Course Information

George Mason University
Computer Game Design Program
Game 600-002: Research Methods in Game Design
Date/Time: Friday from 1:30 – 4:10pm
Location: Art and Design Building, 2002

Instructor: Dr. Olivia M. Blackmon
Email: obblackmo@gmu.edu
Office Hours: Friday 9:30 – 11:30am
Location TBD

Class Schedule

August 27 – December 19, 2018
Class meets on Friday from 1:30 – 4:10pm for a seminar style lecture on Game and Social Research Methods. All the required work for each course needs to be submitted before the deadlines posted on Blackboard.

Course Description

Game 600-002, Research Methods in Game Design is an undergraduate-level introduction to research design and inquiry. Our goal is to understand and appreciate the logic and practices game designers and social researchers use to examine and explain the social world. The course is also designed to provide a foundation for reading and critically evaluating research literatures of the social sciences, particularly in game design. We will explore a number of key issues confronting researchers: (1) theoretical paradigms, selecting (2) a research question, (3) developing conceptual models, (4) addressing issues of causality, (5) collecting data, (6) choosing analytical methods, and (7) interpreting findings. The course is intended to educate students on the basics with regard to research approaches in the game design and the social sciences. Students will also learn how to develop their own research projects. And, as part of the course requirements, students will conduct a small-scale research project by collecting data on a game research topic of their choice. The class meetings will include some lecturing but will consist primarily of focused discussions pertaining to assigned readings and out-of-class assignments that will be made available via Blackboard.

Course Objectives

This course is designed to focus on the development of skills and competencies that will help students to:

- Understand the various methods of research;
- Understand and be able to apply the basic theoretical paradigms consistent with social science research in game analysis;
- Understand the difference between qualitative and quantitative research and know when to use aspects of each method as appropriate;
- Test hypothesis using data and scientific reasoning;
- Understand how probability and theory affects interpretation and experimental results;
- Understand the difference between causation and correlation; and
- Be able to offer a sound critique of published research based upon fundamental concepts in social science research

Expected Hours of Work for this Course:

Over 16 weeks, students will spend 3 hours (180 minutes) per week in lecture, direct instruction or guided interaction with the instructors. Students are expected to spend 6.5 hour (390 minutes) per week in other forms of activities outside of the classroom, which could include working on homework assignments, projects, papers, presentation preparation and review for the exam. Students are expected to spend a total of 150 hours on this course during the semester.
Textbook

All readings listed on the syllabus are required readings, to be read by the day on which they are listed on the syllabus. Readings marked on the syllabus as “Blackboard” will be made available as PDFs on the GMU Blackboard website. The class has two required books:


Requirements and Evaluation

The assessment of this course will be through a series of written assignments, oral presentation, and ongoing in-class participation. The course has five major components:

**Research Proposal**: This course is designed around the completion of a research proposal where students will perform a series of assignments, which will develop into your proposal. The research proposal should be between 10-15 pages in length.

**Assignment 1: Introduction to Your Research Topic** (2 pages)
The introduction leads the reader from a general subject area to a particular field of research. It establishes the context and significance of the research being conducted by summarizing current understanding and background information about the topic, stating the purpose of the work in the form of the research problem supported by a hypothesis or a set of questions, briefly explaining the methodological approach used to examine the research problem, highlighting the potential outcomes your study can reveal, and outlining the remaining structure of the paper.

**Assignment 2: Literature Review Workshop**
You will work in your team-topic groups and provide comments, edits, and an evaluation of each member of your group’s literature reviews. Your comments will be submitted to the group members, and on Blackboard.

**Assignment 3: Literature Review Finalized** (10 pages), plus references
Do a review of past empirical and theoretical literature germane to your research question. What are the central concepts in the literature? What findings or conclusions can you draw from this literature? What are the theoretical explanations given for these findings? Develop a set of working hypotheses and/or research questions for further research on your topic. Hypotheses can be as simple as statements about current findings in the literature. More ambitiously, they can be observations of gaps in the literature and your reasoned expectation of what filling that gap will demonstrate. You should read other literature reviews to help get a sense of how you might organize and present your review. The *Annual Review of Sociology* is a good source of examples. Submit a well-reasoned document presenting the literature review, your conclusions and hypotheses.
Assignment 4: Research Questions, Methods and Design (6 pages), plus references
The methods section describes the rationale for the application of specific procedures or techniques used to identify, select, and analyze information applied to understanding the research problem, thereby, allowing the reader to critically evaluate a study’s overall validity and reliability. The methodology section of a research paper answers four main questions: (1) How was the data collected or generated? (2) The design of your experiment (3) What types of procedures are you using (i.e. quantitative, qualitative, or mixed methods) (4) How was it analyzed? The writing should be direct and precise and always written in the past tense.

Assignment 5: Significance and Conclusions (2 to 3 pages), plus references
In the discussion you should explain how your proposed research would lead to a significant improvement over the original studies, and how it would benefit the field you are studying. Elaborate on how your proposed research relates to the literature and any implications you might have for future use. The conclusion will be in the final 1-2 paragraphs of the discussion and summarizes your paper.

Assignment 6: Final Research Proposal: The final product will be a research paper proposal created from assignments 1 through 5. Research proposals should be between 20-25 pages, double-spaced, not including the references section. The instructor will provide more details and tutorial sessions regarding the paper integrated throughout the course.

Project Presentation: Students are expected to develop a research proposal presentation that addresses the focus of their research proposal paper. The proposal should include an introduction to the research problem, understanding of theoretical perspectives to be employed, discussion of prior research, data collection methods to be employed, and data analysis techniques proposed. The presentation can take the form of a PowerPoint, video, in-class activity, outline, or other creative methods. Students should be prepared to discuss the validity of their research proposal and their sample data collection tool or qualitative methodology used; in a 10-minute presentation in the presence of their peers.

Mini-Lecture Series: Graduate students are expected to develop two mini-lectures (or in-class activities) that relate to that week’s topic area. Lectures should use multi-media, game-technology, or interactive learning environments to engage the class in a discussion for 20-30 minutes. Graduate students are expected to do additional reading for their mini-series, and provide Dr. Blackmon the list of additional readings they will be covering to the class.

In-class Activities and Participation (Ongoing): Class attendance is required for this course. If you must miss or arrive late to a class for any reason, please let me know in advance. I expect that everyone will come to class prepared and will participate actively in-class discussion and activities. I also expect that this participation will be based on an informed familiarity and thoughtful engagement with the assigned reading.
### Grading

This course uses a percent-based grading schema, as shown below.

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Assignment Due Date</th>
<th>Point Value Per Assignment</th>
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<tbody>
<tr>
<td>Assignment 1: Introduction to Your Topic</td>
<td>Friday, September 28th</td>
<td>5%</td>
</tr>
<tr>
<td>Assignment 2: Literature Review Workshop and Comments</td>
<td>Thursday, November 1</td>
<td>10%</td>
</tr>
<tr>
<td>Assignment 3: Literature Review Finalized</td>
<td>Friday, November 9th</td>
<td>15%</td>
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<tr>
<td>Assignment 4: Research Questions, Methods, and Design</td>
<td>Friday, November 16th</td>
<td>10%</td>
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<tr>
<td>Assignment 5: Significance and Conclusion</td>
<td>Friday, November 30th</td>
<td>5%</td>
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<tr>
<td>Assignment 6: Final Research Proposal (Combination of Assignment 1-5)</td>
<td>Friday, December 7th</td>
<td>20%</td>
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<tr>
<td>Assignment 7: Research Proposal Presentation</td>
<td>Friday, December 7th</td>
<td>10%</td>
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<tr>
<td>Mini-Lecture Series: Graduate Students (2 each)</td>
<td>On Going</td>
<td>15%</td>
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<tr>
<td>In-Class Activity (10 activities, 1 percent each)</td>
<td>On Going</td>
<td>10%</td>
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**Total** 100%

The grading scale below, based on %, determines your final letter grade.

- 100 – 93: A
- 86 – 83: B
- 76 – 73: C
- 66 – 63: D
- 92 – 90: A-
- 82 – 80: B-
- 73 – 70: C-
- 62 – 60: D-
- 89 – 87: B+
- 79 – 77: C+
- 69 – 67: D+
- <59: F
Policies

Late Work:

- Late work will not be accepted in this course unless there is a documented medical illness or another situation that is outside the students control.
- In the event of an unforeseen circumstance where a deadline is missed, the instructor should be informed immediately. A doctor’s note should be presented in case of a medical emergency. For every day it is late the student will receive 5 points deducted from the final grade of the assignment.
- All submission should be through Blackboard. Submissions sent through email will receive a grade of zero.
- Students must notify faculty during the first week of class of their intention to be absent from class on their day(s) of religious observance. Faculty will continue to extend to these students the courtesy of absence without penalty on such occasions.
- Students are allowed to miss 2 classes during the semester without being penalized on their final grade. Every missed class beyond the 2 allowed, will result in ¼ letter grade reduction per missed day. For example, if you received an “A” for your final grade and you missed four classes (2 excused, and 2 beyond the allowed missed days) your letter grade will be dropped to a “B”. There will be a sign in sheet each class to determine the total missed classes during the semester.

Netiquette:

Please observe the following rules of netiquette for email and online communication:

- Use salutation when sending emails to your instructor and sign your name at the end of each email
- Use your GMU email for any correspondence with the instructor and check your GMU email on regular basis. All communication from the instructor will come there
- Remain professional, respectful, and courteous at all times

Academic Integrity:

Please review GMU’s policy on academic integrity, located at https://oai.gmu.edu. Students should familiarize themselves with the Code of Academic Integrity for GMU and all graded work must be completed in accordance with this Code. In this code, academic dishonesty is defined as “cheating of any kind, including misrepresenting one’s own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information”. This extends beyond written work and includes material of any kind found on the Internet. Commitment to academic honesty upholds the mutual respect and moral integrity that GMU’s community values and nurtures. To this end, the George Mason University Code of Academic Integrity has been established and must be honored by all members of its community.

Disability Support Services:

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 703-993-4306 in Sub I Suite 2500, on the Fairfax campus to establish eligibility and to coordinate reasonable accommodations.
For additional information please refer to: https://ds.gmu.edu
**Tentative Submission Schedule**

*This is a tentative schedule and content labeled below may be changed based on class learning styles and thus students should remain flexible.*

**Week 1**

<table>
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<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>F 8.31</td>
<td><strong>Introduction to Research Methods</strong> Syllabus Review Assignments, In-Class Activity and Presentations</td>
</tr>
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**The Process and Problems of Social Research**
Reading Text Book: Galvan, Chapter 1 – Writing Reviews of Academic Literature: An Overview


**Reading and Writing Social Research**
Reading Textbook: Babbie, Chapter 15 – Reading and Writing Social Research

Reading: Review in-class activity 1 before class

**In-Class Activity 1: Devising a Hypothesis**

**Week 2**

<table>
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<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>F 9.7</td>
<td><strong>Writing Workshop</strong> Time: 1:30 – 2:30pm Roadshow (5-minutes) Strategies for Getting Started on a Draft (45-minutes) <strong>Writing Center Point of Contact (POC):</strong> Jenna Kahn, <a href="mailto:jkahn4@masonlive.gmu.edu">jkahn4@masonlive.gmu.edu</a></td>
</tr>
</tbody>
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**Studying Video Games and The Game Industry**
Reading Textbook: Smith et al., Chapter 1 – Studying Video Games
Reading Textbook: Smith et al., Chapter 2 – The Game Industry

Reading Blackboard: Tschang, Balancing the Tension Between Rationalization and Creativity in the Video Games Industry
Reading Blackboard: Eskelinen, Towards Computer Game Study

**Research for Design**
Reading Textbook: Babbie, Chapter 4

**Conceptualization, Operationalization and Measurement**
Reading Textbook: Babbie, Chapter 5

**Homework by Monday, September 10th by midnight:** Send your research topic areas (2-3 sentences) to: Theresa Calcagno tcalcagn@gmu.edu and Stephanie H Grimm sgrimm4@gmu.edu copy Dr. Blackmon
Week 3
F  9.14

**GMU Library Day – Developing Your Concept**

Time: 1:30 – 2:30pm

**Library Guest Presenter:**
Theresa Calcagno Librarian at GMU-STEM Library Team (email: tcalcagn@gmu.edu)
Stephanie Grimm (email: sgrimm4@gmu.edu)

**Reviewing and Analyzing Literature**
- Galvin, Chapter 3 – Selecting a Topic and Identifying Literature for Review
- Galvan, Chapter 4 – General Guidelines for Analyzing Literature

**Organization and Structure of your Topic:**
https://owl.purdue.edu/owl/teacher_and_tutor_resources/teaching_resources/writing_workshops_for_graduate_students/graduate_writing_workshops_organization_and_structure.html

**Introductions:**
https://owl.purdue.edu/owl/teacher_and_tutor_resources/teaching_resources/writing_workshops_for_graduate_students/graduate_writing_workshops_introductions.html

**Literature Reviews:**
https://owl.purdue.edu/owl/teacher_and_tutor_resources/teaching_resources/writing_workshops_for_graduate_students/graduate_writing_workshops_literature_reviews.html

**In-Class Activity 2: Brainstorming the Purpose of Your Research Project**

**How to Use a Game as a Source**

Time: Time: 3:00 – 3:30

**Graduate Student Presentation:**
Stephanie Kane, GMU-Computer Game Design Graduate Student

**Reading Textbook:** Stephanie - Pending Readings

Week 4
F  9.21

**Writing Workshop**

Five Techniques for Clear Writing Style (50-minutes)
Time: 1:30 – 2:30pm

**Writing Center Point of Contact (POC):** Jenna Kahn, jkahn4@masonlive.gmu.edu

**Indexes, Scales and Typologies**
Reading Textbook: Babbie, Chapter 6

**In-Class Activity 3: Dimensions of Popularity**

**Logic of Sampling Methods**
Reading Textbook: Babbie, Chapter 7
Before class: Bring a recent poll (either from the website, a newspaper article, etc.). Be prepared to critique the article and discuss the sampling (if there is one!)

In-Class Activity 4: News Paper Discussion and Polling Activity

Week 5
F 9.28

Ethics and Politics of Social Research

Institutional Review Board (IRB) Presentation
Process of IRB protocol at GMU
Time: 3:00 – 4:00pm
GMU-IRB Guest Presenter: Katherine Brooks, M.Ed., M.A., CIP – IRB Specialist, contact information: irb@gmu.edu

Reading Textbook: Babbie: Chapter 3

Reading Online:
Read the American Psychological Association Code for Ethics and focus on two standards http://www.apa.org/ethics/code/index.aspx

Read Melonie Fullick’s article on ethical issues: http://www.universityaffairs.ca/opinion/speculative-diction/high-profile-academic-fraud-symptom-of-underlying-dysfunction/

Read the Institutional Review Board website at GMU and examine the policies and procedure for conducting a research study: https://oria.gmu.edu/irbnet/

Qualitative Approaches to Studying Games
E-Text: Lankoski, Petri & S. Bjork, Part II: Qualitative Approaches for Studying Games, pg. 23 - 57
eBook available: http://repository.cmu.edu/cgi/viewcontent.cgi?article=1032&context=etcpress

Critical Game Presentation 1: Getting to the Core of How to Play a Game and Counting the Verbs

Assignment 1 Due: Introduction to Your Topic

Week 6
F 10.5

Dr. Blackmon will be in Panama on her Fulbright – this week.
Guest Lecture: Orin Adcox

Qualitative Field Research: Observing, Participating and Listening
Reading: Babbie, Chapter 10
Online Reading: Ermi and Mayra (2005)
Online Reading: Ralph and Monu

In-Class Activity 5 (option 1 or 2): Observing Social Behaviors
*This must be completed over the weekend BEFORE this class.

Unobtrusive Research
Reading: Babbie, Chapter 11

**In-Class Activity 6 (option 1 or 2): Content Analysis**

**Week 7**

F 10.12

**GMU Library Day - Diving Deeper into Your Literature Review**
Time: 1:30 – 2:30pm

**Library Guest Presenter:**
Theresa Calcagno Librarian at GMU-STEM Library Team (email: tcalcagn@gmu.edu)
Stephanie Grimm (email: sgrimm4@gmu.edu)

Reading Textbook: Galvan, Chapter 12 – Incorporating Feedback and Refining the First Draft
Reading Textbook: Galvan, Chapter 14 – Comprehensive Self-Editing Checklist for Refining the Final Draft

**Researching and Analyzing Gender and Culture in Games**
Time: 3:00 – 3:30

**Graduate Student Presentation:**
Stephanie Kane, GMU-Computer Game Design Graduate Student

Reading Textbook: Smith et al., Chapter 6 – Video Games in Culture

**Stephanie - Pending Additional Readings**

**Week 8**

F 10.19

**Writing Workshop**
Strategies for Revising a Draft (50-minutes)
Time: 1:30 – 2:30pm

**Writing Center Point of Contact (POC):** Jenna Kahn, jkahn4@masonlive.gmu.edu

**No Readings Today** – prepare for your Game Culture Analysis presentation

**Critical Game Presentation 2: Game Culture Analysis**

**Week 9**

F 10.26

**Writing Workshop**
Peer Review Workshop: Providing Helpful Feedback on Other Writers’ Drafts (45-minutes)
Time: 1:30 – 2:30pm

**Writing Center Point of Contact (POC):** Jenna Kahn, jkahn4@masonlive.gmu.edu

**Part 1: Writing the Literature Review Workshop**
Reading Textbook: Galvan, Chapter 9 – Guidelines for Writing a First Draft
Reading Textbook: Galvan, Chapter 10 – Guidelines for Developing a Coherent Essay
Reading Textbook: Galvan, Chapter 11 – Guidelines on Style, Mechanics and Language Usage

**Reading on Blackboard: Swales Handout**

Online Reading: Style of Literature Reviews
Assignment 2-Part 1: Submit Literature Review (in a word document) to Research Team Members
Due by Monday, October 29 at midnight
**Do not put this on blackboard

Assignment 2-Part 2: Literature Review Workshop/Comments
Due by Thursday, November 1 at midnight
**Read your research team members literature reviews and provide comments in track changes to your team members.
**Post your comments to your teammates papers on blackboard under Assignment 2 Submission

Week 10
F 11.2
Part 2: Literature Review Discussion and White Board Feedback

In-Class Activity 7: Literature Review Discussion Groups
*You must bring to class your literature review with comments

Quantitative Approaches to Studying Games
- Quantitative Methods and Analysis for the Study of Players and Their Behavior, pg. 151 – 175

Evaluation Research
Reading: Babbie, Chapter 12

Week 11
F 11.9
Experiments
Reading Textbook: Babbie, Chapter 8
Online article: Anderson and Dill (2000)
Online article: Tear and Nielsen (2013)

In Class Activity 8: Designing an Experiment

Survey Research
Reading: Babbie, Chapter 9

In Class Activity 9: Survey Research for Game Design
Serious Games
Reading Textbook: Smith et al., Chapter 8 – Serious Games – When Entertainment is Not Enough

Assignment 3 Due: Literature Review Finalized

Week 12
F 11.16
Mixed Methods Approaches
Reading Blackboard: Schutt, Chapter 15: Mixed Methods, pg. 539-557

Mixed Methods in Game Design
E-Text: Lankoski, Petri & S. Bjork, Part IV Mixed Methods, pg. 271 – 309
eBook available: http://repository.cmu.edu/cgi/viewcontent.cgi?article=1032&context=etcpress

Game Aesthetics
Reading Textbook: Smith et al., Chapter 5 – Video Game Aesthetics

Narratives in Games
Reading Textbook: Smith et al., Chapter 7 – Narrative
Recommended Online Reading: Juul (2001). Games Telling Stories

Critical Game Presentation 3: Serious Games’ Analysis

Assignment 4 Due: Research Questions, Methods, and Design

Week 13
F 11.23
Thanksgiving Break - OFF

Week 14
F 11.30
Qualitative Analysis
Reading: Babbie, Chapter 13

Quantitative Analysis
Reading: Babbie, Chapter 14

Quantitative Approaches to Studying Games
  - Audio Visual Analysis of Player Experience, pg. 207-231
  - An Introduction to Game Play Data Visualization, pg. 231-251
eBook available: http://repository.cmu.edu/cgi/viewcontent.cgi?article=1032&context=etcpress

In-Class Activity 10: Qualitative and Quantitative Analysis

Assignment 5 Due: Significance and Conclusion

Week 15
F 12.7
Last Day of Class Pot Luck and Presentations
Assignment 6: Final Research Proposal

Assignment 7: Research Proposal Presentation