ARCH 150: FOUNDATION DIGITAL DESIGN

Originator
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Co-Contributor(s)

Name(s)
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Justification / Rationale
New Curriculum for the College of the Desert/Cal Poly 2+3 Architecture partnership that will bring a full Architecture Professional degree to the College of the Desert West Valley campus.

Effective Term
Spring 2022

Credit Status
Credit - Degree Applicable

Subject
ARCH - Architecture

Course Number
150

Full Course Title
Foundation Digital Design

Short Title
FOUNDATION DIGITAL DESIGN

Discipline

Disciplines List
Architecture

Modality
Face-to-Face
Hybrid

Catalog Description
Facilitates student access to digital design drawing and modeling, tools, skills and concepts actively used in concurrent design studio. Assignments support concurrent design studio. Discussion with an emphasis on introductory digital design drawing. This course will provide a theoretical and practical step-by-step introducton to current digital 3D design modeling software paired with 2D editing software. In addition, students will be introduced to compositional and diagram making techniques as well as the use of info graphics.

Schedule Description
Facilitates student access to digital design drawing and modeling, tools, skills and concepts actively used in concurrent design studio. Assignments support concurrent design studio. Discussion with an emphasis on introductory digital design drawing.

Lab Units
3
Lab Semester Hours
162

In-class Hours
162

Out-of-class Hours
0

Total Course Units
3
Total Semester Hours
162

Required Text and Other Instructional Materials

Resource Type
Book

Author
Ching, Francis DK

Title
Architectural Graphics

Edition
6th

City
New York

Publisher
John Wiley and Sons, Inc.

Year
2015

College Level
Yes

ISBN #
978-1119035664

Resource Type
Book
Open Educational Resource
No

Author
Tufte, Edward R.

Title
Envisioning Information

City
Cheshire, Connecticut

Publisher
Graphics Press

Year
1990

ISBN #
978-0961392116

For Text greater than five years old, list rationale:

This course covers historical perspective and materials from older texts and articles are appropriate.

Class Size Maximum

26

Course Content

Gaining primary knowledge of color, line weight and output mediums in the digital environment.
  • Relationship between Vector and Raster information.
  • Utilizing figure and group relationships as design tool.
  • Basic concepts of Geometric construction in a digital space.
  • Learning basic 3D techniques.
  • Basic Solid and Surface Modelling with 3d software.
  • Using Model information in different software environments for linework, photomontage and rendering.

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Course Objectives

	Objectives
Objective 1	Demonstrate knowledge of design modeling and publishing.
Objective 2	Demonstrate knowledge of low-poly digital modeling techniques.
Objective 3	Demonstrate knowledge of preliminary and schematic design issues explored with low-poly models.
Objective 4	Demonstrate ability to develop design graphics and media, in a variety of output resolutions and format types from digital design data.
Objective 5	Demonstrate an ability to make clear digital diagrammatic and informational graphics.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Illustrate diagrammatic and informational digital graphics to convey conceptual design solutions.
Outcome 2	Apply digital study modeling techniques exploring preliminary and schematic design solutions.
Outcome 3	Develop digitally rendered architectural models representing analytical solutions of programmatic issues.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Collaborative/Team	Group critiques, discussion of individual student projects.
Participation	Participation in class discussions and Application of the content of these discussions to their own work.
Laboratory	Application of basics interfaces, tools, and commands in the programs being used for exercises.
Discussion	Discussion of assigned reading and written response exercises.
Other (Specify)	Films related to the study of digital design.
Technology-based instruction	Links to Blackboard online video software training and web-based resources.
Other (Specify)	Video presentations.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Portfolios	Final portfolio with all studio exercises.	In Class Only
Critiques	Individual desk critique and class critique of student projects.	In Class Only
Student participation/contribution	Presentation of projects during class reviews.	In Class Only
Group activity participation/observation	Participation in discussion of the studio work.	In Class Only
Computational/problem-solving evaluations	Site analysis and site design assignments.	In Class Only

Assignments

Other In-class Assignments

1. Reading assignments from required text and/or instructor "handouts"
2. Presentation of 2D modeling techniques.
3. Presentation of 3D modeling techniques.
4. Critique of studio work.
5. Prepare for group critiques (pin-ups) of design projects

Grade Methods
Letter Grade Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Online %
50
On-campus %
50

Lab Courses

Instructional Materials and Resources

If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?
Links to web resources for online video software training and web-based resources.
The college LMS will be the only place student data is stored.

If used, explain how specific materials and resources outside the LMS will be used to enhance student learning.
Software training will enhance classroom presentation of digital design software.

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:
Discussion forums with substantive instructor participation
Online quizzes and examinations
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:
Direct e-mail
Posted audio/video (including YouTube, 3cmediasolutions, etc.)

For hybrid courses:
Scheduled Face-to-Face group or individual meetings

Supplemental seminar or study sessions

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Timely feedback and return of student work as specified in the syllabus
Discussion forums with substantive instructor participation
Online quizzes and examinations
Weekly announcements

If interacting with students outside the LMS, explain how additional interactions with students outside the LMS will enhance student learning.

Outside software training courses will enhance classroom presentation of digital media tools.

Other Information

Comparable Transfer Course Information

University System
CSU

Campus
California State Polytechnic University, Pomona

Course Number
ARC 1500A

Course Title
Foundation Digital Design Activity

Catalog Year
2015

Rationale
This COD course is a copy of the Cal Poly course and part of our four year 2 + 3 agreement with CSU Poly, Pomona.

MIS Course Data

CIP Code
04.0901 - Architectural Technology/Technician.

TOP Code
020100 - Architecture and Architectural Technology

SAM Code
C - Clearly Occupational

Basic Skills Status
Not Basic Skills

Prior College Level
Not applicable

Cooperative Work Experience
Not a Coop Course

Course Classification Status
Credit Course

Approved Special Class
Not special class

Noncredit Category
Not Applicable, Credit Course

Funding Agency Category
Not Applicable

Program Status
Stand-alone

Transfer Status
Transferable to CSU only

General Education Status
Y = Not applicable

Support Course Status
N = Course is not a support course

Allow Audit
No

Repeatability
No

Materials Fee
No

Additional Fees?
No

Files Uploaded

Attach relevant documents (example: Advisory Committee or Department Minutes)
ARCH 150_CO Approval Ltr 0616.pdf

Approvals

Curriculum Committee Approval Date
4/15/2021

Academic Senate Approval Date
4/22/2021

Board of Trustees Approval Date
5/21/2021

Chancellor's Office Approval Date
6/16/2021

Course Control Number
CCC000625515