

Hawaii Community College

AEC 140 - Commercial Working Drawings

1. Course Alpha:

AEC

2. Course Number:

140

3. Short Course Title (Banner Title - limit to 30 characters):

Commercial Working Drawings

4. Long Course Title - (Catalog Title):

Commercial Working Drawings

5. Cross-listed courses if any:

NO

6. Proposed Term to take effect:

Summer 2017

7. Number of Student Contact Hours per Week (based on a 15 week semester):

- Lecture/Lab (6)

8. Number of Credit Hours:

3

9. Type of Course:

- Regular Course (0)

10. Concise Statement of Reason(s) for Proposing the Addition of this new course or Modification of an existing course (please list each item to be modified) or Archive/Deletion of an existing course (If course is being deleted, specify if it will be replaced by another course):

Archive/Deletion of an Existing Course

AEC 140 will no longer be offered. AEC has created new courses with curriculum changes that has been approved.

11. Course Description:

A core course that includes the theory and practice involved in producing and organizing working drawings using CAD for multi-family and/or commercial projects. Students are exposed to design, layout and construction methods used in steel, concrete, masonry and wood systems. Independent research emphasized.

12. Course Prerequisites (must be taken previously):

AEC 130

13. Course Corequisites: (Course that must be taken in the same semester as the proposed course)

AEC 141B (or prior completion)

14. Recommended Preparation:

None

15. Course Learning Outcomes: (Please use Course SLO button to enter SLOs)

Course SLO/PSLO	A	B	C	D	E
Develop a project program	X	X	X	X	X

Understand steps involved in preliminary design		X	X	X	X
Able to read commercial floor plans		X	X		X
Understand the structural system of commercial working		X	X		X

LEGEND

- A. 2) Identify or describe the characteristics and uses of construction materials, building products and systems, and research these materials for use based on a prescribed design project requirement.
- B. 5) Formulate, design, revise, and construct projects of knowledge and comprehension based on design criteria requiring recall of past courses/experiences and be able to defend, explain, and discuss designs.
- C. 6) Demonstrate communication, critical thinking, research, and problem-solving skills
- D. 7) Understand the balance between cultures, community, and the environment.
- E. 8) Demonstrate computation and reasoning skills.

16. Program SLOs Addressed

Program SLO/ILO	A	B	C
2) Identify or describe the characteristics and uses of construction materials, building products and systems, and research these materials for use based on a prescribed design project requirement.	X	X	X
5) Formulate, design, revise, and construct projects of knowledge and comprehension based on design criteria requiring recall of past courses/experiences and be able to defend, explain, and discuss designs.	X	X	X
6) Demonstrate communication, critical thinking, research, and problem-solving skills	X	X	X
7) Understand the balance between cultures, community, and the environment.	X	X	X
8) Demonstrate computation and reasoning skills.	X	X	

LEGEND

- A. 1) Our graduates will be able to communicate effectively in a variety of situations.
- B. 2) Our graduates will be able to gather, evaluate and analyze ideas and information to use in overcoming challenges, solving problems and making decisions.
- C. 3) Our graduates will develop the knowledge, skills and values to make contributions to our community in a manner that respects diversity and Hawaiian culture.

17. Institution Learning Outcomes (ILO) Addressed

Institution Learning Outcomes
1) Our graduates will be able to communicate effectively in a variety of situations.
2) Our graduates will be able to gather, evaluate and analyze ideas and information to use in overcoming challenges, solving problems and making decisions.
3) Our graduates will develop the knowledge, skills and values to make contributions to our community in a manner that respects diversity and Hawaiian culture.

18. Course Objectives:

AEC 140-Commercial Wkg Dwg will develop the skills and knowledge of non-residential construction. Student competencies should be to lay out a site plan and locate the building meeting zoning code requirements; design and lay out floor plans; design and detail a foundation system and a framing system; explain various types of schedules used in typical working drawings; produce

necessary detailing and design and lay out an electrical plan of multifamily and commercial structures.

19. Course Topics in outline form

1. Site analysis, code preparation, client profile-programming, preliminary design stage
2. Floor Plan, dimensioning, symbols
3. Site Plan, Foundation Plan, Foundation Details
4. Structural Floor Plans and Details
5. Structural Roof Plans and Details
6. Building Sections, Exterior Elevations
7. Interior Elevations, Door and Window Schedule
8. Door and Window Details, Cabinet Details,
9. Stair and/or Elevator Details, Specialty Details
10. Evaluations, Corrections, Plotting

20. If course is repeatable for credit, specify the maximum number of cumulative credits:

NO

21. Grading System:

- Credit/NoCredit only (0)
- Standard Letter Grade (0)

22. The proposed or modification(s) will: (increase, decrease or make no changes) in the number of credits required.

This deletion will not affect number of credits.

23. If the modification(s) will lengthen the time needed to complete a degree and/or certificate, please explain briefly.

This deletion will not lengthen time needed.

24. How is the course related to the educational needs, goals and/or mission of the college? Include its relation to courses and programs in other disciplines.

This course meets the educational goals of the ATE Division by maintaining training in the field of drafting. It meets the goals of one of the college's 4 cornerstone missions through the use of technology in the production of the work. It serves the community's drafting industry by providing training for the workforce and is related to other disciplines in the ATE Division such as Carpentry, Electricity, Welding and Sheet Metal.

25. Will the course require additional staff, equipment, facilities and/or other costs? If "Yes," then explain what is needed and how they are expected to be supported.

This course will not require additional staff, services, equipment or facilities. Standard consumable supplies are a part of the AEC Tech Program budget.

26. What experiential or professional preparation is required to teach this course?

A qualified person would be as stated in the standard trade instructor requirements, 24 college credits and 7 years experience.

27. Does the college have full-time faculty who meet these requirements? If "No," then explain who is expected to teach the course?

We currently have full-time faculty who meet these requirements.

28. Is a similar course offered within the University of Hawaii system? If "Yes," then provide course identifications (alpha, number title, description and prerequisites) of each course. *Note: After answering this question, please click on modify outline and ensure you answer questions listed on HAW tab.**

No

29. If the course has previously been offered as an experimental course please list the course's prior Alpha, Number and Title

N/A

30. Are specific majors ineligible from taking the course? (If YES, please list the majors)

No

31. Is the course restricted to specific majors? (If YES, please list the major)

Yes, Architectural, Engineering and CAD Technologies

32. If variable credit course please specify if it is Low OR High (choice of low or high credit value) or Low TO High (could be any credit amount between the two credit values given) and the credits associated with it.

N/A

33. Other Comments: (Separate from course description, but include recommended preparation if any.)

N/A

34. The course is currently or proposed to be a major requirement for which program?

Architectural, Engineering and CAD Technologies

35. Assigned Banner HawCC College Division Codes (select one):

AT

36. Assigned Banner HawCC College Department Codes (select one):

CT