**Competitive eSports: Super Smash Bros. Melee**

Student Taught Course, Winter 2018

Student Instructor: Lokbondo (Loko) Kung (Computer Science, Class of 2018)
Sponsoring Professor: Professor Antonio Rangel

**Course Description: 3 units (0-2-1); Pass/Fail only. (Limited Seating: 12)**

The electronic sports (eSports) or professional video gaming industry is booming, projected to reach global revenues of $696M and a viewership base over 385M in 2017. eSports made its first debut in South Korea, while global uptake has been slower; recently in 2013 the U.S. began recognizing pro-gamers as “professional athletes” for a P1 Visa, and there are ongoing discussions for eSports inclusion in the 2024 Olympic Games. In this course, we will focus on competitive eSports and how it has redefined this generation’s entertainment through example. Using Super Smash Bros. Melee (SSBM), a game released in 2001 which has developed a rich history, large viewer base, and an abundance of online video content (>1M Youtube videos), we will see what makes eSports “entertaining.”

The goal of this course is to introduce eSports and its competitive aspects to amateurs, aspiring spectators, and those who have never heard of it. Class time will be split between learning and understanding eSports as a whole and how they are becoming so popular; and SSBM, where we will (i) learn about the rich history of the game’s competitive scene, (ii) analyze the mentality of pro-gamers, (iii) practice the basics of competitive gameplay, and (iv) experience the stresses of a competitive match in a friendly class tournament. Homework will supplement class materials through analysis of recorded gameplay, online videos, and documentaries. By the end of the course, students will have developed the skills of a competent entry-level competitor and gained a deeper appreciation for the world of eSports.

Requirements: No equipment or prior experience necessary

**Grading:**

- **Class participation/attendance 50%**
  - Since students’ are not expected to practice outside of class (equipment is hard to come by), participation is mandatory.
  - One unexcused absence is allowed, but past that, it will be a 10% decrease in grade for each additional unexcused absence.

- **Homework 20%**
  - Homework will consist of video watching and self analysis.

- **Mini-Quizzes 15%**
- Combination of in-class and take-home quizzes.

- **Final Tournament 15%**
  - Students’ will be expected to show up for a class friendly tournament. If students’ are unable to attend, potential substitutes can be negotiated.
  - Tournament results will not affect grade. Participation is the only requirement.

- **A passing grade will be at least 70% in the class.**

**General Class Structure:**

In general, classes will be structured in the following categories assuming a two hour continuous class per week:

1. **Logistics:** Book-keeping announcements that are necessary. (1-5 min)
2. **Lectures:** Lectures about eSports and any topic relevant to the rise of eSports or the industry as a whole. (30-45 min)
3. **Materials:** Demonstrations and explanations about particular concepts of SSBM. (20-30 min)
4. **Techniques:** Focus techniques for the week in SSBM. (Analogous to dribbling, passing, and shooting in basketball.) (10-15 min)
5. **Practices:** Hands-on practice of techniques and concepts given throughout the course. (45-60 min)
6. **Watch:** The series “The Smash Brothers” assigned each week will be accompanied by an online quiz. (These will be homework assignments.)

**Weekly Schedule:**

**Week 1: “Introduction to eSports and SSBM”**

**Class: “The Game is Not Over”**
- Introduction video (First 5-10 min):
  https://www.youtube.com/watch?v=R0h54-Ng8LA
- Logistics: grading scheme, attendance expectation, time-to-meet (ideally a continuous 1.5 - 2 hour block per week), equipment suggestions/rentals.
- Materials: Notation and naming conventions, character list and moves (Part 1).
- Practices: Sandbox period to explore the game if time permits.

**Homework:**
- Watch: “The Smash Brothers: Episode 1 - Show Me Your Moves” (20:34) -
  https://www.youtube.com/watch?v=NSf2mgkRm7Q&list=PLoUHkRwnRH-IXbZfwIgiEN8eXm0j6DttKM&index=1
- Quiz: Mini-quiz on character list and moves (Part 1).
- Research: Think about which character you would be interested in playing.

Additional Resources:
- Video: “The Game Is Not Over 10 Year Anniversary” - https://www.youtube.com/watch?v=XTnGADJ3qRI
- Video: “The Game Is Not Over Pt. 2 15 Year Anniversary” - https://www.youtube.com/watch?v=R0h54-Ng8LA&t=277s

Week 2: “Negative Stigma of eSports Compared to Music”
Class: “Choose Your Character”
- Lectures: “Negative Stigma Involving eSports”
- Lectures: “Comparing eSports to Music”
- Materials: Character list and moves (Part 2), basic competitive scene information, tournament rules for singles.
- Techniques: rolling, shielding, shield-grabbing, spot-dodging.
- Practices: Time devoted to sandbox playing to determine individual characters to focus on.

Homework:
- Watch: “The Smash Brothers: Episode 2 - No Johns” (27:02) - https://www.youtube.com/watch?v=oRlc4jEfwsc&index=2&list=PLoUHkRwnRH-I XbZfwlgiEN8eXmoj6DtKM
- Quiz: Mini-quiz on character list and moves (Part 2).
- Research: Finalize decision on personal characters.

Additional Resources:

Week 3: “Mastering a Skill, eSport or Not”
Class: “Tech Skillz”
- Lectures: “Playing a Game vs. Targeted Learning”
- Lectures: “Competitive eSports Changing the Lazy-Numbing Gaming Stereotypes”
- Logistics: Submit legal character decisions¹, organize class into pairs of similar characters for coach-buddy system.
- Materials: Character list and moves (Part 3), tournament rules for doubles
- Techniques: tech-ing, short-hopping.

¹ List of acceptable characters TBD based on class voting.
- Practices: Coach-paired sparring or restricted sparring for singles, pay attention to rolling and tech-ing habits, sandbox doubles to experience how different the game is with 4 people.

**Homework:**
- Watch: “The Smash Brothers: Episode 3 - Don’t Get Hit” (28:23) - https://www.youtube.com/watch?v=qEibecSOTvQ&index=3&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoj6DtkM
- Quiz: Mini-quiz on character list and moves (Part 3).
- Research: Find a favorite high-level player and combo video of chosen character.

**Week 4: “Social Game Theory in eSports Gaming”**

**Class: “Don’t Get Hit”**
- Lectures: “Game Theory in eSports Gaming”
- Lectures: “Social Aspect of eSports - Entertainment and Activity”
- Materials: Spacing, overshooting and undershooting attacks, stage control, mix-ups.
- Quiz: In class quiz on character list and moves (Part 1-3).
- Techniques: dash-dancing, fast-falling, edge-hogging, recovering.
- Practices: Coach-paired sparring singles, pay attention to any type of habit or predictability. Rotation on recorded setup.

**Homework:**
- Watch: “The Smash Brothers: Episode 4 - The King of Smash” (28:15) - https://www.youtube.com/watch?v=cEdi-HslFuk&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoj6DtkM&index=4
- Watch: Recording of self matches. Analyze and write down own patterns and habits, and opponent’s patterns and habits.

**Additional Resources:**
- Video: “Dash Dancing” - https://www.youtube.com/watch?v=vG3hIE1-oAk
- Video: “How to Fast Fall” - https://www.youtube.com/watch?v=VfMV4POaOl0

**Week 5: “Inside the Mind of Pro-Gamers”**

**Class: “Mind Games”**
- Logistics: Introduce instructor paired teammates, optimized for fairness.
- Lectures: “Inside the Mind of Pro-Gamers”
- Lectures: “Gaming Mental Fortitude through Hard Work and Dedication”
- Materials: in-game mentality, coping with errors, tilting, and mental attacks.
- Techniques: lag-cancelling (l-cancelling), jump-cancelled (JC) grabs.
- Practice: Three-man rotations on the set ups. Singles matches will be called to recorded setup so that everyone has at least one match to analyze for homework.

**Homework:**
- Watch: “The Smash Brothers: Episode 5 - Revolution” (28:15) - [https://www.youtube.com/watch?v=qv3Db6CGfNQ&list=PLoUHkRwnRH-lXbZfwgiEN8eXmoj6DtKM&index=5](https://www.youtube.com/watch?v=qv3Db6CGfNQ&list=PLoUHkRwnRH-lXbZfwgiEN8eXmoj6DtKM&index=5)
- Watch: Recording of self matches. Analyze and write down patterns regarding getting away from the ledge.
- Research: Meet up with doubles partner to go over strategies and goals.

**Additional Resources:**
- Video: “Top 10 Mind Games” - [https://www.youtube.com/watch?v=wkRaoABLIMM](https://www.youtube.com/watch?v=wkRaoABLIMM)
- Video: “Top 10 Spot-dodge Mind Games” - [https://www.youtube.com/watch?v=9j5T08g7fKQ](https://www.youtube.com/watch?v=9j5T08g7fKQ)
- Video: “L-Canceling” - [https://www.youtube.com/watch?v=WNuYq7_nwzY](https://www.youtube.com/watch?v=WNuYq7_nwzY)

**Week 6: “Professional Gaming as an Occupation”**

**Class: “Everyday I’m SHFFL-ing”**
- Lectures: “Gamer Prime Compared to Athlete Prime”
- Lectures: “A Professional Gamer’s Schedule”
- Materials: reads, reaction, conditioning, baiting, forced-mistakes.
- Techniques: short-hop fast-fall l-cancel (SHFFL), aerial drift.
- Practice: Three-man rotations on setups. Focus on trying to incorporate new techniques into play. Doubles matches will be called to recorded setup so that every team has at least one match to analyze for homework.

**Homework:**
- Watch: “The Smash Brothers: Episode 6 - Paper Cuts” (33:32) - [https://www.youtube.com/watch?v=IXB8yd4nxgs&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoj6DtKM&index=6](https://www.youtube.com/watch?v=IXB8yd4nxgs&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoj6DtKM&index=6)
- Watch: Recording of doubles matches. Collaborate with teammate to determine what was done well, what wasn’t done well. Also provide analysis feedback for opponents.

**Additional Resources:**
- Video: “Top 10 Hard Reads” - [https://www.youtube.com/watch?v=9TVccz8oHAc](https://www.youtube.com/watch?v=9TVccz8oHAc)
- Video: “Top 10 Hard Reads #2” - [https://www.youtube.com/watch?v=iEjcZb02XXY](https://www.youtube.com/watch?v=iEjcZb02XXY)
Week 7: “Technology and Future Applications in Video Games”

Class: “Wavedash Back Forward Smash”
- Lectures: “eSports and Related Technology in Medicine”
- Materials: neutral/punish game state, option-select, flow-chart scenarios.
- Techniques: wavedashing.
- Practice: Doubles matches on non-recorded setups. Called singles matches on recorded setup.

Homework:
- Watch: “The Smash Brothers: Episode 7 - The Robot” (29:56) - https://www.youtube.com/watch?v=z-1YfhUFtbY&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoij6DtKM&index=7
- Watch: Recording of self matches. Analyze and write down patterns regarding out of shield options.

Additional Resources:
- Video: “Wavedashing” - https://www.youtube.com/watch?v=_EcPgWGiEhk

Week 8: “Team Building and Community Building in eSports”

Class: “Doubles”
- Lectures: “Team Games in eSports”
- Lectures: “Colloquial Term: ‘Toxic’ in eSports Community”
- Materials: doubles strategies: sandwich, two-singles, aggressor/support; two-man punish game; bouncing or passing.
- Practice: Three-man rotations on setups. Doubles matches will be called to recorded setup so that every team has at least one match to analyze for homework.

Homework:
- Watch: “The Smash Brothers: Episode 8 - The Natural” (39:31) - https://www.youtube.com/watch?v=h2mcEHjOrt8&index=8&list=PLoUHkRwnRH-lXbZfwlgiEN8eXmoij6DtKM
- Watch: Recordings of doubles matches. Analyze your own team and your opponents.
- Research: Collaborate with your teammate to come up with team strategies for upcoming doubles tournament.

Additional Resources:
- Reading: “Teams 101” - http://textuploader.com/6akt
- Reading: “Advanced Guide to Doubles” -
  https://nmwhittier.wordpress.com/2016/08/12/nmws-advanced-guide-to-doubles/

Week 9: “The Finances of eSport Events”
Class: “Slippery Like Butter”
  - Lectures: “Running an eSports Event”
  - Lectures: “eSports Companies and Sponsors”
  - Materials: movement options, timing, advanced topics on wavedashing.
  - Practice: In class doubles round-robin tournament. Recordings will be planned so that each team gets recorded at least once.

Homework:
  - Watch: “The Smash Brothers: Episode 9 - Game” (22:42) -
    https://www.youtube.com/watch?v=nKzYWqkga74&index=9&list=PLoUHkRwnR-H-lXbZfwlgEiEN8eXmoj6DfKM
  - Watch: Recordings of doubles matches. Try to find things in the matches that could work in singles as well.
  - Research: Prepare your mentality for the tournament. Do your research on your opponents.

Week 10: “Future of eSports”
Class: “Game”
  - Lectures: “The Future of eSports”
  - Practice: Final double elimination singles tournament. Competitive stages and rules will be in effect.

Additional Resources:
  - Channel: “SSBM Tutorials” -
    https://www.youtube.com/channel/UC46ZTid4t2ctB6osM0WTiJA
  - Channel: “GRsmash” - https://www.youtube.com/user/ghostrager