NJIT

NEW JERSEY INSTITUTE OF TECHNOLOGY
COLLEGE OF ARCHITECTURE AND DESIGN

PRODUCT DESIGN

COURSES: ID 364 – Industrial Design Studio (5 credits)
PROGRAM: Industrial Design/School of Art + Design
LOCATION: third year design studio (undergraduate)
INSTRUCTOR: Jobe Bobee

DESCRIPTION: Design studio for product design program. Products designed vary in focus from term to term and include household products, tabletop and cutlery products, office supplies, building/architectural products, furniture, "smart" sensor-based and adaptive products, transportation, jewelry and timepieces, and more.

PROJECT: Third year students are asked to identify a need and develop a specific product used in the home or by individuals. An iterative and interactive design process is used that combines traditional media sketching, three-dimensional solid modeling (using SolidWorks as the primary tool), and then creating a physical prototype with a combination of digital fabrication (3D printing, CNC cutting, laser cutting) and traditional building techniques.

REQUIREMENTS: Students must produce a physical prototype of whatever product is being designed and proposed. The process is defined and must be documented as part of the project. This process includes (1) study of precedents and investigation of current products; (2) ideation sketching for alternative proposals; (3) exploration of form and alternatives with digital modeling (SolidWorks); (4) digital visualization (renderings) of proposed products; (5) physical prototype (generally a combination of 3D printed objects with hand-finishing); (6) package design and product booklet justifying production.

OBJECTIVES: (1) Hone research, critical thinking, and presentation skills. (2) Be able to identify the parts, materials, and production methods of a product. (3) Be able to use a comprehensive design process that integrates multiple media from freehand sketching to virtual models to 3D printed prototypes. (4) Increase facility with use of digital media for visualization and study of alternatives (including color options) for product design.