COLLEGE OF THE DESERT

Course Code ARCH-017

Course Outline of Record

1. Course Code: ARCH-017
2. a. Long Course Title: Architectural Design Fundamentals III
   b. Short Course Title: ARCH DESIGN FUND III
3. a. Catalog Course Description:
   This is the final course in a three-semester design series. It focuses on the application of both theoretical and environmental issues involved in a Student Design Competition. Students study site and environmental issues and architectural programming as design stimulus
   b. Class Schedule Course Description:
   This final architectural design course will engage students in a Design Competition that emphasizes the application of both theoretical and environmental issues.
   c. Semester Cycle (*if applicable*): Spring semester
   d. Name of Approved Program(s):
   - ARCHITECTURAL TECHNOLOGY AS Degree and Transfer Preparation
4. Total Units: 3.00 Total Semester Hrs: 126.00
   Lecture Units: 1 Semester Lecture Hrs: 18.00
   Lab Units: 2 Semester Lab Hrs: 108.00
   Class Size Maximum: 26 Allow Audit: No
   Repeatability No Repeats Allowed
   Justification 0
5. Prerequisite or Corequisite Courses or Advisories:
   Course with requisite(s) and/or advisory is required to complete Content Review Matrix (CCForm1-A)
   Prerequisite: ARCH 009 and
   Prerequisite: ARCH 010
6. Textbooks, Required Reading or Software: *(List in APA or MLA format.)* *N/A*
7. Entrance Skills: *Before entering the course students must be able:*
   a. Demonstrate an understanding of how sustainable architecture can be achieved in the 4-climate zones.
   - ARCH 010 - Cite the role of the built environment in the global view, national and regional
   - ARCH 009 - Transform a specific spatial conception into a three-dimension medium by demonstrating the ability to design and build a model of their design

   b. Research and analyze climate data to determine architectural design strategies
   - ARCH 009 - Demonstrate the ability to investigate the object design through a series of drawn sections
   - ARCH 010 - Demonstrate the principles of heat, light, and sound and how they affect architectural form and human comfort.
   - ARCH 010 - Evaluate and choose appropriate architectural responses to issues of climate, site resources, energy, comfort and aesthetic quality.

   c. Evaluate and choose appropriate architectural responses to issues of climate, site resources, energy, comfort and aesthetic quality.
   - ARCH 009 - Demonstrate the ability to investigate the object design through a series of drawn sections
   - ARCH 010 - Demonstrate the principles of heat, light, and sound and how they affect architectural form and human comfort.
   - ARCH 010 - Research and analyze climate data to determine architectural design strategies.
   - ARCH 010 - identify and evaluate critical climate, resource and comfort issues for thermal, lighting, and acoustic environments.

8. Course Content and Scope:

Lecture:

a. Principles and requirements of energy efficient design
b. Design Strategies: Beauty, durability and comfort
c. Conservation strategies: water reducing landscaping, gray water for irrigation use of recycled materials, low energy lighting and photovoltaics
d. History and precedents as examples of design influences
e. Review of systems integration: forms and materials, affect on function, social human and aesthetic design issues
f. Environmental sensitivity and perception
g. Title 24 Energy Calculations

Lab: *(if the "Lab Hours" is greater than zero this is required)*

a. Title 24 Energy Calculations b. Gathering and analysis of data c. Research and implementation of sustainable materials d. Conceptual to final design

9. Course Student Learning Outcomes:

1.
Apply climatological studies related to building site orientation. (Cognitive)

2.
Develop energy efficient design strategies. (Psychomotor)

3.
Select sustainable building materials and develop planning and graphic solutions for a design issues. (Psychomotor)

10. Course Objectives: *Upon completion of this course, students will be able to:*

a. Perform climatological studies related to building site orientation
b. Plan energy efficient design strategies.
c. Demonstrate energy efficient design strategies in a comprehensive architectural and planning solution.
d. Demonstrate an understanding of the relationship between site planning and envelop manipulation
e. Demonstrate the ability to meet compliance in the selection of building materials and energy efficiency.
f. Analyze the appropriate design and planning solution(s) for entry to “design competition.”
g. Demonstrate the ability to use computer software for State of CA Title 24 Energy Calculations.

11. Methods of Instruction: *(Integration: Elements should validate parallel course outline elements)*

a. Collaborative/Team
b. Discussion
c. Lecture
d. Participation

Other Methods:

a.Lecture, films, slides, overhead projections b.Drawing site plans, floor plans, elevations, sections and details c.Axonometric and perspective drawings d.Development of models: wood, metal, Plexiglas e.Title 24 (State of California) Energy Calculations: micro-computer workshop f.Discussion of reading assignments g.Group critiques and design ‘pin-ups’ h.Individual desk critiques on all design strategies

12. Assignments: *(List samples of specific activities/assignments students are expected to complete both in and outside of class.)*

In Class Hours: 126.00
Outside Class Hours: 36.00

a. In-class Assignments

1. Reading assignments from required text and/or instructor “handouts”
2. Present site plans, floor plan, elevations and sections of designs
3. Present perspective and axonometric drawings of designs
4. Develop and build models of wood, metal and plexiglass
5. Prepare for group critiques (pin-ups) of design projects

b. Out-of-class Assignments

1. Reading assignments from required text and/or instructor “handouts”
2. Prepare site plans, floor plan, elevations and sections of designs
3. Prepare perspective and axonometric drawings of designs
4. Develop and build models of wood, metal and plexiglass
5. Prepare for group critiques (pin-ups) of design projects

13. Methods of Evaluating Student Progress: *The student will demonstrate proficiency by:*
    - Critiques
      Individual desk critique and class critique
    - Portfolios
    - Computational/problem solving evaluations
    - Group activity participation/observation
    - Student participation/contribution

14. Methods of Evaluating: Additional Assessment Information:

    a. Written assignments b. Lecture and studio participation c. Design assignments d. Quality and participation in team assignments e. Clarity and sophistication of final design project; f. Attendance g. Final ‘Jury’ presentation (Design Competition Project

15. Need/Purpose/Rationale -- *All courses must meet one or more CCC missions.*

    PO - Career and Technical Education

    Fulfill the requirements for an entry- level position in their field.
    Apply critical thinking skills to execute daily duties in their area of employment.
    Apply critical thinking skills to research, evaluate, analyze, and synthesize information.
    Exhibit effective written, oral communication and interpersonal skills.
    Transfer to a higher level learning institution

    IO - Aesthetics

    Apply and relate theories of aesthetics to everyday life.
    Utilize the creative process to explain universal values such as beauty and truth.
    Apply imagination to artistic expression.
    Value appearance in terms of how pleasing it is in movement, form, and function.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year

17. Special Materials and/or Equipment Required of Students:

18. Materials Fees: ☐ Required Material?

Material or Item	Cost Per Unit	Total Cost

19. Provide Reasons for the Substantial Modifications or New Course:

    Periodic Course Review

20. a. Cross-Listed Course *(Enter Course Code)*: *N/A*
    b. Replacement Course *(Enter original Course Code)*: *N/A*

21. Grading Method *(choose one)*: Letter Grade Only

22. MIS Course Data Elements
    a. Course Control Number [CB00]: CCC000309705
    b. T.O.P. Code [CB03]: 20100.00 - Architecture and Architec
    c. Credit Status [CB04]: C - Credit - Not Degree Applicable
    d. Course Transfer Status [CB05]: A = Transfer to UC, CSU
    e. Basic Skills Status [CB08]: 2N = Not basic skills course
    f. Vocational Status [CB09]: Clearly Occupational
    g. Course Classification [CB11]: Y - Credit Course
    h. Special Class Status [CB13]: N - Not Special
    i. Course CAN Code [CB14]: *N/A*
    j. Course Prior to College Level [CB21]: Y = Not Applicable
    k. Course Noncredit Category [CB22]: Y - Not Applicable
    l. Funding Agency Category [CB23]: Y = Not Applicable
    m. Program Status [CB24]: 1 = Program Applicable

    Name of Approved Program *(if program-applicable)*: ARCHITECTURAL TECHNOLOGY
    Attach listings of Degree and/or Certificate Programs showing this course as a required or a restricted elective.)

23. Enrollment - Estimate Enrollment
    First Year: 26
    Third Year: 26

24. Resources - Faculty - Discipline and Other Qualifications:
    a. Sufficient Faculty Resources: Yes
    b. If No, list number of FTE needed to offer this course: *N/A*

25. Additional Equipment and/or Supplies Needed and Source of Funding.

    N/A

26. Additional Construction or Modification of Existing Classroom Space Needed. *(Explain:)*

    N/A

27. FOR NEW OR SUBSTANTIALLY MODIFIED COURSES
    Library and/or Learning Resources Present in the Collection are Sufficient to Meet the Need of the Students Enrolled in the Course: Yes

28. Originator Donbert M. Bitanga Origination Date 04/22/18