SM2723: PSYCHOLOGY OF INTERACTION AND GAMES: TESTING AND EVALUATION

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Psychology of Interaction and Games: Testing and Evaluation

Subject Code
SM - School of Creative Media

Course Number
2723

Academic Unit
School of Creative Media (SM)

College/School
School of Creative Media (SM)

Course Duration
One Semester

Credit Units
3

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
CS1103B Media Computing or SM1103A Introduction to Media Computing

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract

This course deals with effective design of interactive experiences through user testing and iterative prototyping, utilizing psychological theories of sensation and perception, motivation and personality, needs, learning, goals, belief systems, behaviors, and social influence as they pertain to interactive experiences like games, in online, offline, and immersive forms. We examine principles including visual and audio perception, emotions, cognition, personality, and the recent results in experimental psychology around psychological models explaining play behavior or motivation theories behind play. We introduce how audiences respond to play experiences based on the relationship of interactivity to learning theories, and explore visual and cultural archetypes like narratives, movies, and cartoons to distillate how people react as pertains to psychological theories, critically analyzing play behavior in game experiences. Hands on projects will prototype interactive experiences and layout full user testing workflows, taking methodology from game companies and research literature in careful evaluation processes.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe principles of psychology in the game science and interactive media context.		x	x	
2	Design and create user testing studies for development of game and interactive media prototypes.		x	x	x
3	Create, implement, and analyze psychological studies for the purpose of studying the interaction of games.		x	x	x
4	Apply biometric approaches to understand game and media interaction from user perspective.			x	x
5	Produce compelling and effective presentations and writing that can disseminate results to business, general audiences.		x	x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Lectures by faculty	1, 2, 3, 4, 5	
2	Discussion	Students and teachers discuss and critique each others' studies and designs.	2, 3, 4, 5	
3	Presentations	Students present and defend their design, study, and production.	2, 3, 5	

4	Projects	Final project involving previous concepts elaborated in class.	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Participation & documentation	1, 2, 3, 4, 5	10	-	Yes
2	Assignments	3, 4	40	-	Yes
3	Project design	1, 2, 3, 4, 5	25	-	Yes
4	Project testing	2, 3, 4, 5	25	-	Yes

Continuous Assessment (%)

100

Examination (%)

0

Minimum Continuous Assessment Passing Requirement (%)

0

Minimum Examination Passing Requirement (%)

0

Assessment Rubrics (AR)

Assessment Task

1. Participation & documentation

Criterion

- Active in-class participation, positive listening, strong ability to stimulate class discussion and comment on other points
- In-depth pre-class preparation and familiarity with peer reports and other materials
- Interpret others' views with an open mind and ready to negotiate
- Readiness to share personal insight via analysis and synthesis with informed views
- Constructively critical, thus facilitating the discovery of new issues

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not reaching marginal levels

Assessment Task

2. Assignments

Criterion

- Excellent grasp of research material, able to explain key concepts, assumptions and debates
- Rigorous organization, coherent structure, distinct thesis, properly argued with strong narrative
- Insightful interpretation of the subject matter with distinct themes and thesis
- Critical analysis with insightful comments opening up new issues, or suggesting the ability to theorize
- Ability to approach a text or a theme using a variety of theories and analytical tools
- Strong bibliography suggesting breadth and depth of coverage and informed insights

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not reaching marginal levels

Assessment Task

3. Project design

Criterion

- Rich, informative content, excellent grasp of the material with in-depth and extensive knowledge of the subject matter
- Rigorous organization, coherent structure, and systematic exposition with a strong sense of narrative
- Strong grasp of the research literature and basing design on previous academic knowledge.
- Critical analysis with insightful comments opening up new issues, or suggesting the ability to theorize.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not reaching marginal levels

Assessment Task

4. Project testing

Criterion

- User testing done in rigorous and statistically valid manner.
- Testing is based on sound psychological principles inspired from in-class participation and discussion.
- Work raises questions and instill insights about the design and principles illustrated by the design as an intervention, and told in an academic context in the paper.
- Innovative exploration by combining knowledge from different disciplines (e.g. mathematics, psychology, physics, anthropology, etc.) to create an inter-disciplinary project
- Efficient adjustment of plans and strategies in response to resources (time, space, equipment, etc) available with constructive adjustment

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not reaching marginal levels

Part III Other Information

Keyword Syllabus

Game science, psychology of play, interactive media, user testing, biometric testing, psychological testing, playful design, physical design, game design, design for motivation, involvement, emotional engagement, personality analysis, cognition and action, learning in games and media, environmental storytelling, coding analysis, interviews, focus groups, think-aloud testing.

Reading List

Compulsory Readings

	Title
1	Przybylski, A. K., Rigby, C. S., & Ryan, R. M. (2010). A motivational model of video game engagement. Review of general psychology, 14(2), 154.
2	Hodent, C. (2017). The Gamer's Brain: How Neuroscience and UX Can Impact Video Game Design (Chapters on Perception and Attention). CRC Press.
3	Canossa, A., Badler, J. B., El-Nasr, M. S., Tignor, S., & Colvin, R. C. (2015). In Your Face(t) Impact of Personality and Context on Gameplay Behavior. In FDG.
4	Isbister, K. (2010). Enabling social play: A framework for design and evaluation. In Evaluating user experience in games (pp. 11-22). Springer London.

Additional Readings

	Title
1	Fogg, B. J. (2009, April). A behavior model for persuasive design. In Proceedings of the 4th international Conference on Persuasive Technology (p. 40). ACM.

2	Murray, J. H. (1997). Immersion. In Hamlet on the Holodeck: The future of narrative in cyberspace (pp. 123-158). Cambridge, MA: The MIT Press.
3	Vieira, L. C., & da Silva, F. S. C. (2017). Assessment of fun in interactive systems: A survey. Cognitive Systems Research, 41, 130-143.
4	Yee, N. (2006). Motivations for play in online games. CyberPsychology & behavior, 9(6), 772-775.
5	Bavelier, D., Green, C. S., Han, D. H., Renshaw, P. F., Merzenich, M. M., & Gentile, D. A. (2011). Brains on video games. Nature reviews neuroscience, 12(12), 763.