



NEW JERSEY INSTITUTE OF TECHNOLOGY
COLLEGE OF ARCHITECTURE AND DESIGN

DESIGN FOR PUBLIC GOOD

COURSES: DD 464 – Digital Design Studio III (5 credits)
PROGRAM: Digital Design/School of Art + Design
LOCATION: Fourth-year studio course/spring term (undergraduate)
INSTRUCTOR: Augustus Wendell

DESCRIPTION: The design course is a five-credit studio in the final semester of the four-year undergraduate program and, as such, is intended to provide students an opportunity to concentrate on particular areas of interest prior to graduation. As a general program, students have been exposed to video and animation, gaming, interactive graphics, aspects of motion picture production, web design, and physical computing. Students are expected to propose their own projects in which they will individually create a narrative-based and/or interactive project focused on a topic that provides, in some way, for the public good. Topics suitable for projects include (but are not limited to) public service announcements against bullying, warnings against distracted driving (or walking), promoting responsible parenting, advocacy for LGBTQ community including same-sex marriage, recycling, constructed response to climate change, or mental health awareness and/or support and information for students.

PROJECT: Optional projects include the creation of a motion-based visual narrative (video or animation) or a physical/interactive research-based or speculative solution that focuses on a topic of the public good. Specific requirements vary based on the specific area of digital concentration. Students may work in the areas of 3D/2D animation (with motion capture), 3D illustration and environmental design, live-action production, branding/identity/print/marketing/advertising for public education, or interactive gaming.

REQUIREMENTS: Students working on an animation will be expected to produce a 30 to 40 second HD movie with soundtrack and full post-production processing. Students working on 3D illustration or environment design are expected to create one high quality three-dimensional digital environment. Presentation will include a minimum of 8 high resolution images with at least two different lighting scenarios. All assets must be custom designed. Live action production must result in a 40 to 60 second HD movie with multiple compositing and camera tracking/matching layers. Students who are producing marketing materials must produce a multifaceted marketing campaign ranging from banner ads to be placed on websites, to print advertising, to a video for placement on social media. Students creating a publicity or branding campaign must produce full implementation manual, design of logos and color schemes, publicity materials and guidelines for use and creation of additional related print and/or online publication. Projects in this category are most effectively realized via collaboration with a non-profit organization that has a product or service to distribute (like the Center for Counseling and Psychological Services at NJIT). Gaming students are expected to produce a fully functional working prototype of the game with basic game mechanics/play, and several original assets and textures. As part of the process, students will develop storyboards, game tree, define the target market, and produce a written description with game instruction and play manual. HCI/Physical Computing projects (either research-based or speculative) must include both digital and physical components. These may include projects in mobile/ubiquitous computing, augmented reality, and adaptive environments.

OBJECTIVES: (1) To formulate a conceptual and artistic position on topics of digital designs relevant to the student concentration area (entertainment, interactive graphics, physical computing and medical applications). (2) To understand the pipeline of the digital design production and demonstrate an ability to effectively use it. (3) To develop a sophisticated and complex project that integrates multiple formats of digital media such as modeling, rendering, video editing, interactivity, and graphic design. (4) To link artistic and creative endeavors to topics of broader social, cultural, or intellectual reach in order to use skills learned for the public good. (5) To give students, where appropriate, an opportunity to work with real non-profit clients.

REFERENCES: (1) Online tutorials for various software applications are available with a College subscription to *Pluralsight* as are instructional books and manuals in the reference section of the Littman Architecture and Design Library. (2) Lupton, Ellen and Jennifer Cole Philips. *Graphic Design: The New Basics* (New York: Princeton Architectural Press, 2008). (3) Software used included *Adobe Photoshop*, *Adobe Illustrator*, *Adobe After Effects*, *Adobe Premiere Pro*, *Corel Draw*, *Corel Painter*, *Autodesk Maya*, *Autodesk 3DS Max*, *Blender*, *Cinema 4D*. (4) Motion capture equipment by Vicon.