



Design Computing Curriculum

The Design Computing Certificate Program provides the opportunity to build expertise in computer-based design technologies, and gain knowledge relevant to the evolving trends of design practices. Graduates of this certificate are equipped with skills in the latest software applications being utilized to translate design ideas into formats that can be presented to clients and colleagues. Taught by practicing professionals, classes are held primarily in the evening to provide flexibility for students. Through flexible course selections, students concentrate their education in an area of specialization.

Five required classes: See specific requirements in each area of specialization below

Prerequisite to begin this certificate: Basic computer skills

AREAS OF SPECIALIZATION

[CAD] COMPUTER-AIDED DRAFTING & DESIGN

Utilizes generic, computer-aided drafting and modeling software applications to document or represent design ideas in two or three-dimensional form.

Minimum of 3 courses from the list below, and 2 courses from any other Design Computing area.

Prerequisites for CAD: Architectural Skills, Orthogonal Drawing, or familiarity with drafting techniques.

Courses in CAD-2D:

AutoCAD I / 2D Drafting

AutoCAD II / 2D Drafting (prerequisite: AutoCAD I / 2D Drafting)

Courses in CAD-3D:

AutoCAD I / 3D Design

AutoCAD II / 3D Design (prerequisite: any CAD 2D course)

formZ I / Modeling & Rendering

Rhino I / 3D Design

SketchUp I / 3D Modeling & Illustration

Laser-Assisted Model Making (prerequisite: AutoCAD I / 2D Drafting)

[BIM] BUILDING INFORMATION MODELING / COMPUTER-AIDED ARCHITECTURAL DESIGN

Emphasizes the use of specialized computer-aided architectural design software applications to integrate an object-oriented process of modeling and representing the built environment.

Choose 1 of the courses from the list below, 2 from CAD, and 2 from ADV.

Prerequisites for BIM: Architectural Skills, Orthogonal Drawing, or familiarity with drafting techniques.

ArchiCAD / 2 and 3D Design Representation

Autodesk Revit / 2 and 3D Design Representation

AREAS OF SPECIALIZATION (continued)

[ADV] ARCHITECTURAL DESIGN VISUALIZATION

Focuses on rendering and animation techniques utilizing various software applications.

Minimum of 3 courses from the list below, and 2 courses from any other Design Computing area.

3ds max I / Modeling & Rendering (prerequisite: any CAD-3D course)

3ds max II / Rendering & Animation (prerequisite: 3ds max I / Modeling & Rendering)

formz II / Advanced Modeling & Rendering (prerequisite: formZ I / Modeling & Rendering)

SketchUp II / Documentation & Presentation (prerequisite: SketchUp I / 3D Modeling & Illustration)

[PH] PHOTOGRAPHY

Makes use of digital and film based cameras to document the environment.

Minimum of 3 courses from the list below, and 2 from any other Design Computing area.

Architectural Photography

Digital Photography

Intermediate Photography

On-site Photography

[GIT] GRAPHIC & IMAGING TECHNOLOGIES

Involves raster processing and illustration principles to create and modify images.

Minimum of 2 courses from the list below, 2 from PPD, and 1 from any other Design Computing area.

Photoshop I / Digital Imaging Editing and Critique

Photoshop II / Digital Imaging Editing and Critique (prerequisite: Photoshop I)

Photoshop: Imaging for Designers

[PPD] PUBLICATION AND PORTFOLIO DESIGN

Focuses on the presentation of work, which is a fundamental aspect of design communication.

Minimum of 3 courses from the list below, and 2 from any other Design Computing area.

Art of the Architectural Website

Design and the Internet

Desktop Publishing

Effective Web Design

Electronic Portfolio