT 2: GAME ELEMENTS**

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**2/17 Presidents Day: NO CLASS**

Assignment: Sign up for a free account for the Mindbloom Life Game (<https://www.mindbloom.com/lifegame>). Use the service over the next month, enough to form an opinion about its effectiveness and design.  
*Note: assignment to be completed Wednesday 3/17.*

Optional video: Video [4.5](#)

**2/19 Deconstructing Games**

*From games to gamification. The concept of game elements.  
Board game shuffle.*

Watch: Videos [4.1](#), [4.2](#), [4.3](#), [4.4](#)

Optional Reading: For the Win, Chapter 4 (Gamification Toolkit)  
[Serious Gamification, Appendix](#)

**2/24 Gamifying with Elements**

*How elements relate to games. Elements comparison discussion. Playgen cards exercise.*

Assignment: Play a causal game, in the same category as you played for the first assignment. However, this time pick a different game. Identify three game elements it uses. For each, find an example of something that is not a game, but uses the same element. Write a post on Canvas comparing how the elements are used by each. [5,000 points]

Optional Reading: Boardgame Geek list of game mechanics (<http://bit.ly/18LtBoz>)

**2/26 PBLs**

*Points, badges, and leaderboards. Foursquare case. Foursquare debate.*

Assignment: Read the [Foursquare case](#) (on Canvas) and answer the questions at the end. Be prepared to discuss your answers in class.

**UNIT 3: MOTIVATION****3/3 Psychology and Motivation**

*Gamification as motivational design. What motivates you? Operant conditioning.*

Assignment: Play a casual online game. It should not be the game you played for the first assignment or the assignment last week. Write a post on Canvas analyzing the techniques the game uses to motivate players to participate, keep playing, and/or generate revenues for the game developer. [5,000 points]

Watch: Videos [5.1](#), [5.2](#), [5.3](#)

Optional Video: Chatfield TED Talk, <http://bit.ly/bu5LLU>

Optional Reading: For the Win, Chapter 3 (The Rules of Motivation)  
Dockterman, The Science Behind Our Addiction (<http://ti.me/18LtedN>)

**3/5 Self-Determination Theory**

*Intrinsic and extrinsic motivation. Crowding-out effects. Guild PvP challenge!*

Watch: Videos [6.2](#), [6.3](#), [6.4](#), [6.5](#)

Optional Readings: Zichermann, post+comments (<http://bit.ly/tG3Qet>)  
Ryan & Deci, [Intrinsic & Extrinsic Motivations](#) (on Canvas)

**3/10, 3/12 Spring Break: NO CLASS**

**3/17 Motivating Behavior Change**

*Mindbloom reflection. Motivation design exercise.*

Assignment: Write a post on Canvas analyzing your experience with Mindbloom. Did it motivate you to change your behavior, or improve your life? Why or why not? How would you suggest improving the site? [5,000 points]

Watch: Video [10.4](#)

Optional Reading: Fogg, A Behavior Model for Persuasive Design (<http://bit.ly/18Lrgde>)  
Hanlon, Then a Miracle Occurred (<http://bit.ly/18nS08a>)

**3/19 Motivation or Manipulation?**

*Ethical and legal concerns about gamification.*

Watch: Videos [11.2](#), [11.4](#), [11.5](#)

Optional Reading: Werbach, [More Than Just a Game: Ethics of Gamification](#)

**UNIT 4: GAMIFICATION DESIGN****3/24 Design Thinking**

*Gamification as a design practice. The wallet exercise.*

Watch: Video [7.1](#)

**3/26 Player Types**

*Bartle's MMOG model. Other frameworks. Player modeling.*

Assignment: Complete the Bartle Test (<http://bit.ly/1bNU4lQ>). Note: this site may be slow to load or require multiple attempts. Keep trying. Post on Canvas, discussing whether your results are an accurate reflection of your personality, and giving examples that are consistent or inconsistent with the results. [5,000 points]

Watch: Video [7.3](#)

Optional Readings: Yee, A Model of Player Motivations (<http://bit.ly/18Lt6uV>)  
Kim, Social Engagement: Who's Playing? (<http://bit.ly/18LsYvf>)

**3/31 Design Choices**

*Achievement design. The Wharton Writing Challenge as gamification.*

Watch: Videos [8.2](#), [8.3](#), [8.4](#)

Optional Readings: Blair, The Cake is Not a Lie (<http://bit.ly/18Ltolh>)

**4/2 Gamification Design Framework**

*6D design exercise.*

Watch: Videos [7.2](#), [7.4](#), [7.5](#)

Optional Reading: For the Win, Chapter 5 (Game Changer: 6 Steps to Gamification)

**4/7 Avoiding Epic Fails**

*Playtest and review gamified system designs.*

Watch: Video [11.1](#)

Optional Reading: For the Win, Chapter 6 (Epic Fails)

**4/9 Crowdsourcing, Prizes, and Virtual Goods**

*FoldIt discussion.*

Assignment: Sign up for a free account and download FoldIt (<http://fold.it/>). Play it enough to develop an opinion. Post on Canvas about its effectiveness in motivating you to participate. Also, discuss how FoldIt is similar to and different from the casual social games you played for earlier assignments. [5,000 points]

Watch: Videos [12.2](#), [12.3](#), [12.4](#)

Optional Reading: Applied Gamification, [Serious Games](#) & [Virtual Economies](#) chapters

**4/14 Passover: NO CLASS**

Assignment: Start thinking individually about organizations or activities that your guild could gamify for the final project. Your “client” should be either on campus, local, or a company that you have access to, so that you can conduct interviews and understand their needs.

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UNIT 5: BOSS FIGHT

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**4/16 Project Definition**

*Introduction to final project. Identify your “client” and questions to ask.  
Define business objectives and target behaviors. Feedback session.*

Assignment: Submit via Canvas and bring to class (on paper or your laptop/tablet) a one-page summary of your proposed gamification project. (To be done individually.) [2,500 points]

**4/21 Players and Prototyping**

*Create a model player. Define and prototype activity cycles. Feedback session 2.*

Assignment: Using research and interviews, develop your idea in greater detail. Post on Canvas a description of one prototypical player for your system. (To be done individually, but coordinated with your guild.) [2,500 points]

**4/23 Iteration!**

*Playtest revised prototype.*

Group Assignment: Based on the feedback you received, refine your prototype. Post to Canvas an overview document that describes your gamified system, and how it has evolved through the development process. [5,000 points]

**4/28 Pitch Day**

*Present your project as if you were pitching to the head of the company or organization.  
Take questions from the class.*

Group Assignment: Finalize your project. Create a 5-minute presentation that you will deliver either live in Ignite format (15 slides x 20 seconds, auto-advancing) or pre-recorded as a screencast, video, or animation. Be creative! Prepare to answer questions about it. [20,000 points]

**4/30 Post-Mortem**

*A “post-mortem” review session is a standard element of the game design process.  
We will discuss what worked well in the course, and what could be improved.*

Assignment: Submit an individual self-evaluation of your guild’s project. Would this system be effective in the real world? What were the best and worst aspects of the design? What challenges would there be in implementing it? What were your most significant personal contributions to the group effort? *Note: due at 11:59pm on Sunday May 4.* [10,000 points]