COURSE CONTENT

Course Code	DT3014
Course Title	Game Design II
Pre-requisites	DT2020/DM2001 Game Design I
No of AUs	3
Contact Hours	39 hours studio contact

Course Aims

In this course you will expand beyond the foundations of game design to focus on game mechanics. You will explore how game mechanics provides a structure and purpose for a player's participation in a game. You will then apply mechanics theory and principles to create a game that is developed around a distinct game mechanic. The learning in this course contributes directly to further independent study in game design.

Intended Learning Outcomes (ILO)

By the end of the course, you should be able to:

1. Describe how principles of game mechanics contribute to the design and experience of games.

2. Demonstrate the use of game mechanics to propose a game structure.

3. Design and play-test a game that utilises a central mechanic.

4. Present and evaluate the effectiveness of specific game mechanics.

5. Constructively discuss and critique principles of game design, strategies and mechanics employed by peers.

Course Content

Games and Mecahnics
In this course you will expand upon learning from previous courses in game design. This course focuses mainly on game mechanics – the technical and game-play rules that govern the structure and experience of a game. Game mechanics will be considered in the broadest sense, and so will include technical aspects of game engine structures, including code structures and environment mechanics such as physics and world design. You will also examine the mechanics of game play, and how designed rules can determine many aspects of how the game is played and experienced.

Testing and prototyping
As with all aspects of game design, prototyping and testing, and design iteration are key processes. Games never work out as expected in the first iteration, and so you will design and enact a testing program, where results from tests are objectively collected, analysed, and including to improve the game.

Teamwork
Most class activities will be in teams, although you have the choice to create your final project individually. Teamwork is a generally successful approach for game creation. You will be provided with team management processes and techniques to ensure good team relationships.

Assignments

This course has two assessable assignments.

Assignment 1: Principles of Game Mechanics. The first assignment is assessed continuously with three exercises that cover essential aspects of game design and mechanics. 1: Identifying mechanics in a game and modifying these to create a deeper enriched game structure. 2: Analyse, modify and "break" a game to create a more challenging experience. This introduces the idea of "breaking" rules, and how far a rule can be pushed before it breaks the core idea of the game. You will also discuss the boundaries of a game's imagination, and how a game creates a defined boundary in which the game play stays. 3: Breakdown all gameplay into rules and mechanics. Work with a team to communicate and share those mechanics. These three exercises may take place physically, or with simple software, and form the foundation upon which the second assignment is based.

Assignment 2: Game World Mechanics. The second assignment combines game mechanics with narrative and world-building. You will explore how these two principles interact, and together form a rewarding immersive experience. Game narrative is a unique form of both linear and non-linear narrative, and a range of forms and narrative mechanics will be discussed. Using appropriate software, you will design and build a simple narrative-based game that implements clear mechanics to provide a reachable goal for the player. Constraints and limitations will be applied to ensure that this assignment is achievable.

Assessment (includes both continuous and summative assessment)

Component	ILO Tested	Programme LO	Weighting	Team/ Individual
Continuous Assessment Assignment 1: Principles of Game Mechanics	1,2,3,4	N.A	40	Individual
Final Project: Assignment 2: Game World Mechanics	1,2,3,4	N.A	40	Individual
Continuous Assessment: Participation	5	N.A	20	Individual
Total			100%	

Reading and References

Aarseth, E. *A narrative theory of games.* Proceedings of the international conference on the foundations of digital Games. ACM, 2012.

Byrne, E. *Game level design.* Vol. 6. Boston: Charles River Media, 2005.

Fullerton, T. *Game DesignWorkshop: A playcentric approach to creating innovative games*. London:Morgan Kaufmann 2008

McGonigal, J. *Reality is broken: Why games make us better and how they can change the world.* Penguin, 2011.

Moore, M. *Basics of Game Design*. CRC Press 2011

Oxland, K. *Gameplay and Design.* London: AddisonWesley. 2004

Perry, D *Game Design.* London: Cengage 2010

Salen, K. and Zimmerman, E. (2004) *Rules of Play.* MIT Press: London

Schell, J. *The Art of Games Design: A book of lenses.* London: Morgan Kaufmann Publishers 2008

Sicart, M. *Defining Game Mechanics.* Gamestudies.org
[http://gamestudies.org/0802/articles/sicart/]

Sylvester, T. *Designing Games: A Guide to Engineering Experiences*. O'Reilly Media 2013

Course Policies and Student Responsibilities

(1) General

You are expected to complete all assigned readings, activities, assignments, attend all classes punctually and complete all scheduled assignments by due dates. You are expected to take responsibility to follow up with assignments and course related announcements. You are expected to participate in all project critiques, class discussions and activities.

(2) Punctuality

You are expected to be punctual for all classes. If you are more than 30 minutes late, you will be deemed as absent and will not be able to sign on the attendance register.

(3) Absenteeism

In-class activities make up a significant portion of your course grade. Absence from class without a valid reason will affect your participation grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class activities.

Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Planned Weekly Schedule*

*Subject to adjustment by instructor according to the teaching situation, students' progress, public holidays and unforeseeable circumstances. A revised schedule will be issued to students at the start of the semester.

Week	Topic	Course LO	Readings/ Activities
1	**Introduction to course** **Assignment 1: Exercise 1:** In-class – identify and modify simple mechanics.	1,2	**Introductory Lecture** - Overview of game mechanics history and theory **Assignment 1: Exercise 1**
2	**Lecture on Game mechanics development** **Assignment 1: Exercise 2**: Identify and modify game mechanics.	1,2,3	**Lecture on Game mechanics development** **Assignment 1: Exercise 2**
3	**Lecture on Game mechanics – applications** **Assignment 1: Exercise 2:** Playtest modified mechanics. Critique **Introduction to Exercise 3:** Mechanic breakdown in teams	1,2,3,4	**Lecture on Game mechanics – applications** **Assignment 1: Exercise 2:** Critique **Introduction to Exercise 3.**
4	**Workshop** **Exercise 3:** Workshopping broken mechanics. Playtest a broken game. **Introduction to Assignment 2:** Readings for Game World Mechanics	1,2,3,4	**Lecture on Game mechanics – breaking rules** **Introduction to Assignment 2: Game World Mechanics**
5	**Assignment 2: Game World Mechanics** **Studio design and preparation**	1,2,3,4	**Lecture on:** – Defining world and narrative mechanics – Overview production pipeline **Assignment 2**
6 - 8	**Learning appropriate software** Class exercises of game engine software	1,2,3,4	**Demonstration of software** **Software tutorials**
9 - 10	**Lectures** **Assignment 2:** Team and independent studio production	1,2,3,4	**Lecture: Assignment specific** - Defining requirements - Establishing gameplay and testing
11	**Assignment 2 – All class prototype testing**	1,2,3,4	**Studio activity** **Individual and team-based consultation and feedback**
12	**Assignment 2 – Production**	1,2,3,4	**Game production**
13	**Assignment 2: Final Presentations**	4,5	**Student presentations and handin**