BIOMECHANICAL CHARACTER DESIGN

COURSE: DD 363 – Digital Design Studio I (5 credits)
PROGRAM: Digital Design/School of Art + Design
LOCATION: Third year; fall term studio course (undergraduate)
INSTRUCTOR: Polina Zaitseva

DESCRIPTION: The course focuses on three-dimensional design in a digital milieu. The course includes project-based applications focusing on the design and digital representation of a combination of architectural or environmental settings for games, theater, advertisements, books, or similar contexts as well as assets/objects that populate the spaces. The course includes modeling with different geometries (e.g. NURBS, polygonal) and advanced techniques in rendering with lighting and materials as well as issues of production design. As a general design program, various aspects of digital design and entertainment are included. Overall, the semester focuses on narrative and graphic design with still images.

PROJECT: One of five projects during the fall semester is the design of an abstract character that combines both biological/bionic and mechanical aspects into one creature.

REQUIREMENTS: Students are to create an abstract bionic/steampunk/mechanical creature (insect, mammal, fish/aquatic life) and place it in a "realistic" natural environment using lighting techniques, depth of field, and compositing. Viewers must be able to recognize the creature and the origin or model should be clear. Students will be evaluated on both the design of the creature and the high resolutions compositions created placing the creature in context.

OBJECTIVES: (1) Provide an initial exercise for character design and modeling. (2) Learn and attain facility in the use of 3D modeling software to create high-detail physically realistic models of imaginary characters/creatures. (3) Continue the study of the impact of object location, camera lens choice, and camera location on image composition. (4) Continue to develop an ability to create physically-based lighting rigs and environments. (5) Continue to practice and gain facility with software tools of *Autodesk 3DS Max*, *Autodesk Maya*, *Blender*, and *Adobe After Effects* in a design context. (6) Begin the study of creative art direction and styles through research of precedents for biomechanical models and steampunk.

RESOURCES: A subscription to *Pluralsight* provides students with software tutorials that they may access within the studio on campus.