

# Three-Dimensional Design Courses (Art, Art History, and Design) (TDSN)

## TDSN Courses

This is a list of courses with the subject code TDSN. For more information, see Art, Art History, and Design (College of Liberal Arts and Sciences) in the catalog.

### **TDSN:2210 Introduction to 3D Design** 3 s.h.

Develop conceptual and critical design thinking while solving problems to create 3D structures with sustainable materials, processes, and consumption; discuss, develop, and evaluate composition principles and their relation to aesthetics, modular systems, structure, and sustainable use of material through handmade models and systems that lead to final designs; engage in diverse multidisciplinary collaborations. GE: Sustainability. GE: Engineering Be Creative; Literary, Visual, and Performing Arts; Sustainability.

### **TDSN:2240 Drafting and Modeling With AutoCAD and Rhino** 3 s.h.

Learn to expertly navigate AutoCAD and Rhino software to produce precise plans, elevations, and sections for various objects and interior spaces. Develop proficiency in creating and manipulating geometric forms. Explore the intricacies of texture mapping, background settings, and lighting techniques to enhance the realism of models. Master the use of cameras and viewpoints to create compelling visualizations and walkthroughs. Delve into basic animation principles to bring dynamic elements to designs. This comprehensive experience equips students with the technical skills and creative tools needed to excel in the field of digital design and modeling. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLs:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210). Same as CEE:2240.

### **TDSN:2250 Digital Prototyping** 3 s.h.

Basic knowledge and practical technical skills using 3ds Max studio software; experience creating and manipulating basic forms and working with texture, background, light, and camera viewpoints; basic animation. Prerequisites: ARTS:1510 and ARTS:1520 and TDSN:2210. Corequisites: TDSN:2240.

### **TDSN:2280 Materials, Tools, and Fabrication: Wood, Metal, and Composites** 3 s.h.

Fundamentals of traditional building techniques in wood, metal, and composite materials. The curriculum focuses on constructing a sample set of techniques. Students create the composite material themselves. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLs:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210).

### **TDSN:3010 Introduction to Weaving** 4 s.h.

Fundamentals of handweaving on rigid heddle and four-shaft looms. Emphasis on design principles, color, and materials for home textiles. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLs:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210).

### **TDSN:3200 Product Design** 4 s.h.

How objects are designed and structured; modeling, graphic skills necessary for basic project development. Prerequisites: TDSN:2210 and TDSN:2240. Corequisites: TDSN:2250.

### **TDSN:3220 Interior Design** 4 s.h.

Relationship of interior space to its architecture, environment, human element; color, materials, furnishings, lighting; projects. Prerequisites: TDSN:2250.

### **TDSN:3230 Color for Interior Design** 4 s.h.

Use of color for interior spaces; principles of color theory reviewed and applied to 3D environments; color as a compositional element and psychological tool. Prerequisites: TDSN:2210 and TDSN:2240 and TDSN:2250.

### **TDSN:3240 3D Computer-Aided Design** arr.

Three-dimensional computer-aided drafting; use of AutoCAD software. Prerequisites: ARTS:1510 and ARTS:1520 and (MTLS:2910 or SCLP:2810 or CERM:2010 or TDSN:2210).

### **TDSN:3260 Design for Production** 4 s.h.

Special issues and topics in design. Prerequisites: TDSN:2210 and TDSN:2240 and TDSN:2250.

### **TDSN:3280 Forms and Textiles** 4 s.h.

Products and seating design with soft materials; students experiment with diverse soft materials and textile construction techniques to design and make unique functional forms. Prerequisites: ARTS:1510 and ARTS:1520 and TDSN:2210. Corequisites: TDSN:2240 and TDSN:2250.

### **TDSN:3305 Portfolio and Curriculum Vitae Workshop** 1 s.h.

How to build a strong portfolio, CV, and résumé for 3D design job applications. Prerequisites: TDSN:2250. Corequisites: TDSN:3200 or TDSN:3220 or TDSN:3230 or TDSN:3260 or TDSN:3280 or TDSN:4010 or TDSN:4020.

### **TDSN:4010 Wood Furniture Design** 4 s.h.

Introduction to advanced problems in furniture design and manufacturing. Students design and fabricate a chair using sustainable methods, incorporating computer numerical control (CNC) technologies and plywood. Prerequisites: TDSN:2210 and TDSN:2240.

### **TDSN:4020 Metal Furniture Design** 4 s.h.

Study, design, and fabricate a metal chair using classical and modern techniques. Prerequisites: TDSN:2210 and TDSN:2240.

### **TDSN:4050 Site Specific Design** 1 s.h.

Art of planning, building, and presenting at real professional design venues; students plan, design, and build an environment to display selected 3D design work at one or two professional design venues. Prerequisites: TDSN:2250. Corequisites: TDSN:3200 or TDSN:3220 or TDSN:3230 or TDSN:3260 or TDSN:3280.

### **TDSN:4299 Undergraduate Individual Instruction** arr.

Individual instruction in 3D design for advanced students.

### **TDSN:6299 Individual Instruction in 3D Design** arr.

Individual instruction in 3D design for advanced students.