

# Game Development

## Equipping students for success in a competitive industry.

The video game industry is massive and global, earning over \$40 billion in the US alone last year. Market trends show it will continue to be a major employer of well-paid, highly skilled professionals.

Our unique Game Development program is unlike any other program. You will gain the technical skills you need to develop video games and knowledge about the entrepreneurial aspects of the business—all while gaining experience and developing your specialization in a range of team-based activities.

Beginning as early as your second year, you will work on three intensive projects to create and market video games. As in the industry, you will work within an entrepreneurial and interdisciplinary team environment to drive the projects from concept stage to promotion—creating business models and monitoring costs and revenues. In addition to building your portfolio through experiential learning, TWU's liberal arts core and focus on holistic education will equip you to be a valuable contributor and leader in your field.

ID	COURSE	CREDITS
GAME 110	<p><b>GAME 110 - Introduction to Game Development   2022-2023</b></p> <p>An introduction to the processes of game development, whether technical, artistic, managerial, or fiscal. Students will engage theory, investigate tools, and learn systems necessary for them to successfully participate in development projects in subsequent years.</p>	3
GAME 140	<p><b>GAME 140 - Introduction to Game Design   2022-2023</b></p> <p>An intelligent, playful course in which students will apply the history, theory and practice of game design to the creation of games. While the material of this course is relevant to video game design, students will primarily focus on board and card games.</p>	3
GAME 231	<p><b>GAME 231 - Foundations of Animation   2022-2023</b></p> <p>An introduction to the foundational principles and practices of animation. While students will focus on 2D animation in frequent practical exercises, their acquired skills and theory will be foundational for doing 3D animation. This course is a prerequisite for any subsequent animation courses.</p>	3
GAME 232	<p><b>GAME 232 - Foundations of 3D Graphics   2022-2023</b></p> <p>An introduction to the foundational principles and practices of 3D computer animation. Working in</p>	3

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	a lab setting, students will develop the basic conceptual and technical tools necessary to create and modify elements for game development.	
GAME 240	<p><b>GAME 240 - Game Design for Video Games   2022-2023</b></p> <p>A continuation of GAME 140 - Introduction to Game Design. Students focus on applying game design principles explicitly to the video game medium. By engaging in constant design projects and exercises, students will broaden their knowledge of design theory and develop the necessary skills to rapidly prototype and test game design ideas.</p>	3
GAME 290	<p><b>GAME 290 - Game Development Project   2022-2023</b></p> <p>A project-based course in which teams of students will work together to create and release simple video games. Each student will contribute on the basis of their specialized training to this point in the program. This is the first of three Game Development project courses, and its primary goal is to introduce students to the experience of working on video games.</p>	3
GAME 320	<p><b>GAME 320 - Video Game Sound and Music   2022-2023</b></p> <p>A survey of the history and current use of sound and music in video games. Students will investigate how audio in video games is unique and where it draws on other media, as well as learn about the tools and best practices used in the creation of sound and music in video games. Through this study, students will become more aesthetically informed critics of the use of audio in video games.</p>	3
GAME 321	<p><b>GAME 321 - Sound Design   2022-2023</b></p> <p>Covers the core components of effective sound design, such as sound effects, voice recording and mixing. This is a hands-on studio-based course in which students will engage in frequent hands-on exercises and in-class activities in order to prepare them to contribute the non-musical audio elements necessary for video game development. Students who are not part of the Game Development program will also benefit from taking this course, as it is also applicable to nongame forms of media production.</p>	3
GAME 322	<p><b>GAME 322 - Advanced Sound Design   2022-2023</b></p> <p>Continues the topics of GAME 321 - Sound Design, goes deeper in those topics (sound effects, voice recording, mixing), and adds extra emphasis on studio direction. This is a hands-on studio-based course in which students will engage in frequent hands-on exercises and in-class activities in order to gain the skills and aesthetic judgment necessary to excel in their creation of non-music audio elements of video games. Students who are not part of the Game Development program will also benefit from taking this course, as it is also applicable to non-game forms of media production.</p>	3
GAME 323	<p><b>GAME 323 - Interactive Sound Design   2022-2023</b></p> <p>Covers the issues and technologies unique to creating and deploying sound and music for video</p>	3

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	<p>games and other interactive digital media. In this studio-based course, students will engage in frequent exercises and projects in order to develop the advanced knowledge, aesthetic judgment, and digital audio skills that will help these students contribute effectively to sound design in Game Development projects. Students must have at least a basic understanding of programming to participate in this course.</p>	
GAME 331	<p><b>GAME 331 - Video Game Art   2022-2023</b></p> <p>A critical evaluation of the deployment of visual art in video games. The student will develop a broad appreciation for the incredible variety of video game art and consider the spiritual, moral and ethical issues surrounding visual design choices in game development. The student will engage in theories and tools that will enhance student participation in development projects.</p>	3
GAME 332	<p><b>GAME 332 - Advanced Animation Projects   2022-2023</b></p> <p>A continuation of the foundational animation courses. Students will research animation techniques and aesthetics and then develop a plan in consultation with the instructor for a semester-long project. Students will build on their existing animation skills and aesthetic judgement as well as gain a wider appreciation for what is possible with animation, whether computerized or otherwise.</p>	3
GAME 340	<p><b>GAME 340 - Advanced Game Design   2022-2023</b></p> <p>An in-depth look at game design theory and aesthetic criticism pertaining to video games. Through the use of significant projects, students will further develop practical design skills, and investigate theoretical topics such as the ability of games to communicate, simulate and persuade. Students will examine the connections between game design and faith, spirituality, ethics, morality, and the Christian tradition in order to become game designers who are thoughtful shapers of culture rather than simply entertainment technicians.</p>	3
GAME 341	<p><b>GAME 341 - Interactive Storytelling   2022-2023</b></p> <p>An in-depth look at the various forms of writing for video games. Students will study and practice game story scripting, writing for interface, dialogue and narration, as well as video game technical writing. Students will develop skills to handle the many writing tasks necessary for a game development project. Students who are not part of the Game Development program will also benefit from taking this course, as it is also applicable to non-game forms of media production.</p>	3
GAME 350	<p><b>GAME 350 - Video Game Programming   2022-2023</b></p> <p>An in-depth hands-on study of the technologies critical to game development. Through frequent exercises and projects, students will develop the skills and knowledge necessary to program video games—most importantly, the game engines currently employed by the TWU Game Development Program. Student software developers will study industry best practices and critically consider how best to do their work with the highest ethical and moral standards.</p>	3
GAME 351	<p><b>GAME 351 - Artificial Intelligence for Video Games   2022-2023</b></p>	3

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	<p>A study of the application of Artificial Intelligence (AI) to video games. Students will investigate the theory behind effective AI in games, and with frequent exercises and projects will practice programming AI as much as possible. Student software developers will gain the abilities necessary to make key contributions to the creation of video games in the Game Development project courses.</p>	
GAME 360	<p><b>GAME 360 - The Business of Video Games   2022-2023</b></p> <p>An overview of business practices unique to the video game industry, including finance, marketing, management, intellectual property and business models. In short, students will develop the knowledge and skills necessary to run the business aspects of the Game Development Project courses. Students will also critically examine ethical and moral issues in the games industry.</p>	3
GAME 380	<p><b>GAME 380 - Game Development Field Placement   2022-2023</b></p> <p>Game Development students engage in practical work experience with game development companies. Students will primarily learn through doing work for a professional company, but they will also have readings and class discussions on preparation for professional careers. Students should take this course near the end of the program so that they have developed sufficient skills to be valuable contributors in a professional workplace.</p>	1, 2, 3
GAME 390	<p><b>GAME 390 - Game Development Project II   2022-2023</b></p> <p>An intermediate project-based course in which teams of students will work together to create and release video games that are more advanced and polished than the projects from GAME 290. Each student will contribute on the basis of their specialized training to this point in the program. This is the first course of a two-part project course that will run for two semesters during the students' third year.</p>	3
GAME 391	<p><b>GAME 391 - Game Development Project II   2022-2023</b></p> <p>An intermediate project-based course in which teams of students will work together to create and release video games that are more advanced and polished than the projects from GAME 290. Each student will contribute on the basis of their specialized training to this point in the program. This is the second course of a two-part project course that will run for two semesters during the students' third year.</p>	3
GAME 470	<p><b>GAME 470 - User Experience Design   2022-2023</b></p> <p>An in-depth examination of the principles of user experience design and how they apply to game development. Students will engage a wide range of theory in psychology, sociology, art and interdisciplinary design thinking that is relevant to structuring the game environments and interface game players encounter. Both technically and artistically-inclined designers will engage in challenging readings, exercises and projects so that they are ready to contribute significantly to the Game Development project courses.</p>	3

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GAME 471	<b>GAME 471 - Video Game Aesthetics   2022-2023</b> An advanced consideration of aesthetic theory relevant to video games. Students will investigate the unique expressive, creative and artistic aspects of video games, and will search for and critically the best works of this relatively young medium. Students will use case studies and advanced theories in Game Studies and other artistic disciplines in order to expand the students' capacity to make video games with artistic integrity.	3
GAME 490	<b>GAME 490 - Game Development Project III   2022-2023</b> An advanced project-based course in which teams of students will work together to create and release ambitious video games. Each student will contribute on the basis of their specialized training to this point in the program. This is the first course of a two-part project course that will run for two semesters during the students' last year. The course is the capstone of the Game Development program.	3
GAME 491	<b>GAME 491 - Game Development Project III   2022-2023</b> An advanced project-based course in which teams of students will work together to create and release ambitious video games. Each student will contribute on the basis of their specialized training to this point in the program. This is the second course of a two-part project course that will run for two semesters during the students' last year. The course is the capstone of the Game Development program.	3