GAME DESIGN (GAMES-GT)

GAMES-GT 101 Games 101 (4 Credits)
Games 101 is the foundational course for the NYU Game Center. The focus of Games 101 is game literacy – a shared understanding of games as complex cultural and aesthetic objects. The class will incorporate lectures, discussion, readings, and writing assignments, but the primary activity of the class is critical play – playing games in order to better understand and appreciate them. The class will cover games on and off the computer, including classic and contemporary board and card games, sports, and games on the PC, internet, and consoles.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 103 European Video Games of the 1980's (4 Credits)
This survey course covers a selection of the video games that were produced and played in Europe in the 1980s and early 90s. During this particularly relevant period, game developers were mostly self-taught hobbyists, who invented mechanics and conventions within the limitations of early home computers. Game creators also had to create their own channels of distribution, in an environment similar to that of current independent developers, but with limited access to digital delivery. The socio-historical and technological context of Europe in the 1980s provides a lens to analyze a corpus of games that is not well known within contemporary American games culture, but which has imposed a powerful influence over contemporary commercial and independent games practice. The course encourages students to play games critically, to understand the different game design strategies as well as technological approaches to developing games, and to develop an understanding of the ways in which European, Japanese and American games diverged through the 1980s and 1990s. This course is directed to students of game design and game studies, as well as those with an interest in the study of video games as a cultural form and / or digital media history and development.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 104 American Computer Games (4 Credits)
This survey course covers a selection of the computer games that were produced and played in the United States in the 1980s. While developers often started out in their bedrooms mailing out individual disks in ziplock bags, development and publishing companies sprung up from their early success; when the console game industry of the early 80s crashed in 1983, the relatively highend computer game market continued to innovate and sometimes even greatly prosper, albeit with a more narrowly targeted idea of its customers. The most popular games of the era retailed for an average of $30 $40 (around $70 $90 in today's money), often with stylish, lush presentation (thick manuals, cloth maps, scenesetting "feelies") that often doubled as a physical form of copy protection. Cultivating an aura of expense and quality allowed American game designers to project pop personas, explore new ways of creating meaning via play, and add genuine depth to game worlds. The political, cultural, and technological context of the United States in the 1980s provides a lens to analyze a corpus of games that, while often forgotten in contemporary American games culture, has imposed a powerful influence over our practices, and remains a rich ore of quirky ideas and neverexplored byways to mine. The course encourages students to play games critically, to understand different game design strategies as well as the technological constraints that often led to them, and to develop an understanding of the ways in which European, Japanese and American games diverged through the 1980s. While the primary focus of the course is computer—as opposed to console or arcade—games, the latter will also be discussed to a extent; partly because they provide an effective counterpoint to what was going on in home computers, but also because there are more than enough interesting obscurities and touchstones for any game designer to at least be passingly aware of. This course is directed to students of game design and game studies, as well as those with an interest in the study of video games as a cultural form and/or digital media history and development.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 110 Game Studies I (4 Credits)
An introduction to the critical and analytical approaches to the subject of digital games. Though the history of video games spans roughly fifty years, and although more than half of the population plays them, video games have only recently emerged as a field of serious study. This class introduces students to the theory of video games, and answers questions such as: How are video games structured? What types of experiences to video games give? Who plays video games, when and why?
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 112 Games and Players (4 Credits)
Game and Players gives students an overview of player-focused approaches to understanding game play, from a variety of methodological and theoretical frameworks. The class combines readings and analysis with exercises that give students hands-on experience with the methods discussed.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 115 Tackling Representation in Games (4 Credits)
Identity and representation are two of the most pressing and complex issues for contemporary video games, that without recognizing them an artist or critic would be missing a large part of how games are important in culture. With growing art and activist communities, video games are diversifying and grappling with a wide range of topics rarely seen before in the genre, and with it a greater need for informed perspectives on the topic of how marginalized people are depicted in media. This course discusses foundational theories of identity and encourages students to contribute their own ideas towards the design and interpretation of representation in games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 120 Game Studio I (4 Credits)
Game studio 1 is the Game Design M.F.A. program's introductory game development course. Students will gain experience with two game engines with complementary strengths and capabilities, working in teams on a series of four game development project cycles.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 121 Game Studio II (4 Credits)
In Game Studio 2, students will work individually or in teams to create a single digital game or other game project. Over the course of the semester, students will brainstorm, research, design, and develop a digital game. The philosophy of the course is learning through doing, and the majority of student work time will be spent in actual design and production, which will be structured and guided by the instructors. This production time will be supplemented by in-class exercises, readings and discussion, and talks from visiting game developers. At the end of the semester, each group will have produced a playable digital game.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 122 Prototype Studio (4 Credits)
Professional game development frequently involves a 'rapid prototyping' phase, wherein developers work feverishly to implement a large number of small ideas to test their potential before embarking on the more rigid and costly processes involved in full production. Many or most of the most famous games in history began with a minimalistic prototype created in less than a week. Prototype Studio is an intensive course which aims to build up a student's repertoire of fast-prototyping skills and provide the student with invaluable experience in starting and finishing games. The course consists almost entirely in the creation of thirteen playable prototype games, one per week. Each prototype will be confined within a certain genre, conceptual theme, or within unique technical constraints
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 123 Narrative Game Studio (4 Credits)
The creation of novel storytelling strategies for digital games is one of the key issues in current game development. Narrative games build bridges between dramatic writing for theatre and film and game design, and opens new avenues for new types of writing for digital media. The Narrative Game Studio is a hands-on course that focuses on games that include a strong storytelling component, providing the opportunity to do interdisciplinary work. This course introduces students to the design of narrative games, including conceptualization, foundational narrative design strategies, and writing. Students will learn how to use three different tools/engines to develop narrative games; they will work individually at first and then in teams. The course uses the adventure game genre as a gateway to the general strategies used to incorporate narrative in games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 124 XR Studio (4 Credits)
This course is a critical exploration of "virtual reality" (VR) as a passing fad, dystopian nightmare, and new mode of technological consciousness. How do we reconcile the VR industry's promise of "presence" with existing discourse about immersion and realism in games? Classroom lectures and lab time will focus on prototyping experiences for VR, and critiquing VR as a media culture.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 125 Narrative in AR Studio (4 Credits)
"Augmented reality [AR] is changing the way we understand the world by overlaying physical reality with real-time, interactive virtual content. We can now translate words in a foreign language through our phone screens, or play Pokémon by navigating the real world; our mobile devices become a lens through which we can see the world. This class hopes to educate students who will create next generation user experience, a 3D virtual overlay of the real world. The contents of this course are framed within the context of the Living Stories Through Technology research project, which investigates the use of augmented reality for storytelling. Students will work in the context of interactive narrative and game design, both at a theoretical and practical level. This course looks at what is possible today with mobile AR; students will work with the latest development tools. Students will work with GPS based AR, marker tracking, markerless tracking, depth map tracking, and point cloud tracking, as well as experimenting with connecting mobile devices to elements of physical computing through Arduino."
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 126 Procedural Generation for Games (4 Credits)
"Procedural generation" describes the broad category of techniques by which elements of digital games that have traditionally been designed by hand (e.g. levels, characters, puzzles, and narrative) can be designed by automated processes. In recent years, these techniques have been a major topic of interest for computer science research as well as a core design component of many commercially successful games. The course will teach students to understand and implement these techniques, and explore how to best combine procedural generation techniques with good design practice to produce interesting and novel experiences (rather than just using procedural generation techniques for technical curiosity). Emphasis is also placed on how procedural generation can uniquely harness the affordances of computers for designing games. The course is fundamentally practical. While students will study existing games and techniques, they will also produce games of their own across the three assignments.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 129 Project Studio (2-4 Credits)
In Project Studio, students will work alone or in teams to complete a single game over the course of the semester. Those wishing to take Project Studio must propose a concept or prototype to the instructor for approval. Priority will be given to students who propose a clear game concept or provide an interactive prototype. Teams, where applicable, should be formed before the start of the semester. The philosophy of the course is learning through doing, and the majority of student work time will be spent in actual design and production, which will be structured and guided by the instructor. This production time will be supplemented by in-class exercises, student presentations, critiques, playtesting, discussion, and visits from professional game developers.
Grading: Grad Tisch Graded
Repeatable for additional credit: Yes

GAMES-GT 141 UI/UX for Games (4 Credits)
This course explores the intersection of UI UX thinking and game experience/interface design. Students will be introduced to UI UX concepts and methods, and then supported in adapting them for game specific contexts. Game design - in fact all interactive design - is a conversational undertaking. Students will become better conversationalists both by adding to their store of experience design knowledge and by learning to focus on, empathize with, and draw out their conversation partners – the players.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 150 Game Design I (4 Credits)
Game Design 1 explores the fundamentals of game design. The focus of the class is the actual creation of several non-digital (off the computer) games. Just as art students might take "fundamentals" classes in figure drawing or color theory as part of their education to become visual artists, this class remains rooted squarely in the basics. It focuses on the elements common to all games that are fundamental for a game designer working in any format, from sports to board games to computer and video games. Although the focus of the course is on the creation of non-digital games, digital games will also be discussed and one of the assignments is the creation of a digital game concept pitch.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 151 Game Design II (4 Credits)
Game Design 2 is a one-semester course that builds directly on the class Game Design 1. Like the introductory course, the focus in the class is the actual creation of several non-digital games. However, Game Design 2 goes quite deep into advanced topics in game design, as students wrestle with more complex and challenging problems, such as formal playtesting procedures, balancing game economies, and designing games for real-world impact. The class will cover both the craft and the culture of making games, and has a particular emphasis on how designers communicate their ideas, with multiple assignments and exercises focused on the visual communication of dynamic systems. Although most of the projects will take the form of non-digital design, the course will address the application of ideas and procedures to digital games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 152 Board Game Design (4 Credits)
Board game design is a one-semester course for students who want to dig deeper into table-top games, from design to history to manufacturing. The first half of the course looks at the world of mass market games, which focus heavily on commercials, trends, plastics, licenses, low prices, and casual rules. The second half focuses on hobby games, designed for the dedicated game player, and the different styles of games in that world. The course is hands-on with at least one published game played in every class. There are multiple assignments where students bring these concepts to life through their own designs. Throughout the course, there is a focus on understanding players and designing games for a target audience.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 154 Tabletop Roleplaying Game Design (4 Credits)
"Roleplaying games represent one of the most important design spaces in modern gaming. Beginning in the early 70s, these games quickly took root and influenced games far beyond their own sphere. Mechanisms like levels, classes and hit points have been adopted in a far-reaching swath of board, card, digital and mobile games. But despite their influence, the design of RPGs is largely unexamined. This class will walk students through the design process from concept, to testing, to writing and production. At the same time, students will engage in meaningful play with historically significant games. The combination of design and play will allow us to examine these living games for their trends, tropes and strengths. From week to week the students will experiment with and design systems for roleplaying games with the ultimate goal of designing a complete game as part of a team. The class will operate on discussion, play, design, test cycle: We will discuss historical RPG design; students will play these designs; they will then design their own; and test them with each other in class."
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 155 Game Design: Professional Practice (4 Credits)
Game Design: Professional Practice builds a connection between the work of students at the NYU Game Center and the professional daily work of a practicing game designer in the real world. What does a game designer actually do, apart from the production tasks of software development or production manufacturing? In this class we will practice the skills of concept creation, communication, documentation, and design and production planning that are the heart of what many game designers do at their job. Students will visit game development studios, interview professional designers, and take job application tests currently in use in the game industry — beginning to think realistically and practically about this craft and discipline.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 156 Disobedient Objects & Subversive Play (4 Credits)
What does design look like as an activist practice? One answer was shown in the 2014-2015 Victoria and Albert Museum exhibit called Disobedient Objects, which centered the act of making occurring in social movements. Many of the posters, textiles, barricade formations, and place-making featured were made cheap, fast, and focused on a specific applicable purpose, providing a counter to typical aesthetic values of polish and expense. As activism grows in creative fields, game designers also wish to contribute to social movements with their craft, but often feel inhibited by development processes and costs. This course is part seminar and part practicum, where students will read different perspectives on activist design, study political sites in their daily lives, and create disobedient objects of their own to encourage the subversive play necessary for social change.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 162 Level Design Studio (4 Credits)
This course focuses on the theory and practice of level design for 3D video games. Students will develop fluency in conveying experience design goals and building 3D spaces, gaining a practical understanding of architecture, lighting, and CG texturing for digital spaces -- as well as a more abstract awareness of architectural theory -- culminating in a long-term hands-on level design project.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 163 Mixed Media Games (4 Credits)
Mixed Media Games is an intermediate-level guided seminar where students will focus on creating and mixing 'traditional' digital or tabletop prototypes with another form of media. By creating these prototypes, students will learn about different types of media through a lens of play and non-traditional interactions. Each session of the seminar will ask students to discuss each media's ability to convey its message and to understand how they can take advantage of way each media delivers its information to others. Mixed Media Games will require students to work in groups to finish each cycle's prototype. Additionally, this course will teach students how to create an interactive experience that goes beyond what people might consider 'gamification' of another form of media. Groups will maintain the goal of creating a prototype that is not built on top of a preexisting experience, but rather built alongside the form of media for that cycle.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 200 Visual Lab 0 (2 Credits)
"Visual Lab 0 is a fundamentals course that introduces incoming MFA Game Design students to the basics of visual design and communication. Following in the tradition of Code Lab 0, which plays a similar role with game programming, Visual Lab 0 helps students gain basic understanding and skills required for the visual aspects of game creation. The course is meant to be taken alongside Game Design 1, and Game Studio 1, and in a sense serves as a visual design tutorial for these classes. However, there will also be lessons and exercises that exist independently and focus on students learning concepts that might not immediately apply to their concurrent work in other classes."
Grading: Grad Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-GT 201 Visual Design for Games (4 Credits)
"What would a better understanding of visual design add to our games? What creative strategies can we employ to make our games deeply immersive and enjoyable? What are the processes involved in solving visual design challenges? How can visual design and art direction be used to trigger strong emotional responses? This course will explore all aspects of visual design in games, providing students experience using various visual design strategies and methods that can be applied to projects both large and small. Students will learn how to design Characters, Environments, Graphic User Interfaces, Heads-Up Displays, Logos, In-Game Messages, and how to make these game design elements move and behave in meaningful ways."
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 202 Visual Systems: Advanced Visual Design for Video Games (4 Credits)
Visual systems are forms of graphic presentation governed by rules. All mediums (forms and materials) have inherent qualities that we endeavor to explore and ultimately seek to exploit. The computer, as a visual medium and tool, offers the unique ability to impose ultra fast order and structure to a dynamic presentation process. From elegant and simple to tediously complex, systematic processes lay at the very heart of computer graphics and interactive art. This course will examine both the technical and aesthetic qualities, affordances and limitations of several low and high end visual systems. Students will be encouraged to explore new tools, and even consider developing their own, as they engage with class assignments. Two weeks will be given for each assignment, followed by a presentation of the work and a constructive group critique. Additionally, this course will provide a time and place for students to bring forward specific visual design problems from their thesis projects for critique and discussion.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 203 2D Art for Games (4 Credits)
In this course, students will develop the perceptive and conceptualization skills for visually developing the environments, characters and structures of a world — and will learn the fundamental principles and basic tools of 2D art creation. Students will develop skills to render digitally and non-digitally illustrative work in various contexts pertaining to games, starting from preliminary ideation, transition from page to screen, towards ultimately, production. Students will create works for the purpose of building a comprehensive portfolio that showcases a breadth of 2D skills, and they will learn the technical tools necessary to implement their work in-game. Under the overall theme of ""Reality to Fantasy," students will develop their drawing skills by taking ordinary, everyday subjects and reimagining them into fantastic, surreal visions.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 204 Intro to 2D Animation for Games (4 Credits)
2D Art and Animation for Games is a 1-semester, 4-credit class that builds fundamental skills around the design and production of art assets for games. Through a series of individual design assignments, critiques, and exercises, students will explore concepts like art direction, color theory, animation principles, and UI design while building a working knowledge of prominent industry tools.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 205 Tech Art Studio (4 Credits)
Tech Art Studio is intended to prepare students to gain a generalist's understanding of working in a 3D space. This includes tools like shader development, and 3D modeling software, but more importantly, it will attempt to contextualize what students already know as it relates to the specific challenges of working in 3D, then fill in the gaps between what they know and what they still need in order to work with these concepts.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 206 3D Modeling for Games (4 Credits)
This course is an introduction to 3D graphics for video games, starting with the foundations of 3D modeling and texturing in industry-standard tools. It focuses on building fluency with basic tools and techniques, as well as developing experience with aesthetic issues of look, style, and critical judgement in visual art.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 207 Intro to 3D Game Animation (4 Credits)
"Intro to Game Animation builds a foundation for animating in interactive media. From a basic overview to a deep dive into the animation process, this course will teach students how to craft a performance to create unique characters and tell a story. Students will be taught to look through the eyes of an animator, investigating how successful games utilize animation principles, and how these principles and techniques functionally serve overall game design. This class encourages students learn through practical experience, teaching familiarity with the animation principles in a 3D environment. This class is beneficial for an artist seeking to be an animator. This class will also benefit developers and designers by providing them a better understanding of the importance of animation and how it fits into the game development pipeline, providing a comprehensive understanding of the game industry as a whole."
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 212 Audio for Digital Games (4 Credits)
This course investigates aesthetic and technical aspects of sound for video games and interactive 3-D environments. Artistic implications of the technology are also explored from the perspective of the electronic composer and performer. Students will work with a game engine to create an immersive interactive environment. Additional topics include: Csound, Java and other relevant technologies. Completion of a final project, class presentation, as well as several weekly assignments is required.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 213 Music and Gameplay (4 Credits)
Music and Gameplay is an intensive course concerned with digital games in which the gameplay is fundamentally influenced by, or oriented around a musical system. In this course, students will engage with music games in a variety of ways: through critical play, design practice, and hands-on development. This multifaceted approach will foster an understanding of how interactive game mechanics can be linked to music expression.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 221 Intro to Games Journalism (4 Credits)
Games Journalism is a one-semester course that explores the history and practical application of games journalism as well as its impact on game development and the success or failure of games. The focus of the class is to help students understand how and why games journalism serves the people who play, make, market and publish games. Students will be asked to develop an understanding of the industry's history. Students will also practice a variety of journalistic tasks, including writing a feature, blogging news and live-streaming gameplay. Students will learn how to interact with journalists, what to expect from coverage and how to prepare. Although the focus of the class is to introduce students to the perspective of a games journalist, they will also learn how to pitch stories and write self-promotional emails on behalf of their own games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 231 Costumes as Games Controllers (3 Credits)
Costumes as Game Controllers is a multidisciplinary course that explores basic Physical Computing, Interaction Design and Prototype Fabrication when combining Wearable Technology with Game Design. Through building simple prototypes, students will learn how to use a variety of switches/sensors, how to build circuits for them, and various ways costumes can be embedded with them. Students will also study and discuss examples of existing interfaces and also brainstorm various scenarios the technology can be useful. In addition, numerous tools, techniques and materials for rapid prototyping will be explored.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 233 Beyond the Joystick (4 Credits)
Beyond the Joystick is an introduction to Physical Computing for
students interested in exploring and building alternative game controllers.
Through hands-on building out of simple prototypes, students will learn
how to use a variety of switches and sensors, how to build circuits for
them, and various ways Arduino and Processing can be used together.
We will study and discuss examples of existing interfaces and also
brainstorm various scenarios the technology can be used in. Students
must come with a working Arduino development board (preferably the
Arduino Uno, Duemilanove or Diecimila), a breadboard, jumper wire set,
and USB cable to connect Arduino to a laptop/computer. If the participant
does not have these materials, the Budget Pack for Arduino from Adafruit
is recommended (http://www.adafruit.com/products/193).
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 235 Designing Games for Kids (4 Credits)
Making games for kids ain't easy, but it sure can be rewarding. Kids can
be the harshest of critics and also the most appreciative of players.
Designing a game entails crafting a complex and dynamic system to
produce engagement. Designing games for kids demands that you do
all of that and make it look super simple. No 20 page booklets of rules.
No relying on the good will of the player to hold their attention. Stir in
the reality that a 4-year old is radically different from a 7-year old and
you've got a formidable, but exciting design challenge in front of you.
Designing games for kids forces you to strip your games down to their
essence honing your skills as an interaction designer. This class will lay
out a basic framework for game design. Then we'll use that framework
to analyze and design games for different age ranges, skill levels and
attention spans. We will also look at the interplay between games and
education, focusing on ways to draw out learning through scaffolding.
The class will focus heavily on production and playtesting. Students will
make a series of games for different age ranges.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 236 Big Screens (4 Credits)
This class is dedicated to experimenting with interactivity on large-
scale screens. Students will develop one project over the course of the
semester, culminating with a showing at InterActiveCorp's 120 X 12
foot video wall at their corporate headquarters on 18th and the West
Side Highway. A mock-up of the system will be available at the Game
Center for testing. Class time will be divided between independent project
development, critique, technical demonstrations, and field trips to IAC.
Group projects are encouraged.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 241 Game Design & the Psychology of Choice (4 Credits)
As game and interaction designers we create systems and choices that
can either prey upon our psychological foibles or help us avoid decision
pitfalls. It is our responsibility to understand how we decide, to consider
the ethics of the systems we create and to practice designing systems
in a purposeful manner. Game Design & The Psychology of Choice
will provide interaction and game designers with an understanding of
the factors that influence behavior and decision-making by looking
at the intertwining of cognitive psychology and economics through
the development of behavioral economics. These disciplines study
behavior on the individual and group level, often revealing some of the
why behind the rules of thumb and folk wisdom that game designers
come to intuitively. But understanding the why—why we fall into decision
traps; why certain tradeoffs tax our brain more than others; why we
are overconfident about our abilities; why certain decisions make us
uncomfortable—allows us to more purposefully apply our design craft,
both in and out of games. Finally, as a class, we will take what we learn
about how we think and create series of game experiences based around
key cognitive science concepts.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 242 Math for Game Designers (4 Credits)
Games have an intrinsic relationship with almost every branch of
mathematics. From the randomness described by probability theory
to formal logic for puzzles, games of every type are built out of math.
However, for many designers without a formal education in a quantitative
discipline, these areas can be esoteric and difficult to relate to games
at first glance. This can handicap a designer's scope, or force them to
rely on external help or tools. This course is designed to remedy that by
providing a toolkit of mathematical concepts, with an emphasis on their
direct applicability to game design and development. Students will gain
a grounding in mathematical concepts useful in game development, with
a focus on individual adaptation and implementation, not memorization.
This course of study is designed to empower game designers with
backgrounds in the arts or humanities with a core framework for
understanding math concepts to apply in games of all types.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 244 Economics for Game Designers (4 Credits)
Game Design and Economics have substantial overlap, as both
disciplines are about the study of complex systems. While the goals
of a game designer and economist might be different, the tools and
techniques are not. Approaches from Economics can be invaluable tools
to a game designer, helping you better understand, predict, and design
systems. This course is designed to introduce important concepts in
Economics, as they relate to, or are of use in, designing games. From
modeling in-game economies to incentives and game theory, students
will learn a variety of economic topics that are easily applicable to
games. This course is especially designed to empower designers with
backgrounds in the arts or humanities with a core understanding of
Economics that they can apply to their work.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 245 Spreadsheets for Game Designers (2 Credits)
All too easy to overlook, humble spreadsheet software can be a surprisingly versatile and valuable tool for any game designer's toolkit. This hands-on practicum for game designers and digital artists will explore spreadsheet software as a creative tool, exploring novel applications as well as professional examples from games and digital art. Students will learn how to use spreadsheets in an array of applications: As a prototyping environment, as computational graph paper, as databases for narrative scripting, as a procedural text generator, as a map-making tool and for pixel art, for storing information for other software environments, for systems modeling, gameplay analysis, and more. The course will culminate in making games and creative works using spreadsheets as the development environment. Spreadsheets are ubiquitous in game design, and proficiency with using them is frequently listed as a job requirement for design-oriented roles. However, most introductory materials for spreadsheets center on traditional accounting and finance applications, use-cases that are far removed from how designers use them (and far outside the interests of many artists). This course is designed to address that by focusing on spreadsheets in a variety of forms (Excel, Google Sheets, and Open Office) as a game design tool specifically to supplement your work in all other classes.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 251 Gameplay Programming Patterns (4 Credits)
Gameplay programming is a mess. Once you've factored out engine# level systems like graphics and physics, what remains is a complex tangle of concepts and relationships # often unique to your game # that can be difficult to express clearly in code. The goal of this class is to provide students with a set of techniques # applicable across different languages, genres and game engines # that can help tame that complexity. To achieve that goal student will develop a game in Unity over the course of the semester. Most weeks we will introduce a new technique and add a feature to the game that highlights the utility of the technique. Along with developing new features students will also be responsible for reviewing each other's code, as well as maintaining and revising their codebase. There will also be guest lectures by experienced developers who will discuss common issues they face during development and the techniques they use to resolve those issues.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 300 Code Lab 0 (4 Credits)
Understanding how to script your own functions, behaviors, and interactions is an important skill for game designers. This course will focus on developing fundamental programming skills using two popular Game Engines: Phaser and Unity. While these tools provide many useful structures for creating video games, game designers must understand how to write their own scripts to combine these structures and create their own algorithms in order to execute their visions. This course will emphasize increasing the student's comfort with coding, as well as their general understanding of programming, rather than specifics of either of the engines used.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 301 Biz Lab (4 Credits)
This course provides students who are looking to work in the games industry with a basic understanding of its economic components and drivers, so that they may better understand their role within it, whether as an employee of a larger company, a partner in an independent studio, an individual developer, or a freelance contractor. The goal of the class is to provide the practical knowledge and conceptual understanding students need to achieve the greatest degree of success and creative freedom throughout their career.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 302 Code Lab I (4 Credits)
Unity is currently one of the premiere Game Engines, used for developing games for almost every platform imaginable. It boasts a powerful GUI (Graphical User Interface) that allows for easy configuration and setup of games and an asset store that provides thousands of resources for game development. However, the heart Unity is the entity component model, which centers around game objects with components scripts added to them to control everything from display to behaviors to interaction. Using the C# programming language, we will explore how to use code that can go beyond the built in systems in Unity to create original and diverse games. In addition to simply learning to program, students in this class will explore models and algorithms useful for developing games. We will discuss how platforms, libraries, frameworks, and engines affect game design, in both empowering and limiting ways. Finally, we will discuss the history of digital games, how new tools have democratized the process of game development, and the costs and benefits of those trends.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 303 Code Lab 2: Code Literacy (4 Credits)
Code Lab 2 is a continuation in exploring how to craft game with programming. In Code Lab, we examined how to make games in openFrameworks, starting from scratch. This class will be a workshop, building off of that knowledge, but focusing on learning how to work with code that is already written. Students will learn to work with a new Integrated Development Environment (IDE), eclipse, learn to work with a version control system, and work in depth with Java and Processing. Over the course of the class, students will be given several versions of classic games (Pong, Space Invaders, Asteroids, etc.) that are incomplete or have an obvious bug. They will learn to read the code, identify how to correct the issue with the game, and then eventually modify it to make their own new version of the game. These skills are essential to work with code from other developers, whether they are members of the same team, open source projects, or examples provided in tutorials and readings.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 304 Advanced Game Programming (4 Credits)
Advanced Game Programming is intended to teach the advanced topics in gameplay programming required to take a prototype all the way to release. It's aimed at intermediate and advanced programmers - either from completing the Code Lab track, or students who joined the Game Center with programming knowledge. Over the course of the class, students will develop or enhance simple prototypes with a design need - which will include creating supplemental design tools, benchmarking, or feature requests. They will learn to diagnose root causes of common gameplay bugs and issues, how to design and implement robust and flexible systems (including inventory, network, save, and interaction systems), and how to support a larger design team as a primary programmer. The class will be taught as a seminar, with code reviews, best practices, and discussion touching current projects students are working on.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 310 Designing For: (2-4 Credits)
"Designing for" classes focus on working with a real-world client or partner, preparing students for professional collaborations with institutions, publishers and media companies beyond the game industry who partner with game developers on playable experiences. Outside partners have included museums, non-profit organizations, non-digital publishers and digital media platforms. In each version of this class, students will interact directly with representatives from one outside partner and collaborate with other students on a single semester-long project tailored to the client's goals, developing an initial idea from conceptualization through pitching and prototyping, based on criteria and feedback provided by the partner. Students will learn to follow a structured process for ideation, collaboration and prototyping, while taking care to understand the audience, content and goals of the partner organization's industry and the context of play. The semester culminates in a final presentation of playable prototypes to the partner.
Grading: Grad Tisch Graded
Repeatable for additional credit: Yes

GAMES-GT 311 Designing for Impact: Anti-Defamation League (4 Credits)
Working closely with a client, students first learn how to communicate with clients, market themselves, gather requirements for a project, and evaluate impact. Experienced designers guest lecture on best practices for producing meaningful creative projects by collaborating with clients. Students then develop several concepts to present to the client, pitch them to staff, and iterate on the concept based on feedback. Finally, students develop a prototype to present to the client at the end of the semester and possibly develop beyond.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 401 Vlaada Chvatil and the Modern Strategic Board Game (2 Credits)
Vlaada Chvátil is one of the world's most renowned and influential boardgame designers. He has designed everything from the colorful map-traversal game Travel Blog to the epic civilization simulation Through The Ages, yet running through all of his games is a signature style: cerebral, funny, and exuberantly maximalistic. Chvátil's work is deeply influenced by the "hot" medium of computer games yet highly aware of the peculiar strengths of his chosen "cool" medium. His games successfully synthesize the tabletop dialectic of the last two decades: "Eurogames", with their emphasis on elegance, strategy, and clarity, and "Ameritrash", with its emphasis on theme, direct interaction, and drama. This course will examine his work through the lens of another influential designer: Richard Garfield, creator of Magic: The Gathering, Netrunner, and other best-selling games. His recent textbook, Characteristic of Games, (co-written with Skaff Elias and Robert Gutschera,) is a landmark work in formal game analysis. We will use Garfield's conceptual frameworks and formal vocabulary to illuminate the important qualities of Chvátil's work. This course uses close analysis, discussion, readings, and papers, to enable students to master the challenging art of critical play – the ability to appreciate and articulate the unique aesthetic qualities of games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 402 Divergent Experiments: Roleplaying Games on the Margins from Dungeons to Do (2 Credits)
Dungeons & Dragons, first published in 1974, remains one of the most unavoidable influences on authored games; concepts it popularized, from the mechanics of hit points and "leveling up" to themes of conflict# ridden exploration in detailed fantasy worlds, have spread from the tabletop role#playing games that flourished in Dungeons & Dragons' wake to first-#person shooters, massively multiplayer online games, and even games on social networks intended for the broadest of audiences. In the roots of table#top roleplaying games, we can also find the beginnings of other, less widely adopted currents of experience and design: collaborative storytelling structured by process and rules; game dynamics that steer towards moral dilemmas that intertwine with competitive and cooperative mechanics; asymmetrical power structures that assign participants very different roles and blur the line between player and designer; and many more. This course will examine the history, practice, and current state of the art of independent role-#playing games, focusing on non#digital roleplaying games generally played by two or more participants in person. Selected games will be played in#class as well as assigned for out-of-#class play, and will emphasize works that explore themes, mechanics, and play dynamics beyond the most familiar and popular forms of fantasy role#playing game.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 404 Modern Tabletop Game Literacy (2 Credits)
Modern Tabletop Games are undergoing a renaissance, with designers building upon each other's innovations at a bewildering rate. The cornucopia of concepts in modern boardgaming can be daunting to a newcomer, yet any digital game designer is well advised to familiarize themselves with this parallel world, both to expand their "bag of tricks" and their notion of what a game can be. This class aims to familiarize students with a wide variety of "gateway games": relatively straightforward exemplars that will give the student a solid foothold when further exploring their respective genre in our extensive library of boardgames. While doing so, we will be discussing related short readings in Characteristics of Games, in order to give the design strategies being engaged a broader context.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 405 The Evolution of Narrative Immersive Sims: Looking Glass (2 Credits)
This course covers the works and legacy of Looking Glass Studios, one of the most influential video game studios of the 1990s. Through a series of seminal works including Ultima Underworld (1992), System Shock (1994), and Thief (1998), they defined and pushed the limits of first-person 3D gaming. In contrast to first-person shooters, Looking Glass' first-person games were experiments in simulation, storytelling, and interface that were years ahead of their time, and formed a vocabulary still used today for building stories in real-time virtual worlds. This is a history class with a forensic structure. Students will play through, discuss, read and write about Looking Glass' games, with emphasis put on their core "immersive design trilogy" of Ultima Underworld, System Shock, and Thief and how all these works influenced and revised each other. Students will also play other games of the era for context, read articles about and interviews with the developers, and complete a series of assignments to structure their understanding. The immediate goal is to foster a deep understanding of the work and influence of a seminal game company, the way one would for any other important group of artists in an art history context. The larger goal is to foster a set of skills for historical and critical analysis that is culturally situated and which complicates the notion of sole authorship.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 406 Theater Games for Game Designers (2 Credits)
Theatre Games for Game Designers delves into physical space and improvisational games. Using human bodies in space rather than pixels, this course is designed to give students a bit of history of theatre and performance art and the experience of playing theatre games and making performance. I hope to trip students into using their senses of intuition and imagination in order to bring emotion and storytelling to their game designs. Classes start with a brief physical warm up and proceed into theatre games, discussion of readings, and student presentations. Students will use intellectual, physical and intuitive ways of being. No performance experience is required. Wear comfortable clothes you can move in.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 407 Traditional Card Game Literacy and Design (2 Credits)
The traditional deck of cards is a device of unparalleled convenience, accessibility, and flexibility. As pocketable as a harmonica yet possessing the spectrum of a piano, this humblest of gaming platforms supports an amazing variety of games: historical classics, 20th century classics, and games by modern game designers, ranging from children's games to the most intense mental contests, along with everything in between. Every game designer should be conversant with the basic history of playing cards, possessed of a wide selection of games that can be played with a standard deck, and comfortable with using it as a design tool that often cuts straight to the heart of a game mechanic.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 408 Contemporary Trends in Board Game Design (2 Credits)
This class will go through modern tabletop mechanisms and techniques, enabling the student to quickly follow and digest the past few years in board and tabletop game design. It is assumed that the students understand more proven and fundamental concepts in board game design, like area control, worker placement, and deckbuilding.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 410 Breaking the Mold: Idiosyncratic Games and their Creators (2 Credits)
The democratization of game-making tools in the last few years has lead to an explosion of new games and digital artwork. This proliferation has not only produced many games that follow conventional approaches to design, but also a collection of artists and work that exists outside of the usual channels of commercially minded development. While many games are created with an eye towards what will play well to the market, public opinion, and critical taste, these creators producer work molded instead by their own specific aesthetic; their own idiosyncratic games. This course invites students to explore the work of these often little-known creators, learn from them, and incorporate the varied and diverse ideas they find into their own games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 412 Horror Games (2 Credits)
"This course covers the history, aesthetics, and cultural impact of horror games. The main emphasis is on horror video games, but includes some non-digital horror games as well. Students are exposed to seminal games in what came to be known as the "horror" and "survival horror" genres, such as Alone in the Dark, Resident Evil, Silent Hill, and Amnesia, tracing how their design aesthetics and thematic concerns were formed via their relationship with various key sub-genres of horror fiction in the wider media landscape. This course is for students interested in the culture and evolution of video game aesthetics and politics and who understand and value the practice of close reading and comparative analysis, the way any student in a traditional art history class would be."
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 413 Let's Play: Video Games on Video (2 Credits)
This course focuses on the culture and performance of video game streaming on popular video networks like YouTube or Twitch. Students will analyze certain streamers' videos and read ethnographic research/case studies on streaming communities, in preparation for running their own weekly game streams. Altogether, this class is intended as an introduction to performing game streams and video-based game criticism, as well as an acknowledgement that academic games programs have a public obligation to critically engage with streaming culture -- to promote a more respectful and inclusive community discourse around video games.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 414 Playing Well: Mastery and Ethics (2 Credits)
With the rise of esports, and the resurgence of local multiplayer games, a burgeoning part of the video game industry is concerned with designing competitive games and fostering competitive communities. And while there is plenty of advice on how to design these kinds of games, there is less examination of what it means to be a good player, in both the agonic and ethical senses. In Playing Well students will explore what it means to be a 'good' player, in both the sense of mastering a set of skills and in the sense of being an ethical member of a community. They will read and discuss the cutting edge research on skill acquisition, drawn from studies done of master level musicians, negotiators, and even athletes, as well as the social science behind common cognitive biases.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 415 Staged Combat: JRPG Battle Systems (2 Credits)
A system at the heart of the "JRPG" genre, students will critically play and examine a number of incarnations of the combat system contained within an array of titles from the past 40 years. Every 2-3 weeks will focus on a different subset of games: Classics (1980 - 2000), Contemporary (2000 - pres.), Independent, Cult and Experimental.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 500 Survival Skills (2 Credits)
Game design is a professional discipline that can lead in many directions. This course provides the student with an overview of the professional possibilities of being a game designer in the real world, including resume and portfolio preparation, finding and applying for jobs, and consideration of different kinds of careers, both in and outside of the games industry.
Grading: Grad Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-GT 504 Game Production Practicum (2 Credits)
The Game Production Practicum is a 1semester course that focuses on the skills for managing the production of games. The course is designed specifically for students concurrently working on a larger game project, such as an MFA thesis project, a BFA capstone project, or the MFA Studio 2 semesterlong project. Using this larger project as a case study, the Game Production Practicum will offer techniques for efficiently and effectively managing the realization of a creative vision as a completed game; including articulating goals, estimating time and resources, efficient documentation, and working with project 'stakeholders'. As a 2-credit course, the Game Production Practicum plays the role of a "support class" in which students interested in focusing on their metadevelopment skills can use a larger project as the occasion to refine their project and product management skills.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 910 Grad Seminar (2-4 Credits)
In this class a small group of students will work with the instructor to explore a set of relatedthemes through reading, research and discussion. These themes will cover a wide rangeof diverse topics at the edge of game design.
Grading: Grad Tisch Graded
Repeatable for additional credit: Yes

GAMES-GT 999 Independent Study (1-4 Credits)
Independent studies are student-initiated, individual or group projects focused on an exploration of a topic of the student/s choosing and supervised by faculty.
Grading: Grad Tisch Graded
Repeatable for additional credit: Yes

GAMES-GT 1001 Thesis I (6 Credits)
Thesis 1 is the first of two related courses, Thesis 1 and Thesis 2, in which Game Center MFA students create their thesis projects. The thesis classes are focused on supporting the students' work towards creating a finished project during their second year. A thesis project can take many forms, including a digital game, a game that exists off the computer, such as a card game or a sport, aa game that combines digital and non-digital components, such as a game that is played in real spaces incorporating the use of smartphones, a series of smaller games that represent the exploration of a set of related ideas, a game-related website, curated exhibition, or other criticism-oriented project, and a traditional research paper. Students will be encouraged to work in groups to create their thesis projects, but the possibility also exists for students to work by themselves. Because of the wide range of forms that a thesis can take, the thesis courses do not present a specific curriculum. Instead, they provide a context and structure to support and guide the students' research. The thesis process begins during the second semester of the MFA students' first year, as they generate thesis concepts and form into teams. These project concepts and teams must be approved during the spring semester of the students' first year by a Game Center faculty. Students will begin the Thesis 1 course with approved project concepts and teams.
Grading: Grad Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-GT 1002 Thesis II (8 Credits)
Thesis 2 is the second of two related courses, Thesis 1 and Thesis 2, in which Game Center MFA students create their thesis projects. The thesis classes are focused on supporting the students' work towards creating a finished project during their second year. Students will be encouraged to work in groups to create their thesis projects, but the possibility also exists for students to work by themselves. Because of the wide range of forms that a thesis can take, the thesis courses do not present a specific curriculum. Instead, they provide a context and structure to support and guide the students' research. Thesis 2 begins for a student only after completing Thesis 1. Students in Thesis 2 should begin the semester with an Alpha version of their game or game-related project, which is a fully functional version of the project that includes all major features and elements in some rough form.
Grading: Grad Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-GT 2601 Intro to Game Development (4 Credits)
Introduction to Game Development is a practical course that introduces students to the methods, tools and principles used in developing digital games. Over the course of the semester, students will work alone to create two digital prototypes or 'sketches', before building on them to produce a final polished game, using the lessons learned in the earlier prototypes. This is a hands-on, primarily lab-based course, and so the focus is on learning by doing rather than on reading and discussion.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 2605 Intro to Game Design (4 Credits)
Intro to Game Design is a one-semester course that explores the fundamentals of game design. The focus of the class is the actual creation of several non-digital (off the computer) games. Just as art students might take "fundamentals" classes in figure drawing or color theory as part of their education to become visual artists, this class remains rooted squarely in the basics. It focuses on the elementals common to all games that are fundamental for a game designer working in any format, from sports to board games to computer and videogames. Although the focus of the course is on the creation of non-digital games, digital games will also be discussed and one of the assignments is the creation of a digital game concept pitch.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 2606 Thinking About Games (4 Credits)
This class is an overview of the field of games that approaches them from several theoretical and critical perspectives. No special theoretical background or prior training is needed to take the course, but to have had a broad practical experience with and basic knowledge of games is a distinct advantage. Also, an interest in theoretical and analytical issues will help. You are expected to actively participate in the lectures, which are dialogic in form, with ample room for discussion.
Grading: Grad Tisch Graded
Repeatable for additional credit: No

GAMES-GT 2612 Game Development: Project Studio (4 Credits)
In Game Development Studio, students will work in teams to create a single digital game or other game project. Over the course of the semester, students will brainstorm, research, design, and develop a digital game. The philosophy of the course is learning through doing, and the majority of student work time will be spent in actual design and production, which will be structured and guided by the instructors. This production time will be supplemented by in-class exercises, readings and discussion, and talks from visiting game developers. At the end of the semester, each group will have produced a playable digital game. The course meets twice per week. The lecture meeting on Monday will be used for discussion and critique, in-class exercises, and talks from visiting game developers. The Thursday labs will be focused on group work time, and will include instruction in Unity 3D, the development platform for this course. Students should expect to put in at least 10 hours per week outside of these two class meetings.
Grading: Grad Tisch Graded
Repeatable for additional credit: No