EID 270 COURSE DESCRIPTION & OBJECTIVES

Class hours: Tu/Th 1:00 – 3:50pm
Office hours: MWF 12:30 – 1:30

Office: Eiben 211
Email: elizabeth.lockard@chaminade.edu

COURSE DESCRIPTION:

EID 270 Building Systems and Materials (4cr)
This course is designed to give students an understanding of designing within the context of building systems and how to specify appropriate materials and products. Students will be introduced to building infrastructure and performance design mandates. Installation and material maintenance will be examined as well as codes associated with building construction and material selections. This course explores a wide variety of finish materials and examines sustainable environmentally-friendly products and building practices. Prerequisites: EID 201, EID 202, and EID 217 (may be taken concurrently).

CLASS FORMAT:

This course explores the various materials and components that make up the interior architect's palette as well as provide an overview of building systems and codes which comprise the context in which the designer operates. The objective of this course is to produce a project that is of professional quality, using the skills and knowledge you will have acquired over the semester. To that end, emphasis will be on understanding all the components that make up a typical design project and how they relate to each other.

Over the duration of the semester, we will examine various facets of a typical interior design project, applying the principles presented in the lecture to a semester-long design project. A different aspect of design will be the focus of each week; the course will culminate in a single comprehensive interior design project that will incorporate all the components you have developed throughout the class.

The first half of each class will consist of a lecture component; the second half will focus on either in-class exercises based on the lecture, a review of the project component assignment, or review of your developing design project. In between the lecture session and the exercise/review session, there will be a 10-minute break from 2:20–2:30pm. It is important that students bring in their work to class for each review, as <u>you</u>—the students—are responsible for the content of that part of class time.

Each student is expected to possess basic skills in technical drawing and model-building from which you will learn to develop a complete technical drawing package for your design project. The final drawing package will be produced in AutoCAD, so it is imperative that you have either already taken the course, or are taking the course concurrently. That said however, the first half of the semester you are expected to do extensive hand drawing and sketching in your process work.

Once a month, exams on the content of the lectures will be given; much of what we will cover in this class will help to prepare you for the 200-level comprehensive exam.

At the end of the semester, there will be a final review of your design project in class. In addition to that however, there are two milestones to prepare for as you conclude your second year: one is the 200-level exam, which tests your knowledge of vocabulary, design theories, and principles of design (such as safety, sustainability, and accessibility). The second is a skills assessment (practicum), based in large part on the final project of this course, which is intended to evaluate how you apply the knowledge and skills you've acquired thus far to your design projects and ascertain your readiness for the upper division courses. To determine whether you are eligible for the 200-level exam and the practicum at the end of this term, arrange an advising appointment with the EID Program Director.

DESIGN METHODOLOGY:

Remember--design is neither a linear nor sequential process, but an *iterative* one. For each project component assignment, you will be required to develop a minimum of three options. Not all of them have to be good—or even viable for that matter—but should show evidence of both exploration of and/or refinement of ideas ("process"). You are also encouraged to work with others as much as possible and share ideas. Getting feedback from multiple perspectives may help you to see your project in unexpected ways and this will help to strengthen your work.

GRADING:

Evaluation criteria is based on the following:

- quality and creativity of design work
- thoroughness and craft in presentation
- technical proficiency
- contribution of ideas and engagement in class
- willingness to experiment and to challenge yourself
- rigor
- professional demeanor

Your final grade will be weighted as follows:

Design Project	70%
Exams (4)	30%

This is an intensive and demanding studio course, thus regular attendance is crucial. Should you have to miss a class, please inform me in advance when possible; you will be responsible to make up the work. All projects must be complete and submitted on time, unless otherwise arranged. Any unexcused late submissions will be marked down by one letter grade.

REQUIRED TEXTS:

Building Systems for Interior Designers (Second Edition), Corky Binggeli
Interior Design Materials and Specifications (Second Edition), Lisa Godsey

REFERENCE TEXTS:

Interior Design Reference Manual (Sixth Edition), David Kent Ballast
Interior Graphic Standards (Student Edition), M. McGowan & K. Kruse (out of print)

COURSE LEARNING OUTCOMES:

- **Space Planning** – Students should be able to develop an effective and efficient interior spatial layout based on a complex program & design concept [CIDA standard 9] [PO 3] – EMERGING
- **Site Analysis** – Students should be able to understand how external conditions and siting impact the design of interior spaces & create relationships between interior and exterior [no CIDA standard] [PO 3, 4] – DEVELOPING
- **Residential & Commercial Design Requirements** – Students should be able to recognize & apply the different design requirements for residential and commercial installations [CIDA standards 11, 12, 13, 14] [PO 3] – DEVELOPING
- **Prioritization of Design Criteria** – Students should be able to coordinate & prioritize design choices based on health, welfare, safety and sustainability criteria [CIDA standards 2, 3, 14] [PO 2, 3, 4] – EMERGING
- **Building Systems & Codes** – Students should be able to integrate basic knowledge of building systems and codes in a design project [CIDA standards 12, 13, 14] [PO 3, 4] – EMERGING
- **Technical Skills** – Students should be able to execute a design development drawing package; develop preliminary finish specifications as well as 3D representations (physical & digital) of their design project [CIDA standard 6] [PO 2, 5] - DEVELOPING

EID PROGRAM OUTCOMES:

1) Professionalism – understand, apply and participate in ethical design practices on a personal, project, peer and industry-wide level. *(CIDA 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14)*

2) Process – ability to identify problems/challenges and demonstrate an understanding of the complete design process from inception to installation, execute documentation supporting design decisions and effect comprehensive, creative, focused and functional design solutions. *(CIDA 4, 6, 9, 10, 11, 12, 13, 14)*

3) Principles & Priorities – integration of pedagogy, research, historic contexts, theory, and interdisciplinary collaboration to effectively and creatively analyze, evaluate and execute best design practices resulting in functional and aesthetically inspiring design. *(CIDA 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14)*

4) Public & Environmental Protection – demonstrate an understanding of the concepts, resources and implications of design decisions relative to the human interaction, technological impact and ecological balance of the built environment. *(CIDA 2, 3, 4, 7, 8, 10, 12, 13, 14)*

5) Presentation – demonstrate ability to communicate design concepts and problem solving justifications through written, oral and a variety of visual media. *(CIDA 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14)*

SHOWROOMS & SUPPLIERS:

Students should take it upon themselves to visit the showrooms and suppliers on the island, either individually or with a group. Below is a list of local vendors, but you may find others that are of personal interest to you or your project. Project specifications should include mostly locally-sourced items.

- Home Depot – Alakawa Ave
- Wisteria Lane (flooring) – behind Iwilei Costco gas station
- Daltile (tile showroom) – Nimitz Hwy
- Ferguson's (bath & kitchen fixtures) – Kokea Street
- Fiddler's (K&B fixtures & accessories) – Kamani Street
- Lokahi Stone (custom concrete) – Queen Street

EID 270 COURSE SCHEDULE

Week #01:		**Assignment:**
Tu 8/26 -	Course overview & project introduction Review: CAD template package & deliverables precedent studies; project schedule	project assn: project schedule site documentation precedent research materials binder
Th 8/28 -	Lecture: Site Issues & Analysis Site visit & field documentation	
Week #02:		
Tu 9/02 -	Lecture: Codes, Safety & Accessibility Review: site conditions & documentation	BSID Part I IGS handout (sustainability, codes) IDRM chs. 5, 7, 8, 9
Th 9/04 -	Lecture: Sustainability Review: programming & space planning; "concept"	project assn: precedent research; concept development
Week #03:		
Tu 9/09 -	Lecture: Mechanical & Electrical Systems Review: precedent & concept presentations	IGS handout (infrastructure) BSID Parts II, IV, V, IX IDRM chs. 12 & 13
Th 9/11 -	Lecture: Structural & Plumbing Systems Review: spatial analyses; exam study guide	project assn: programming; spatial analysis
Week #04:		
Tu 9/16 -	Lecture: Fire Safety & Suppression Review: conceptual/spatial diagrams	BSID Part VIII
Th 9/18 -	Exam #1 Review: blocking diagrams	project assn: spatial diagrams
Week #05:		
Tu 9/23 -	Lecture: Thermal Principles Review: schematic design; review exam #1	BSID Parts III, X IGS handout (acoustics) IDM&S pp. 377-381 (acoustics)
Th 9/25 -	Lecture: Acoustics Review: schematic design	IDRM ch. 14 project assn: schematic design

Week #06:

Tu 9/30 - Lecture: Wall Assemblies Review: schematic design	IGS handout (assemblies)
Th 10/02 - Lecture: Wall Sections/Types Review: schematic design	project assn: schematic design

Week #07:

Tu 10/07 - Lecture: Lighting & RCPs Review: schematic design	BSID Part VI IGS handouts (lighting) IGS handout (stairs)
Th 10/09 - Lecture: Stair Design & Construction Review: schematic design; exam study guide	project assn: schematic design

Week #08:

Tu 10/14 - Schematic Design review (juried)

Th 10/16 - Exam #2
Review: schematic design revisions

Week #09:

Tu 10/21 - Lecture: Kitchen Design
Review: schematic design revisions; review exam #2

Th 10/23 - Lecture: Bathroom Design Review: schematic design revisions	project assn: SD revisions

Week #10:

Tu 10/28 - Lecture: Room Finishes (walls, ceiling, paint) Review: design development	IDM&S pp. 27-39, 41-42 (paint) IDM&S pp. 45-51, 55-58 (wallcovering) IDM&S pp. 113-120, 131-133 (carpet)
Th 10/30 - Lecture: Room Finishes (flooring, carpet) Review: design development	IDM&S pp. 155-168, 175-179 (wood) IDM&S pp. 203-212, 215-6 (flooring) IDM&S pp. 219-226, 231 (synthetics) IDM&S pp. 251-255 (metals) IDM&S pp. 269-277, 285-6 (tile/brick) IDM&S pp. 301-310, 318-320 (stone) IDM&S pp. 325-332, 335-6 (terr/conc) IGS handout (carpet) project assn: design development

Week #11:

Tu 11/04 - Lecture: Specifications & Schedules Review: design development, specifications	IDM&S pp. 15-17 (specs) IGS handouts (cabinetry) IDRM ch. 15 & 17 IDRM handout (ch. 25 & 11)
Th 11/06 - Lecture: Cabinetry Review: design development; exam study guide	project assn: design development; specifications

Week #12:

Tu 11/11 - Exam #3
Review: design development, specifications

project assn:
design development;
specifications

Th 11/13 - Lecture: Hardware, Doors & Windows
Review: design development; review exam #3

Week #13:

Tu 11/18 - Lecture: AutoCAD techniques
Review: design development, specifications

project assn:
presentation preparation;
specifications

Th 11/20 - Lecture: TBD
Review: design development, specifications

Week #14:

Tu 11/25 - Lecture: TBD
Review: CAD package; exam study guide

project assn:
presentation preparation

Th 11/27 – Thanksgiving [holiday]

Week #15:

Tu 12/02 - Exam #4
Review: presentation deliverables

project assn:
presentation preparation

Th 12/04 - Lecture: 200-level comp exam & practicum
Review: presentation preparation; review exam #4

Week #16:

Tu 12/09 – Exam #4 / Final Project Presentation 1:15 – 3:15
W 12/10 – Exam #4 / Final Project Presentation 1:15 – 3:15
Th 12/11 – Exam #4 / Final Project Presentation 3:30 – 5:30

Week #17:

Sa 12/13 10:00-12:00 – 200-level Comprehensive Exam

Tu 12/16 10:00-11:30 – Practicum review
11:30-1:00 – Practicum review
1:00-2:30 – Practicum review
2:30-4:00 – Practicum review

W 12/17 10:00-11:30 – Practicum review
11:30-1:00 – Practicum review
1:00-2:30 – Practicum review
2:30-4:00 – Practicum review

EID 270 PROJECT OVERVIEW | TECHNOLOGY DESIGN OFFICE OF THE FUTURE

Project description:
People spend most of their waking hours in their place of work, and at the same time a great majority of them are unhappy with their jobs. The current culture of the workplace focuses on efficiency and productivity rather than effectiveness and creativity, on quantity over quality. As such, offices are impersonal spaces and are often perceived as domains of servitude instead of places of personal fulfillment or purpose. As baby boomers are retiring and millennials are taking over the workforce, those notions are being challenged. Moreover, the trajectory of technological development is on an exponential curve—what the norm is at present will likely be obsolete within the decade. Therefore, what can we expect the office of 2024 to be like? Or more importantly, what *should* it be like?

Goal:
To design an office that responds not only to current trends in how people *want* to work (as well as more 'effectively' work), but also anticipates the rapid changes in technology, work culture, and social practices. The design solution for the office of 2024 should identify those trajectories as well as take the lead in its development, rather than react to or follow already emergent trends. (Though budget will not be a critical consideration for this project, you should be cognizant of the cost implications of your design solution.)

Client Profile:
A new, young technology software firm called Carpe Diem, who is relocating to Honolulu with the hopes of attracting local and international talent as well as clients. They describe themselves as progressive, liberal, visionary, futuristic, and are particularly concerned about social and environmental issues; marketing is targeted towards the current and upcoming 20's generation. What sets them apart from other technology design firms is their emphasis on creativity and fun in their work, in addition to striving to be pioneers in an already cutting-edge and competitive field. Their current office in northern California is occupied almost around the clock—not in traditional 8-hour or 9-to-5 work shifts, but in flexible work shifts where employees can come and go at any time and are free to work in a (mostly) unstructured/unregimented manner.

Site/Location:
3130 Waialae Avenue, at the base of Chaminade campus (concrete & stucco two-story, 3000 sf building with storefront windows along the street and access to roof)

Program:
Firm has between 10-12 employees; other occupants/users to consider: kids, animals, visitors, clients, etc. Make it unique, visionary, and memorable by incorporating at least one absurd/peculiar/unconventional design element in the space.

Activities include:

▪ Work areas at different scales and social configurations (solitary, pairs, small groups, large groups, conferences, presentations)	580 sf
▪ Equipment room (computer, printer, scanner, plotter, work surface, supply cabinet)	220 sf
▪ Discretionary areas (recreation, creativity, play, rest)	500 sf
▪ Reception/lobby	120 sf
▪ Eating area/lounge	180 sf
▪ Food preparation (small commercial kitchen)	225 sf
▪ Daycare (for max. 4 toddlers)	250 sf
▪ ADA bathroom with shower, dressing area, lockers	180 sf
▪ Storage	100 sf
▪ Display area	
▪ Mechanical/Electrical rooms	100 sf
▪ Stairs & ADA elevator	200 sf
▪ Circulation	300 sf
▪ Roof garden	not included
TOTAL =	2955 sf

Additional considerations: acoustics, personal territory, pet accommodations, bike storage
You may augment (but not reduce) the program according to your design concept and subsequent strategy. Spaces and uses may overlap or be flexible.

Pre-Design Research:
Before you can start thinking about design ideas, read the literature on current and past office design trends so that you become familiar with the issues surrounding the task (see URL list below). Examine how offices have been designed to accommodate the required functions and also consider how those spaces are experienced by the user. The next step in your research is to embark on precedent studies. The purpose of analyzing precedents is to build your knowledge base through gathering in-depth information about a specific typology—not only the status quo but also the history of its development as well. Precedents should not be taken purely on face value, but used to evaluate what has been successful, what has not been successful, and why. Your design concept and its relevancy will be grounded in your research. *The more thorough the pre-design research, the more meaningful your design proposal/solution will be.* Research also establishes your expertise in the subject and confers credibility when advising your client.

At the very minimum you should examine 3-4 case studies, one of which must be a live office. Choose contrasting or diverse examples to study.

Conduct a thorough spatial analysis (similar to 201 exercise) of your live example which should involve the following:

- Walk through the space and thoroughly photo-document
- Obtain space-planning drawings
- Observe different activities and different user groups
- Interview various users of the space (prepare questions in advance)
- Make notes of your first impressions as well as extended observations
- Gather general info on the project

You may work in pairs or small groups and are encouraged to share information. Each group will present their research to the class in a 15-minute PPT presentation, after which each of you will discuss your preliminary ideas for your individual project.

The presentation should not be a laundry list of details but rather a thoughtful analysis of the positive and negative attributes of the project, including what lessons were learned about the typology, what aspects are applicable to your project, what design features should be avoided or modified, and how the typology in general will/should develop in the future. Presentation content should include numerous photos of the space, especially those that illustrate and support your assertions. Floor plans and other spatial diagrams should also be included, as well as any other information or visuals you think are essential to validate your analysis. Only once you have developed a concept (which then directly informs your design strategy/approach), then modify the base program requirements accordingly and proceed with a spatial adjacencies matrix.

Specifications:

A significant component of this course focuses on developing basic specifications as part of your design proposal. Though we will not compile and format them until the latter part of the semester, you should begin gathering items (cut/tear sheets) that may potentially be useful to your project. Organize them in a notebook from which you will select the actual items to be included in your final design. Do not discard the rest; archive them as part of an ongoing collection for future projects. For the purposes of this project, you may organize them according to a variety of categories:

Materials	(upholstery, wood, steel, glass, gypboard)
Finishes	(paint, wallcovering, flooring)
Furnishings	(seating, tables, desks)
Equipment	(copier, boiler, projector, refrigerator)
Fixtures	(lighting, toilets, sinks)
Cabinetry	(kitchen, bathroom, storage, office)
Hardware	(door handles, faucets, hinges, closers)
Accessories	(mirrors, clocks)
Sustainability	(solar hot water, PV system, rain catchment tank)
Specialty Items	(custom items, elevator, lift, awning, fountain)
Landscaping	(flower beds, ground cover, garden, shrubs)

Deliverables:

Schematic Design review (11”x 17” format):

- 1”= 10’ site plan
- 1/4" floor plans (first floor, second floor, roof)
- 1/4" building section
- Inspiration/concept board
- Conceptual materials/color board
- Process work (study models, sketches)

Final Design review:

- Model of interior at 1/4”=1’-0”— including stair, roof garden, and front elevation
- Design Development drawings in AutoCAD (11”x 17”):
  - Title Sheet
  - Site & Landscaping Plan
  - Existing Conditions & Demolition Plan
  - Floor Plans
  - Roof Plan
  - Reflected Ceiling & Lighting Plans
  - Building Sections
  - Exterior Elevation
  - Interior Elevations (kitchen, bathroom, thematic space)
  - Stair Section (optional)
  - Window Types/Schedule
  - Door Types/Schedule
  - Wall partition Types
  - FFE Schedule (kitchen & bathroom)
- 3D experiential vignette—medium of your choice (model, axon, perspective rendering)
- Concept/Inspiration board (18”x 24” foam-core, horizontal orientation)
- (2) Materials boards representing contrasting spaces (18”x 24” foam-core, horizontal orientation)
- Specifications binder (kitchen, bathroom, thematic space, sustainable features)
- Process drawings, sketches, model studies, etc.
- Site photos, analyses, precedent studies

All final deliverables will additionally be presented in PPT format and submitted electronically.

Websites:

https://www.americanexpress.com/us/small-business/openforum/articles/open-office-backlash-seeking-productivity-in-a-noisy-world/

https://www.americanexpress.com/us/small-business/openforum/infographics/4-ways-to-make-working-in-an-open-office-bearable/

http://www.fastcompany.com/3019758/dialed/offices-for-all-why-open-office-layouts-are-bad-for-employees-bosses-and-productivity

https://www.americanexpress.com/us/small-business/openforum/keywords/open-office/

http://blogs.hbr.org/2013/11/research-cubicles-are-the-absolute-worst/

http://www.newyorker.com/currency-tag/the-open-office-trap?mobify=0

https://www.americanexpress.com/us/small-business/openforum/articles/how-to-work-in-an-open-office/

https://www.americanexpress.com/us/small-business/openforum/articles/open-office-design/

https://www.americanexpress.com/us/small-business/openforum/articles/a-eulogy-for-the-private-office/

http://www.theatlantic.com/business/archive/2013/12/why-the-9-to-5-day-is-so-tough-on-creative-workers/282331/