



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

ABSTRACTION – ANIMATION, TRANSFORMATION, SOUND

COURSE: DD 284 – Video and Animation (3 credits)
PROGRAM: Digital Design/School of Art + Design
LOCATION: Second semester second year course/spring term (undergraduate)
INSTRUCTOR: Polina Zaitseva

DESCRIPTION: This course explores concepts of linear, motion-based two-dimensional media and includes motion graphics, live action filming, particle systems, digital video editing and digital video compression. Projects include the design and production of multiple projects addressing both technical and creative decision making. Overall, the semester focuses on narrative design and the craft of motion-based media.

PROJECT: The sixth of seven short projects requires students to develop a one- to two-minute animated film thematically based on an audio track of the student’s choice. The audio may be musical or ambient, but not spoken and not from a motion picture. The animation must be based on a non-literal approach to form (i.e. no characters, animals, or real world sets) and include geometric transitions between shapes and forms. Project-specific objectives include (1) providing students an opportunity to practice, apply, and reinforce basic compositional principles learned in courses during the freshman/foundation year; (2) providing students an opportunity to learn, practice, and apply techniques in animation and non-linear editing by using *Autodesk 3DS Max*, *Autodesk Maya*, and *Adobe After Effects* in a design context; (3) begin to apply techniques syncing sound and motion and understanding the relationship between video and audio; (4) develop facility with motion and geometric transformations. (Images shown are screen captures from animation.) All projects are uploaded to Vimeo.

OBJECTIVES: (1) Gain perspective and understanding about important milestones in motion based art and design; (2) Provide opportunities to explore post production techniques and application pipelines; (3) Provide opportunities to explore basic storytelling design principles using motion media; (4) Provide an introduction to motion based computer graphics and an opportunity to learn, practice, and become familiar and relatively proficient with editing and compositing applications; (5) Provide exposure to a reflective and iterative design process; (6) Provide exposure to criteria used in creating and evaluating two and three-dimensional motion compositions; (7) Develop a sense of quality of craft that is motion media specific; (8) Develop the ability to clearly plan, document and present a motion project.

REFERENCES: (1) Birn, Jeremy. *Digital Lighting and Rendering*. (San Francisco, CA: New Riders Publishing/Peachpit Press/Pearson, 2013). (2) Demers, Owen. *Digital Painting and Texturing*. (San Francisco, CA: New Riders Publishing/Peachpit Press/Pearson, 2001). (3) Derakhshani, Dariush and Randi L. Derakhshani. *Autodesk 3ds Max 2016 Essentials*. (Hoboken, NJ: Sybex/Wiley, 2015). (4) Maschwitz, Stu. *The DV Rebel’s Guide*. (5) Murch, Walter. *In the Blink of an Eye: A Perspective of Film Editing*. (5) Palamar, Todd. *Mastering Autodesk Maya 2016*. (Hoboken, NJ: Sybex/Wiley, 2015). (6). Perkins, Chad. *The After Effects Illusionist: All the Effects in One Complete Guide*. (New York, NY: Focal Press/Routledge/Taylor & Francis Group, 2012).

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