



NEW JERSEY INSTITUTE OF TECHNOLOGY  
COLLEGE OF ARCHITECTURE AND DESIGN

### **GAME DESIGN: GAME ENVIRONMENTS/HISTORY OF GAMES**

**COURSE:** DD 275 – History of Games (3 credits)  
**PROGRAM:** Digital Design/School of Art + Design  
**LOCATION:** first semester second year/fall term (undergraduate)  
**INSTRUCTOR:** Taro Narahara

**DESCRIPTION:** The course is a guided exploration through the world of games. Students experiment, play, and analyze various aspects of games – from early traditional games to current generation electronically-mediated games; from individual games to collaborative online games. Game types will be analyzed with particular attention paid to the virtual environments in which these games take place. The expressive and persuasive aspects of games will also be explored.

**PROJECT:** Students are to create a game environment or game character based on their study and understanding of the history of games.

**REQUIREMENTS:** A series of analytical and creative tasks are undertaken throughout the semester, starting with an analysis of traditional games covering a variety of genres, from sports games to strategy war games. Subsequently game structures, environments, characters, props/tools, etc. are all studied. The course includes two creative projects. The first, pairs of students create and build a traditional/physical game. These games include rules/instructions and must be fabricated (generally with digital fabrication techniques) by the team which are then presented and played at the annual *NJIT GameFest* in November of each year. At the end of the semester, students are given the opportunity to select from a wide range of options for a final project created entirely within the digital realm. The options include the development of a game and character or environment based on a non-game literary/narrative or other source.

Final submission includes storyboards for the proposed game, story/script, analysis and narrative description of game structure, 3D model (created in either *Autodesk 3DS Max* or *Autodesk Maya*) of environment and/or character(s), screen captures showing development of 3D model, and a series of sequential renderings (still images) illustrating key views/perspectives of the environment(s) and/or positions and costumes/apparel for the character(s).

**COURSE OBJECTIVES:** (1) To gain perspectives and understanding about the history of both traditional and non-traditional (digital) games. (2) To provide exposure to principles of game structures including concepts, such as abstract strategy games, game tree, and state space through simple game examples. (3) To provide opportunity to explore underlying concepts, technologies, and languages of contemporary video game productions. (4) To gain an understanding of available game-related digital environments not only from a standpoint of a game-player but also from that of a game-maker. (5) To provide an opportunity to develop the ability to present (“pitch”) a game idea project to others.

**REFERENCES:** (1) Bogost, Ian. *Persuasive Games: The Expressive Power of Videogames*. (Cambridge, MA: MIT Press, 2007). (2) Botermans, Jack. *The Book of Games: Strategy, Tactics & History*. (New York: Sterling, 2008). (3) Burnham, Van. *Supercade: A Visual History of the Videogame Age, 1971-1984*. (Cambridge, MA: MIT Press, 2003). (4) Hofer, Margaret K. *The Games We Played: The Golden Age of Board and Table Games*. (New York: Princeton Architectural Press, 2003). (5) Newman, James A. *100 Videogames*. (London: BFI, 2007). (6) Nielsen, Simon Egenfeldt with Jonas Heide Smith and Susana Pajares Tosca. *Understanding Videogames: The Essential Introduction*. (New York: Routledge/Taylor & Francis Group, 2008). (7) Taylor, T.L. *Play Between Worlds: Exploring Online Game Culture*. (Cambridge, MA: MIT Press, 2006). (8) Thompson, Jim. *Game Design Course: Principles, Practice, and Techniques – the Ultimate Guide for the Aspiring Game Designer*. (Hoboken, NJ: Wiley, 2007). (9) Reas, Casey. *Processing: A Programming Handbook for Visual Designers and Artists*. (Cambridge, MA: MIT Press, 2007). (10) Watkins, Adam. *Creating Games with Unity and Maya: How to Develop Fun and Marketable 3D Games*. (New York: Focal Press/Taylor & Francis Group, 2011).