GAME DESIGN (GAMES-UT)

GAMES-UT 101 Games 101 (4 Credits)
Typically offered Fall and Spring
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 104 American Computer Games (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 110 Intro to Game Studies (4 Credits)
Typically offered Fall, Spring, and Summer terms
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. The course will prepare the student to: Understand and discuss games from a theoretical perspective, as well as the components of a game; Apply new theories and evaluate them critically; Assess and discuss game concepts and the use of games in various contexts; Analyze games, and understand and apply a range of analytical methods.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 111 Intermediate Game Studies: Contemporary Discourse in Games (4 Credits)
Typically offered occasionally
Building off the groundwork from Intro to Game Studies, this course will connect theoretical material with contemporary popular discourse and how studies relates to the everyday in the games industry. Our class will be incredibly live, sourcing readings happening within 2 weeks of class so students can practice participating in professional discourse. This is useful for anyone interested in joining the games industry or adjacent fields to observe how theory meets practice and how critical thinking adds to popular thought.
Grading: Ugrd Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-UT 112 Tackling Representation in Games (4 Credits)
Typically offered Spring and Summer
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 115 Advanced Topics in Games Studies (4 Credits)
Typically offered occasionally
Advanced Topics in Game Studies is a research-focused course that examines methodological and foundational issues in the study of video games and explores issues relevant to current topics in video game culture, design, or theory. The class is structured as a seminar, with an emphasis on discussion and debate. Students are expected to actively participate in the development of video game theory, with specific attention to how video game studies evolve as a theoretical field, and how it interacts with changes in the design and culture of video games.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 120 Intro to Games Development (4 Credits)
Typically offered Fall, Spring, and Summer terms
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 a 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 121 Intermediate Game Development (4 Credits)
Typically offered all terms
This course reflects the various skills and disciplines that are brought together in modern game development: game design, programming, asset creation, and critical analysis. Classroom lectures and lab time will all be used to bring these different educational vectors together into a coherent whole; the workshop will be organized around a single, long-term, hands-on, game creation project. At the completion of this course, the student will be able to: 1) Describe typical work practice in game development. 2) Demonstrate competency through actual implementation of code and assets. 3) Work with a game engine, and understand the basics of how to build a game in the engine.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 122 Game Development: Team Studio (4 Credits)
Typically offered Fall
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 will be used for discussion and critique, in-class exercises, and talks from visiting game developers. The 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 123 Games Development: Solo Studio (4 Credits)
Typically offered occasionally
Game Development: Solo Studio focuses on the development of a single digital game. Students will work alone over the course of the semester to brainstorm, prototype, and develop a single digital game for web browsers. The philosophy of the class is learning through doing, and students will spend the bulk of their time through the semester working on the design, code, art and sound of their game, guided by feedback from instructors and students. At the end of the semester, each student will have produced a finished, releasable digital game. The course meets twice per week. The lecture meeting will be used for training in the game engine, discussion and critique, along with some structured exercises and visits from external critics. The lab focuses on solo work time, including some oneonone meetings with the TA and the instructor. Students should expect to put in 10 hours of work per week outside of these meetings.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 124 Intro to VR (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 125 Browser Game Studio (4 Credits)
Recent developments in web standards technology have begun a second wave of innovation in the space of browser games. The open web is the most accessible publishing platform in history, and browser games inherently focus on free-access business models, which makes browser games the most accessible, democratized form of game development. This class is about learning to understand harness that creative form, developing games for the broadest possible audience, that can disseminate themselves in the most rapid, viral of ways. Students will learn technical aspects of developing games for the web, but also focus on gaining a deep understanding of what kind of games are made possible by the platform. Unlike most of the studio classes in the Game Center, this class culminates in the publication of student projects to the open web, either on department servers or on the students' own servers. Like nearly all of the most popular browser games in the history of the medium, the games will be developed by one person working alone, producing systems, code, visual and sound design for the game. The course meets twice per week. The lecture meeting will be used for training in the game engine, discussion and critique, along with some structured exercises and facilitated interviews with successful developers of browser games. The lab focuses on solo work time, including some one-on-one meetings with the TA and the instructor. Students should expect to put in 10 hours of work per week outside of these meetings.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 126 Procedural Generation for Games (4 Credits)
Typically offered Fall
"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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 127 Action Game Studio (4 Credits)
The goal of this class to develop an understanding of the unique design considerations that apply to action games and action systems, and to cultivate an appreciation and understanding of the minutiae that differentiate and characterize action mechanics in a wide variety of games. To accomplish this the class starts with alternating weeks of detailed critical play and the production of prototypes built in response to these games. In the final six weeks of the semester, students move on to the production of a more substantial action game, culminating in a final game which should demonstrate intentional use of the concepts and techniques discussed in class.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 128 Pixel 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. Pixel 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 playable prototype games, one per week.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 150 Intro to Game Design (4 Credits)
Typically offered Fall, Spring, and Summer terms
This class is an intensive, hands-on workshop addressing the complex challenges of game design. The premise of the class is that all games, digital and non-digital, share common fundamental principles, and that under- standing these principles is an essential part of designing successful games. Learning how to create successful non-digital games provides a solid foundation for the development of digital games. In this workshop, students will: analyze existing digital and non-digital games, taking them apart to understand how they work as interactive systems; create a number of non-digital games in order to master the basic design principles that apply to all games regardless of format; critique each other's work, developing communication skills necessary for thriving in a collaborative field; explore the creative possibilities of this emerging field from formal, social, and cultural perspectives; develop techniques for fast-prototyping and iterative design that can be successfully applied to all types of interactive projects.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 151 Intermediate Game Design (4 Credits)
Typically offered Fall and Spring
Intermediate Game Design builds on the foundation of Introduction to Game Design to help build students' understanding of how game design works in a practical context. While Introduction to Game Design acquaints students with basic foundational concepts and ideas, Intermediate Game Design puts those ideas into action across four very different kinds of projects. These projects emphasize the professional context of digital game design.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 152 Game Design: Professional Practice (4 Credits)
Typically offered occasionally
Advanced Game Design focuses on the practical skills that working game designers need to get a job - and what they do at a company once they are there. Over the course of the semester, students will work on two full project proposals - each proposal including design documentation, production and schedule planning, and a prototype specification. In addition, students will take a handful of "game design tests" - based on actual game industry tests that are part of the hiring process. Along the way, we will be visiting a few NYC-based game companies, as well as discussing issues relevant to working game designers today. The goal of the course is to work on our communication, design, and planning skills, and get a sense for what it means to be a working game designer. Required: Intermediate Game Design.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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. 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.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 161 Introduction to Narrative Design (4 Credits)
Typically offered Fall
Narrative Design is an advanced game design course where students learn a variety of strategies to bring together game design and storytelling, both in table-top and digital games. Every assignment covers a different challenge when it comes to integrating systems design with storytelling. Students will also learn some of the basics of storytelling, such as character development, dramatic action, generating conflict, and world-building.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 180 Intro to Programming for Games (4 Credits)
Typically offered Fall, Spring, and Summer terms
Introduction to Programming for Games is a course that introduces students to the concepts, problems, and methods of computer programming, and how these apply to the creation of video games. The course assumes no prior programming knowledge, and is designed to touch on the basic principles of digital design in the form of computer code. There will be an emphasis on programming fundamentals; they will be motivated through the lens of designing and producing video games.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 181 Intermediate Programming for G (4 Credits)
Typically offered Fall and Spring
Intermediate Programming for Games is an undergraduate level course aimed at taking students further with their knowledge of creative coding. This builds upon existing skills developed during Introduction to Programming for Games. Students' skills within the Unity3D Game Engine with C# will be furthered, as well as their general procedural problem-solving skills and abstract programming knowledge. Throughout the semester, students be assigned weekly homework, as well as in-class practical work, or 'game jams'. While students will be creating small games in class weekly, there will also be two larger game creation assignments – one midterm, as well as one final game. Most importantly, this course takes the approach that building up a student's repertoire of advanced techniques in computer programming will expand their ability to express their artistic vision within their games. In addition, those students with a particular aptitude and interest for programming may also use this class to stepping stone towards a double major with computer science/game engineering. This class has Introduction to Programming for Games as a pre-requisite, and Introduction to Game Development as a pre-requisite or co-requisite.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 183 Introduction to Game Engines (2 Credits)
Introduction to Game Engines is a course intended for students who already have an understanding of programming fundamentals that introduces concepts, problems, and methods of developing games and interactive media using popular game engines. Game engines are no longer just used for the development of games, they have increasing gained popularity as tools for developing animations, interactives, VR experience, and new media art. Throughout the semester, students will have weekly programming assignments, using a popular game engine. There will be a final game assignment, as well as weekly quizzes and a final exam. The course assumes prior programming knowledge, if students do not have the appropriate prerequisites a placement exam may be taken. There will be an emphasis on using code in a game engine environment as a means of creative expression.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 201 Intro to Visual Communication (4 Credits)
Typically offered Fall and Spring
This course allows students to harness the power of visual language in order to convey messages and meaning. The elements of visual foundation that will be covered include components (color, texture, image and typography), composition, and concept. Although the class takes place in the Game Design department, we will be less concerned with visuals as they are applied to games and instead will look at visual communication across a wide range of disciplines, from visual art to graphic design to web and interface design. Although non-digital mediums will be addressed, the understanding and use of industry-standard software is also a primary goal. The class is about the importance of visual design, how it shapes our culture. The students will learn about and discuss widely-practiced methods of visual communication, and then find their own voice through developing their own works, driven by a clearer understanding of their own tastes and interested fields.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 202 Art Direction for Games (4 Credits)
Art Direction for Games builds on the foundation for visual thinking and literacy that begins in the introduction course, Intro to Visual Communication. Students will be taking the fundamentals and literacy gained in that class, and applying the theories to practical, objective ends. In this course students will individually and collaboratively art direct 3 game projects, from concepting, development to execution. This courses aims to expand student's knowledge and expertise over dynamic visual systems on and off the computer, with a special emphasis on visual design for digital games.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 204 Intro to 2D Animation for Games (4 Credits)
Typically offered Fall and Summer terms
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 208 Shader Lab (4 Credits)
Shader Lab is an introduction to shaders for game designers that are artists first, and technicians second. This course attempts to bridge gaps in the necessary knowledge and establish the contextual foundation to allow students to make sense of the disparate sub-disciplines necessary to meaningfully express themselves aesthetically in a rendered environment. Ultimately, Shader Lab is a primer for students seeking to create unique and expressive aesthetics for their digital games. The course empowers designers by providing a conceptual and functional understanding of 3D rendering in order to enable the design and implementation of their personal style.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 212 Audio for Digital Games (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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. Throughout the course, we'll be drawing inspiration from a variety of music games across 3 major categories:
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 221 Intro to Games Journalism (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 241 UI/UX for Games (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 243 People Games: Social Simulation and AI (4 Credits)
The technology of games has evolved to very effectively simulate physics, and photorealistic representations – however, simulations of people and their interactions remain underexplored, particularly in mainstream practice. Seminal game designer Chris Crawford infamously dubbed these as 'people games'. The pursuit of games which address this requires not only technological understanding of the problem space, but also a critical and humanistic one. This is a mixed game development and critical play focused course, looking mainly at games which feature simulated autonomous characters (or "agents"). Students will examine existing games spanning the last thirty years, and, use this to inform their own practical projects. This will further students' practice with game development tools such as Unity and C#, and begin to introduce AI techniques.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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 and balancing, to incentives and game theory, students will learn a variety of economic topics that 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 their work.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 261 Biz Lab (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 312 Games and Players (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 323 Mobile Game Studio (4 Credits)
Mobile Game Studio is a class where students learn to make games for modern touchscreen-based 'smartphones': either on the Android or iOS operating systems and hardware. The class is focused on practicing game design and development within the particular constraints imposed by the hardware, software and other relevant externalities on these platforms.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 324 XR Studio (4 Credits)
The spectrum of Extended Reality (XR) – encompassing Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) – brings with it several opportunities for new possibilities for game design, interactive storytelling, and more. While implementations of these technologies and associated theory have existed for a number of years, the recent technical and commercial resurgence means that developing skills in critical thinking and creative aptitude with regards to AR and VR is incredibly timely. To this end, rather than studying only contemporary discourse around XR technologies which frames it as a new development or passing fad, this class will also look at more well-established principles of both AR and VR – such as object presence and other aspects of existing theory. Furthermore, it analyses such technologies through a theoretical and critical lens, placing them within the wider history of the arts.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 325 3D Game Studio: Unity (4 Credits)
Unity is a practical course that introduces students to the methods, tools and principles used in developing three-dimensional games. This class builds on the foundations laid by the Intermediate Game Development course, which teaches students the 2D basics of the popular Unity game engine. Over the course of the semester, students learn all the technical and design fundamentals that are peculiar to the development of contemporary 3D games: geometry, light, materiality, the camera, use of 3D space, and ways of seeing. The focus in this class is on solo work, since it aims to build the specific set of skills that students will need to make 3D games in later classes. Only basic code skills are required, however. Unity is an industry favorite for small-to-mid sized studios. Compared to its main competitor, Unreal Engine, it is lighter-weight and more agnostic regarding a game's design. It is better suited than Unreal for experimental, exploratory work, and for work that targets mobile platforms.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 326 3D Game Studio: Unreal (4 Credits)
3D Game Studio: Unreal is a practical course that introduces students to the methods, tools and principles used in developing three-dimensional games. This class builds on the foundations laid by the Intermediate Game Development course, but moves into the popular Unreal engine as a technical platform instead. Over the course of the semester, students learn all the technical and design fundamentals that are peculiar to the development of contemporary 3D games: geometry, light, materiality, the camera, use of 3D space, and ways of seeing. The focus in this class is on solo work, since it aims to build the specific set of skills that students will need to make 3D games in later classes. Only basic code skills are required, however.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 329 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: Ugrd Tisch Graded
Repeatable for additional credit: Yes

GAMES-UT 352 Board Game Design (4 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 401 Chvatil: Strategic Board Game (2 Credits)
Typically offered occasionally
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. His games successfully synthesize the tabletop dialectic of the last two decades. This class uses 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. 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 402 Roleplaying on the Margins (2 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 403 Intro to Star Craft (2 Credits)
Typically offered not typically offered
This class will involve the development of a high level understanding of the real time strategy game, Starcraft 2, including optimizing early gameplay, mastering tactical maneuvers and strategies, and real-time strategic decision making. At the same time it will touch on the development of the industry of e-sports and the design of high-level multiplayer games. Finally, the class will emphasize honing the universally valuable skills of critical thinking, mental discipline, and understanding complex systems and data in real-time, the very skills that make for a world class Starcraft player.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 404 Modern Tabletop Games Literacy (2 Credits)
Typically offered Spring
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 405 The Evolution of Narrative Immersive Sims: Looking Glass (2 Credits)
Typically offered Fall
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 406 Theater Games for Game Designers (2 Credits)
Typically offered occasionally
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 407 Traditional Card Game Literacy and Design (2 Credits)
Typically offered Fall
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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 408 Contemporary Trends in Board Game Design (2 Credits)
Video game designers are constantly taking inspiration from board games, especially as modern board games boom. Digital games like Slay the Spire and Hearthstone wear their analog influences proudly on their sleeves. But the board game industry is growing at an enormous pace. With that growth, trends and design techniques emerge and become embraced at a dizzying speed. It's incredibly intimidating to someone who doesn't have perspective in the board game rabbit hole. 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 411 Games in Narrative: Poker, Chess and Go (2 Credits)
The canon of contemporary literature, theater, film and television is rife with references to games: board games (chess, go,) card games (poker, bridge, whist, hearts) dominoes, backgammon, Mah Jongg, Scrabble, Monopoly, etc. Games figure prominently in novels, short stories, poems, plays, films, articles and books. They make an appearance contextually (characters playing games) and structurally (novels in the form of games). Poets ruminate on games as metaphor. Games in plays, television shows and movies are centerpieces for dramatic conflict. And non-fiction writers limn the contours of games not only with guides to best practices and play, but also with insight into cultural, historical, sociological phenomena. They are the subject of Ph.D. theses. The CIA, the NSA, the Rand Corporation and other major think tanks study games for intelligence-gathering techniques. Poker, Chess and Go represent three cultural pillars which are continually represented in media. The representations of these games in literature and other media helps us understand the cultural status of these games, as well as provide a lens to understand a variety of socio-historical contexts.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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 schedule of 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 more inclusive community discourse around video games.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 415 Staged Combat: JRPG Battle Systems (2 Credits)
Course description (optional): 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: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 500 Survival Skills (2 Credits)
Typically offered Fall
Game design is a professional discipline that can lead to many careers. This course provides you 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 game industry. The main purpose of this class is to expose you to a wide variety of career options. We'll do that mostly through guest speakers sharing their experiences entering the workplace. Along the way, we will gain a concrete understanding of how the game industry works from the point of view of charting a professional life after school.
Grading: Ugrd Tisch Pass/Fail
Repeatable for additional credit: No

GAMES-UT 501 Principles of Game Feel (2 Credits)
Typically offered occasionally
Game feel is a crucial aspect of modern videogame design, but it's not as widely understood as other parts of the discipline. In short, game feel is the tactile experience of interacting with a game; the sensation of motion created by a game's responses to input. This course will introduce students to the theory behind game feel, as well as the basic mathematical and physical principles that will allow them to implement these ideas in their own work. Throughout the course, students will examine existing games for their varied approaches to game feel, and will create simple prototypes to explore concepts like acceleration, rhythm, and camera behavior. At the end of the course, students will use their accumulated knowledge to polish the game feel of one of their existing games, or optionally to create a small game that uses game feel as its primary means of expression. Students will then present their work during the final session.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 503 Business of Video Games (2 Credits)
This class discusses the interactive entertainment industry and looks at how strategy and innovation inform the development, distribution, and marketing of video games.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 504 Game Production Practicum (2 Credits)
Typically offered Fall
The Game Production Practicum is a 1 semester 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 semester-long 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 meta-development skills can use a larger project as the occasion to refine their project and product management skills.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 601 Major Studio Fall (4 Credits)
Typically offered Fall
Major Studio Fall is the first of two Major Studio classes, which are taken by all Junior students majoring in Game Design at NYU. These classes are designed to prepare students for their Capstone projects by giving them time to work independently producing games, first alone on small prototype projects, and then in larger groups, on projects of larger scope. The primary aims of Major Studio are to give students more experience in concepting and developing games, and to build up a set of work which could be used in a portfolio or developed into a Capstone project.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No
Prerequisites: GAMES-UT 121 AND GAMES-UT 151.

GAMES-UT 602 Major Studio: Spring (4 Credits)
Typically offered Spring
Major Studio Spring is the second of two Major Studio classes for Junior students majoring in Game Design at NYU. Alongside Major Studio Fall, these classes are designed to prepare students for their Capstone projects by giving them time to work independently producing games, first alone on small prototype projects in the Fall, and then in larger groups, on projects of larger scope in the Spring. The primary aim of both Major Studio classes are to give students more experience in concepting and developing games, and to build up a set of work which could be used in a portfolio or developed into a Capstone project. Major Studio Spring is designed for students to work on larger teams (4 students or more); the goal of the class is to expand on a pre-existing prototype developed in Major Studio Fall or another game development class.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No

GAMES-UT 900 Internship (1-12 Credits)
In internships, students work in professional, game or game-adjacent businesses or organizations for a variable number of hours and/or week, with course credit being determined by those hours and weeks. Whether there is compensation and, if so, the amount, varies as well.
Grading: Ugrd Tisch Pass/Fail
Repeatable for additional credit: Yes

GAMES-UT 999 Independent Study (1-4 Credits)
Typically offered Fall, Spring, and Summer terms
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: Ugrd Tisch Graded
Repeatable for additional credit: Yes

GAMES-UT 1000 Capstone (4 Credits)
Typically offered Fall and Spring
A capstone project is the culminating work of an undergraduate's time at the NYU Game Center. In this class students will be guided through a flexible but structured process in which they bring their vision for their final projects from prototype to finished state. Each project will be held to a series of milestones that will lay out a roadmap for its development as well as provide students with junctures at which they can reflect and course correct. Students will plan and document their development process from beginning to end, setting expectations for each milestone and laying out possible directions for art, audio, and public relations. Finally, projects will be refined with constant feedback and playtesting throughout the semester from colleagues, instructors, and outside guest critics. A capstone project is a student's first step in their career beyond college, and this class is designed to help them make an impressive and exciting first impression on the world.
Grading: Ugrd Tisch Pass/Fail
Repeatable for additional credit: Yes

GAMES-UT 9150 Intro to Game Design (4 Credits)
This class is an intensive, hands-on workshop addressing the complex challenges of game design. The premise of the class is that all games, digital and non-digital, share common fundamental principles, and that under- standing these principles is an essential part of designing successful games. Learning how to create successful non-digital games provides a solid foundation for the development of digital games. In this workshop, students will: analyze existing digital and non-digital games, taking them apart to understand how they work as interactive systems; create a number of non-digital games in order to master the basic design principles that apply to all games regardless of format; critique each other's work, developing communication skills necessary for thriving in a collaborative field; explore the creative possibilities of this emerging field from formal, social, and cultural perspectives; develop techniques for fast-prototyping and iterative design that can be successfully applied to all types of interactive projects.
Grading: Ugrd Tisch Graded
Repeatable for additional credit: No