



## UNDERGRADUATE CERTIFICATE IN GAMES AND IMPACT

The Certificate in Games and Impact is intended for undergraduate and graduate students with a desire to become change agents in their current and future areas of interest, study and training. The Certificate provides a solid grounding in the theory, design and use of games as tools for effecting change in education, health, journalism, and social justice, among other fields. For this reason, it is appropriate for students in a wide range of majors, including interested students in design and programming.

Students will study the ethics of design and consequences, both intended and unintended, how games can lead to social change by improving understanding of complex global systems, transforming conflict and building skills in problem recognition and creative solution design. Certificate students will work on real games, with feedback from skilled professionals and using expert tools, and learn how to design, test and evaluate their impact in real-world environments.

Students may tailor their project work to issues and topics relevant to their fields of study. Business students may develop and evaluate games that apply sustainable principles of the triple bottom line to transform thinking about product development and the supply chain. Health care students will be able to make games that reinforce wellness principles and train practitioners. Social justice advocates will help make and field games to raise awareness and defuse tensions in global conflict areas. Across the courses is a focus on the full lifecycle of using games for impact, with an appreciation of games as a powerful form of intervention for addressing the world's greatest social, cultural, scientific, and economic problems.

The Certificate is a full plan of work and study, building from an introductory core course through a customized capstone project. Students will be expected to demonstrate expertise in applying games for impact principles to their core areas of interest and solid skills in at least one facet of the process of designing, implementing and evaluating games for impact as part of their capstone work. The Certificate is a significant commitment to a sequenced set of courses across a student's undergraduate years, rather than a series of courses that may be taken in passing. Where possible, courses have been designed to meet additional graduation requirements (i.e., General Studies): please check current course listings for specific qualifications.

In addition to a tightly focused group of courses, taught by Center-affiliated faculty, the Certificate provides opportunities for students to work directly with activists, entrepreneurs and change agents in their fields of interest on real-world projects, not just classroom exercises. Certificate students will have regular access to ASU's Games for Impact game archives, an innovation lab, library of games, and development resources. They will have special access to events at the Center for Games and Impact, including the opportunity to meet and work with professional designers in special events for Certificate students only. Completion of the Certificate will enroll students in a lifelong network of professional contacts and resources to help them launch and grow their own careers.

## Plan of Study (15---18 credits)

**EDT 460/560: Games, Technology & Society (3 credits):** This course provides an introduction to the role and significance of digital games in society, and to the process of designing games for impact, in areas such as education, healthcare, and social activism. Students will explore general theories about the relationship between technology and society, using games as examples, as well as develop a better understanding of methods that take a systemic, contextualized approach to designing games for impact. Students will play and analyze existing impact games as well as conduct a landscape analysis for an impact game on a topic of their own choosing. This course will be open to all students in any major.

**EDT 461/561: Understanding Games for Impact (3 credits):** Principles of applied games design, focusing on analysis of impact games across a range of fields. Students will use theories of learning, impact and social entrepreneurship to understand the potential value and implementation challenges of particular games. There is a focus on inputs, outputs, and outcomes, especially unintended consequences of actions in complex social and technical systems. Project work may focus on an in---depth case study of prior games or of current work developed by the Center.

**EDT 463/563: Games For Impact: The Full Life Cycle (3 credits):** This course focuses on understanding the complete life cycle of impact games, from perceived need through design to evaluating impact. Attention will be paid to the role of impact games within an institutional ecology of change agents (including design studios, financiers, non-governmental organizations and audience/targeted populations) and to the ecology of implementation where the games will be used. Course work will highlight ethics of game-based learning, unintended consequences of impact interventions, and how to involve stakeholders in the design process. Students will collaboratively workshop an original impact game concept and publishing plan t to address a key 21st-century challenge.

**EDT 462/562: Designing Games for Impact (3 credits):** This is an introduction to the game design process for change agents and future managers of applied game design projects. Students will work collectively to create an impact games concept, prototype the game, create and play---test it, and where possible, evaluate its effectiveness. The course is not intended only for students pursuing a major or career in games design and programming, but is aimed at giving all students an understanding of how the design process actually works. The core focus is to take the insights and lessons from the previous courses and place them in a design trajectory, potentially setting up the capstone project.

**EDT 494: Capstone Project (3-6 credits):** The Capstone is a major project developed by the student in close consultation with Center faculty. Where possible, Certificate students will be assigned to specialized roles on a Capstone team alongside other students for a large---scale project. Capstone work must demonstrate an understanding of impact games, their role, methodology for evaluating their effect, and tight linkage to the student's field of interest. This course is open only to students enrolled in the Certificate program. However, capstone work can be completed with consultation and under co---guidance from an advisor in another school.