

DSGN 150 : DESIGN FOR PRODUCTION

Transcript title

Design for Production

Credits

3

Grading mode

Standard letter grades

Total contact hours

60

Other hours

60

Prerequisites

DSGN 130 and DSGN 140.

Course Description

Provides the tools and techniques to generate computer-aided manufacturing (CAM) files for production. Preparation for analyzing design and material data to determine machine tooling and machining speeds and feeds. Provides hands-on training designing for production and safely operating CNC routers, laser engravers, and 3D printers. Repeatable for credit.

Course learning outcomes

1. Generate computer aided manufacturing (CAM) files for production using appropriate techniques.
2. Analyze design and material data to determine machine tooling and machining speeds and feeds.
3. Apply design principles for production.
4. Safely operate advanced manufacturing equipment.
5. Use media-specific terminology to receive and provide feedback.

Content outline

1. Computer aided manufacturing (CAM)
2. Material data
3. Machine tooling
4. Machining speeds and feeds
5. Design for production
6. CNC router safety, operation, and maintenance
7. Laser engraver safety, operation, and maintenance
8. 3D printer safety, operation, and maintenance
9. Constructive critique: giving and receiving feedback between instructor and classmates

Required materials

Students will need to provide specific materials used in this course; please see the syllabus for a detailed list.

General education/Related instruction lists

- Arts and Letters