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

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Weeks</th>
<th>Type</th>
<th>Contact Hours/Week</th>
<th>Total Contact Hours</th>
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<tr>
<td>3</td>
<td>18</td>
<td>Lecture</td>
<td>2</td>
<td>36</td>
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<td></td>
<td></td>
<td>Lab</td>
<td>3</td>
<td>54</td>
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<td>Other</td>
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<td>Total</td>
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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

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

3/8/2017
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