



**NEW JERSEY INSTITUTE OF TECHNOLOGY  
COLLEGE OF ARCHITECTURE AND DESIGN**

***MUSIC VIDEO – MOTION CAPTURE TEST FRAMES***

**COURSE:** DD 464 – Digital Design Studio III (5 credits)  
**PROGRAM:** Digital Design/School of Art + Design  
**LOCATION:** fourth year/spring term (undergraduate)  
**INSTRUCTORS:** Augustus Wendell

**DESCRIPTION:** The final semester for the Digital Design program focuses on a studio with student-initiated projects guided by the studio critic requiring independent research in order to prepare the student for employment or graduate study in the specific sub-discipline of interest. The secondary focus of each project is to create something for the “public good” – from a public service announcement to an application of game design in support of biomedical therapeutic research.

**PROJECT:** Use of motion capture for a music video. The project involved the creation of a music video with an emphasis on the devastation pollution causes on the world’s oceans. The music video includes three-dimensional character modeling, environment modeling, application of particle effects, and the use of motion capture to develop a “water nymph” who is ultimately entrapped by oil-filled water.

**REQUIREMENTS:** The production of a music video approximately 3 minutes long that illustrates the dangers of pollution on our environment. Use of multiple applications (Cinema 4D, 3DS Max, etc.) is required.

**OBJECTIVES:** (1) To formulate a conceptual and artistic position on topics of digital design relevant to the student concentration area (e.g. entertainment, interactive graphics). (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.

**RESOURCES:** (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) Cabrera, Cheryl. *An Essential Introduction to Maya Character Rigging* (Focal Press, 2008). (3) Goldfinger, Elliott. *Animal Anatomy for Artists: The Elements of Form* (Oxford University Press, 20014). (4) Gray, Henry. *Anatomy of the Human Body* (Lea and Febiger, 1918). (5) Palamar, Todd. *Maya Studio Projects: Photo Realistic Characters* (Sybex, 2011) (6) Seegmiller, Don. *Digital Character Design and Painting* (Charles River Media Graphics, 2003).