

DDP Curriculum Outline
Mr. Bliss

UNIT & SECTION OUTLINE

Unit 1 Introduction Weeks 1-5

- Section 1.1 History of Design
- Section 1.2 Professional Organization
- Section 1.3 Career Opportunities
- Section 1.4 Educational Requirements

Unit 2 Introduction to Design Weeks 6-15

- Section 2.1 Design Process
- Section 2.2 Principles and Elements of Design

Unit 3 Student Portfolio Development Weeks 16-18

- Section 3.1 Portfolio Development

Unit 4 Sketching and Visualization Weeks 19-23

- Section 4.1 Techniques
- Section 4.2 Pictorial
- Section 4.3 Annotated Sketches

Unit 5 Geometric Relationships Weeks 24-35

- Section 5.1 Forms and Shapes
- Section 5.2 Geometric Constraints
- Section 5.3 Cartesian Coordinate System

Unit 6 Modeling Weeks 36-40

- Section 6.1 Conceptual
- Section 6.2 Graphical
- Section 6.3 Physical
- Section 6.4 Mathematical
- Section 6.5 Computer

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Unit 7 Assembly Modeling

- Section 7.1 Adding Components
- Section 7.2 Assembly Constraints
- Section 7.3 Part Libraries
- Section 7.4 Sub-Assemblies
- Section 7.5 Driving Constraints
- Section 7.6 Adaptive Design

Unit 8 Model Analysis and Verification

- Section 8.1 Mass Properties
- Section 8.2 Tolerancing

Unit 9 Model Documentation

- Section 9.1 Working Drawings
- Section 9.2 Dimensioning
- Section 9.3 Annotation

Unit 10 Presentation

- Section 10.1 Communication Techniques
- Section 10.2 Presentation Aids

Unit 11 Production

- Section 11.1 Design for Manufacturability
- Section 11.2 Process Planning
- Section 11.3 Trends toward Automated Manufacturing
- Section 11.4 Material Procurement, Handling, and Cost Analysis
- Section 11.5 Quality Control
- Section 11.6 Manpower and Facility Requirements
- Section 11.7 Packaging

Unit 12 Marketing

- Section 12.1 Product Cost Analysis
- Section 12.2 Packaging Requirements

