

Course Outline

COURSE: CGD 8 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Summer 2017 **Inactive Course**

SHORT TITLE: ADV CGD APPLICA I

LONG TITLE: Advanced Computer Graphics for Design Application I

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
3	18	Lecture:	2	36
		Lab:	3	54
		Other:	0	0
		Total:	5	90

COURSE DESCRIPTION:

Advanced course in applied computer graphics and associated interdisciplinary design proficiencies required by careers that design, engineer, manufacture and/or market products. Applies theories, principles and skills covered in CGD 4 and integrates business, sustainable design, and hybrid products. Design solutions reflect technical understanding, aesthetic principles and addresses societal needs in a cost effective manner. Presentations include animating and rendering models of real and/or virtual products that address human factors/ergonomics, usability, life cycle analysis and sustainability. Portfolios support advancement in student-selected career pathways by communicating competence in computer graphics and design. **ADVISORY:** Eligible for English 250, 260 and Mathematics 233.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 02 - Lecture and/or discussion
- 03 - Lecture/Laboratory
- 04 - Laboratory/Studio/Activity
- 05 - Hybrid
- 72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

1. Identify and describe career objective, Produce a graphic of roadmap to achieve goal, cite references using MLA format

Measure:

ILO: 3, 1, 6, 2, 4, 7, 5

2. Integrate lifecycle analysis of a product associated with career objectives for developing schematic design drawings

Measure:

ILO: 7, 2, 1, 3, 5, 4, 6

3. Provide and use critiques to revise and produce production drawings of improved sustainable design product

Measure:

ILO: 4, 6, 1 2, 3, 5, 7

4. Design, develop and analyze strength of a cost effective product with different function than previous product

Measure:

ILO: 7, 2, 1, 5, 3, 6, 4

5. Design a hybrid product by morphing two designed products

Measure:

ILO: 5, 2, 7, 1, 3, 6, 5

6. Prepare self-explanatory brochure using design principles and color theory to market/brand product

Measure:

ILO: 1, 5, 7, 3, 2, 6, 4

7. Create portfolio to showcase projects and market skills

Measure:

ILO: 6, 5, 1, 3, 7, 2, 4

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Inactive Course: 02/27/2017 Effective Summer 2017

11 Hours

CONTENT: Review CGD careers, creative problem solving process, and other design concepts.

STUDENT PERFORMANCE OBJECTIVES: Develop and present objectives to reach career goal

HOMEWORK: Prepare annotated timeline referencing milestones to attain CGD career objective

15 Hours

CONTENT: Product life cycles, sustainable design and design practices

STUDENT PERFORMANCE OBJECTIVES: Integrate sustainable practices into product design

HOMEWORK: Design product associated with future career they identify ways to increase sustainability in planning, design, production, distribution, use and retirement of product

7 Hours

CONTENT: Design materials and using cost benefit analysis to justify design revisions

STUDENT PERFORMANCE OBJECTIVES: Use cost benefit analysis to recommend revisions

HOMEWORK: Redesign product using a decision matrix to support revised materials and methods

19 Hours

CONTENT: Review of ergonomics and other human factors in design. Need analysis methodology.

STUDENT PERFORMANCE OBJECTIVES: Determine and develop need based product

HOMEWORK: Assess needs of targeted group served by selected career goal then propose, develop, design and present assembly product to meet client needs

15 Hours

CONTENT: Branding and marketing of products

STUDENT PERFORMANCE OBJECTIVES: Identify and describe audience for product, then apply product design skills to communicate ways product best meets their unique needs.

HOMEWORK: Create brochure for marketing product to a target audience. Explain how color theory, graphic design and topographic principles were used to influence potential customers

14 Hours

CONTENT: Hybrid products, morphing, product development

STUDENT PERFORMANCE OBJECTIVES: Develop hybrid product by morphing two products

HOMEWORK: Create and present original hybrid product by morphing two dissimilar products

7 Hours

CONTENT: Showcasing skills and targeting job description to create a competitive design portfolio

STUDENT PERFORMANCE OBJECTIVES: Produce targeted graphic design position portfolio

HOMEWORK: Produce portfolio to present design projects and feature career goal competencies

2 Hours

Final Exam

METHODS OF INSTRUCTION:

Lecture, discussion, demonstration, problem-solving, written and oral critique.

METHODS OF EVALUATION:

CATEGORY 1 - The types of writing assignments required:

Percent range of total grade: 10 % to 15 %

Written Homework

Reading Reports

Term or Other Papers

Other: Written Critiques

CATEGORY 2 -The problem-solving assignments required:

Percent range of total grade: 10 % to 25 %

Homework Problems

Quizzes

Exams

Other: Design Problems, Design Projects

CATEGORY 3 -The types of skill demonstrations required:

Percent range of total grade: 25 % to 50 %

Class Performance/s

Performance Exams

CATEGORY 4 - The types of objective examinations used in the course:

Percent range of total grade: 10 % to 25 %

Multiple Choice

True/False

Matching Items

Completion

Other: Applied Skill Exam Computer Aided Design

CATEGORY 5 - Any other methods of evaluation:

Percent range of total grade: 10 % to 25 %

Portfolio of design projects

REPRESENTATIVE TEXTBOOKS:

Required:

Lefteri, Materials for Inspirational Design, or other appropriate college level text, RotoVision, 2006

Reading level of text: 12th+ grade

Verified by: E. Venable

Other textbooks or materials to be purchased by the student:

Sketchbook, sketch pens and pencils, headphones, thumbdrive.

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 199330

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department: CGD
CSU Crosswalk Course Number: 8
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: B
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000374343
Sports/Physical Education Course: N
Taxonomy of Program: 095300