

Chaminade University

College of Business, Innovation, and Technology
Environmental + Interior Design

EID 202-01-2: Foundations of Technical Drawing

Class Location: Eiben 104
Meeting Schedule: MW 6:00 pm - 7:50 pm
Credits: 3 Term: Fall 2026

Instructor Information

Instructor: Dimitri Damiel Kim, AIA, Dipl.-Ing.
Email: dimitri.kim@chaminade.edu
Office Location: [TBD]
Office Hours: [TBD and by appointment]
Virtual Office: [Zoom link posted in Canvas]
Virtual Office Hours: [TBD and by appointment]

Communication

Canvas announcements and university email are the primary forms of course communication. Students should check both regularly. The instructor will ordinarily respond within 24–48 hours on working days. Questions requiring drawing review should be brought to class or office hours.

School & Department Information

College of Business, Innovation, and Technology (CBIT)
Office Location: See current CBIT / university directory.
Questions regarding the Environmental + Interior Design program may be directed to the instructor.

Course Description & Materials

Catalog Course Description

Introduction to various types of technical drawing, including orthographic, perspective, axonometric, and field sketching. Emphasis on hand drafting and the knowledge of mechanical drawing tools and techniques used in the fields of architecture and interior design. Students learn to read and execute construction drawings such as floor plans, elevations, and sections, and apply these skills to translate their own design work.

Course Emphasis

EID 202 develops technical drawing as a cumulative professional language through the Nine-Square Grid Problem. Students begin with a regulated three-by-three spatial grid and progressively translate it through line, scale, notation, plans, elevations, sections, spatial projections, details, schedules, and a coordinated drawing package. Hand drafting remains central, and each drawing builds upon earlier underlays, design studies, and model development.

Co-requisites/Pre-Requisites: Co-requisite: EID 200, or consent of instructor.

Time Allocation

This is a three-credit course requiring approximately 135 clock hours of student engagement under the CUH Credit Hour Policy. Across the semester, students should expect approximately 37.5 hours of scheduled class meetings and 97.5 hours of work outside class. Outside work includes drawing practice and completion of weekly exercises (approximately 42 hours), assigned readings and construction-document review (approximately 15 hours), Nine-Square Grid design studies and physical model development (approximately 12 hours), and development of the cumulative construction-drawing package (approximately 28.5 hours).

Required Texts and References

Francis D. K. Ching, *Architectural Graphics*, 6th or 7th edition — primary instructional reference.

Lydia Sloan Cline, *Architectural Drafting for Interior Designers*, any recent edition — technical drafting reference.

Selected pages from Francis D. K. Ching, *Building Construction Illustrated* — supplemental construction reference.

Weekly Canvas modules will identify the relevant Ching chapter/topic and verified page ranges for the 6th and 7th editions when appropriate. Supplemental drawing examples, construction-document references, and selected readings will be provided through Canvas.

Department-Required Drawing and Model-Making Materials

- 18-inch roll of sketching trace paper
- Architectural scale, engraved plastic or metal with colored stripes
- Three mechanical pencils: 0.3 mm, 0.5 mm, and 0.7 mm — Staedtler 925 kit
- Lead: 2H/0.3 mm, HB/0.5 mm, and 3B/0.7 mm
- Pad of unlined 18 x 24-inch vellum paper, minimum 10 sheets
- Hard eraser, gummy eraser, and erasing shield
- Staedtler 10-inch adjustable triangle
- Drafting dots or drafting tape
- Circle template
- Tape measure; a longer tape is recommended
- X-Acto knife and replacement blades, cutting mat, and metal cutting edge
- Tacky glue
- Chipboard and foam core in varied thicknesses; the instructor will identify the required thicknesses for each project

Students must obtain the prescribed tools during the first week and bring the appropriate materials to every class. Safe handling of knives, blades, cutting edges, and adhesives is required.

Recommended Items

Portable drawing tube or portfolio, sketchbook, additional trace paper, spare leads and blades, and a laptop or tablet for accessing Canvas and reference documents. Digital drafting software may be demonstrated for comparison, but the primary course emphasis remains hand drafting and manual drawing.

Canvas

Canvas is the central course platform for announcements, readings, reference drawings, assignment briefs, submission instructions, grades, and schedule updates. Students remain responsible for reviewing Canvas before each class and bringing the required tools and materials.

Learning Outcomes

Program Learning Outcomes (PLOs)

1. Professionalism — Apply and participate in ethical design practices at personal, project, peer, community, and industry levels.
2. Process — Identify design problems and demonstrate an understanding of the design process from inception through documentation and installation.
3. Principles & Priorities — Integrate research, historical context, theory, technical knowledge, and interdisciplinary collaboration in design decision-making.
4. Public & Environmental Protection — Understand the implications of design decisions for human interaction, health, safety, technological impact, and ecological balance.
5. Presentation — Communicate design concepts, technical analysis, and problem-solving justifications through written, oral, graphic, and digital media.

Course Learning Outcomes (CLOs)

6. Technical Drawing Comprehension — Read and comprehend a basic set of construction documents.
7. Technical Drawing Execution — Execute a basic set of construction documents using appropriate conventions, scale, line hierarchy, dimensions, notes, and graphic organization.
8. Design and Construction Methods — Correlate principles of technical drawing with the design process and with basic methods of construction.

Marianist Values

This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles:

9. Education for formation in faith.
10. Provide an integral, quality education.
11. Educate in family spirit.
12. Educate for service, justice and peace, and integrity of creation.
13. Educate for adaptation and change.

EID 202 supports integral, quality education through disciplined observation, accurate communication, and the responsible representation of designed space. Repeated drawing practice develops adaptation and change as students refine work through critique and correction. Peer review and shared studio practice support family spirit, while field documentation and accessible construction-drawing conventions reinforce service, professional responsibility, and respect for the people who will use and construct interior environments.

Native Hawaiian Values

Education is an integral value in both Marianist and Native Hawaiian culture. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua).

14. Educate for Formation in Faith (Mana) — E ola au i ke akua — May I live by God.
15. Provide an Integral, Quality Education (Na'auao) — Lawe i ka ma'alea a kū'ono'ono — Acquire skill and make it deep.
16. Educate in Family Spirit ('Ohana) — 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana — Recognize others, be recognized, help others, be helped; such is a family relationship.
17. Educate for Service, Justice and Peace (Aloha) — Ka lama kū o ka no'eau — Education is the standing torch of wisdom.
18. Educate for Adaptation and Change (Aina) — 'A'ohe pau ka 'ike i ka hālau ho'okahi — All knowledge is not taught in the same school.

Alignment of Course Learning Outcomes

Alignment Category	CLO 1	CLO 2	CLO 3
Marianist Values	2, 5	2, 5	2, 4, 5
Program Learning Outcomes	PLO 2, 5	PLO 2, 5	PLO 2, 3, 4
Native Hawaiian Values	Na'auao; 'Ohana	Na'auao; 'Aina	Na'auao; Aloha; 'Aina
Primary Course Evidence	Document-reading exercises; quizzes; drawing-set analysis	Weekly Nine-Square drafting phases; coordinated drawing package	Nine-Square plans, sections, details, model, and construction-method analysis

The alignment matrix identifies how each Course Learning Outcome contributes to the E+ID Program Learning Outcomes and Chaminade's Marianist and Native Hawaiian values. The cumulative construction-drawing package addresses all three outcomes by requiring students to read source information, execute coordinated drawings, and connect representation to design and construction decisions.

Course Activities

Discussions

Discussion occurs through drawing demonstrations, pinups, construction-document reading sessions, and desk critiques. Students are expected to ask technical questions, explain drawing decisions, and contribute constructive observations during reviews.

Homework

Homework consists of cumulative drafting exercises developed through the Nine-Square Grid Problem. Assignments develop line control, scale, notation, geometric construction, orthographic projection, spatial projection, details, model-making, and construction-document coordination. Underlays, design studies, and earlier drawings must be retained because each project phase builds directly on previous work.

Quizzes

Two short quizzes may be used to assess construction-document comprehension, drawing conventions, symbols, scale, dimensioning, and the relationships among plans, elevations, sections, details, and schedules.

Exams

There is no conventional final examination. The principal summative assessment is the completed construction-drawing package, supported by weekly exercises and document-reading assessments.

Team Projects

Collaborative work may occur during field measurement, peer review, and construction-document interpretation. Unless an assignment is explicitly identified as a team submission, each student must produce and submit an individual drawing demonstrating independent technical competence.

Individual Projects

Individual work develops one Nine-Square Grid project through freehand studies, geometric constructions, orthographic projections, axonometric and perspective drawings, plans, elevations, sections, details, lighting and electrical diagrams, furniture and occupation studies, schedules, coordinated drawing sheets, and a physical model.

Final Project

The final project is a cumulative hand-drafted documentation package and physical model developed from the Nine-Square Grid Problem. Each student will translate a regulated three-by-three spatial composition into a coordinated set of architectural drawings.

The final submission must include:

- coordinated title block and sheet organization
- dimensioned floor plan
- furniture, occupation, and circulation plan
- reflected ceiling or lighting information where appropriate
- selected elevations
- at least two sections
- one architectural detail
- dimensions and notes
- symbols and references
- schedules
- at least one axonometric drawing
- one perspective drawing
- physical model

The package must demonstrate all three Course Learning Outcomes.

Assessment and Grading

Nine-Square Grid Project and Final Drawing Package	60%
Weekly Drafting Exercises and Project Phases	20%
Quizzes (2)	15%
Attendance and In-Class Participation	5%

Drawings and models are evaluated for accuracy, technical skill, completeness, coordination, line hierarchy, scale, notation, graphic clarity, craft, and responsiveness to critique. Construction-document comprehension is evaluated through drawing-reading exercises, quizzes, and the correct coordination of information across the final package.

Course Policies

Attendance

Regular attendance is essential because drawing demonstrations, critique, and sequential in-class work cannot be fully reconstructed outside class. Students should notify the instructor in advance when possible and remain responsible for all missed instruction and assignments. Attendance will be administered in accordance with current university and school policy.

Late Work

Assignments are due at the date and time listed in Canvas. Students should contact the instructor before the deadline when circumstances may prevent timely submission. Unapproved late work may receive a grade reduction. Because later drawings depend on earlier underlays, excessively late work may also delay subsequent assignments.

Extra Credit

Extra credit is not guaranteed. Any extra-credit opportunity will be announced to the entire class and will support the same learning outcomes and technical standards as required course work.

Changes to the Syllabus

While the provisions of this syllabus are as accurate and complete as possible, your instructor reserves the right to change any provision herein at any time. Every effort will be made to keep you advised of such changes, and information about such changes will be available from your instructor.

Grades of Incomplete

Requests for a grade of Incomplete will be considered in accordance with current Chaminade University policy and only when the circumstances and remaining course requirements make an Incomplete appropriate. Students should contact the instructor as early as possible to discuss eligibility and required completion work.

Final Grades

Final grades are submitted to Self-Service:

A = 90% and above

B = 80–89%

C = 70–79%

D = 60–69%

F = 59% and below

Important Information

Academic Honesty

Academic honesty is an essential aspect of all learning, scholarship, and research. Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or University official. Academic dishonesty may include theft of records or examinations, alteration of grades, plagiarism, and other forms of academic misconduct. For the most up-to-date information, refer to the Academic Honesty Policy in the Chaminade University Catalog.

Title IX and Nondiscrimination

Chaminade University of Honolulu is committed to providing a learning, working, and living environment that promotes the dignity of all people, inclusivity, and mutual respect and is free of unlawful discrimination and gender-based violence. Faculty are required to report certain incidents to the campus Title IX Coordinator. Current Title IX, nondiscrimination, grievance, reporting, confidential-resource, and pregnancy/parenting information is available through Chaminade University compliance resources.

Hazing Prevention Resources

Students should consult the current Chaminade University Student Handbook and university resources for hazing prevention, reporting, and athlete-support information.

Basic Needs Resources

Chaminade provides basic-needs resources for students. Current information is available through the university's Basic Needs resources.

Campus Safety / SafeSwords

SafeSwords provides campus escort support for students, faculty, and staff who feel uncomfortable or unsafe walking alone on campus. Current details are available through Chaminade Campus Safety.

CUH Alert Emergency Notification

Students should maintain current emergency contact information in the Chaminade portal and complete registration for the university emergency notification system.

Assessment for Student Work

With the goal of continuing to improve the quality of educational services offered to students, Chaminade University conducts assessments of student achievement of course, program, and institutional learning outcomes. Student work may be used anonymously as the basis of these assessments.

Students with Disabilities

Chaminade University of Honolulu offers accommodations for actively enrolled students with disabilities in compliance with applicable law. Students are responsible for contacting Kōkua 'Ike: Center for Student Learning and completing the required documentation and notification process.

Kōkua 'Ike: Tutoring & Learning Services

Chaminade offers free tutoring and writing assistance through Kōkua 'Ike: Center for Student Learning. Students should consult current university resources for hours, scheduling, and online tutoring access.

Readings & Due Dates

Wk of	Theme	Info	Due Dates
8/17	First Day: Drawing + Technical Foundations	Monday: course introduction and syllabus orientation; technical drawing as professional communication; Ching as the shared convention/reference framework; drawing-set anatomy activity identifying title, scale, view type, symbols, notes, dimensions, and references; discussion of how plan, elevation, section, detail, and schedule coordinate; brief introduction to the Nine-Square semester problem. No formal drafting demonstration. Wednesday: formal technical instruction begins with materials check, drawing setup, lead grades, line quality, line weight, line types, architectural lettering, and the first regulated grid exercise. Ching: Chapters 1–2. CLO 1, 2.	Monday marked-up drawing-set activity; Wednesday materials check + Exercise 01 — Line Quality + Graphic Control begun in class
8/24	Drawing Systems, Scale, and Measurement	Monday: architectural drawing systems and communication—multiview, paraline, perspective, and sketching; reading drawings as coordinated representations. Wednesday: architectural scale, proportional thinking, basic field measurement and verification, and conversion of observed dimensions into scaled information. Ching: Chapter 3; introductory portions of Chapters 4–6 and 10; Chapter 2 scale/measurement topics. CLO 1, 2, 3.	Drawing-system comparison; scale / measured-sketch exercise

8/31	Geometric Construction and Nine-Square Base Grid	Geometric construction, parallel and perpendicular relationships, angles, circles, arcs, accuracy, and controlled drafting procedures; construction of the regulated three-by-three Nine-Square base grid and introduction to iterative drawing as a design process. Ching: Chapter 2; selected Chapter 9 concepts. CLO 2, 3.	Nine-Square base grid
9/7	Drawing Conventions and Spatial Elements	Labor Day: no class Monday, September 7. Wednesday: line conventions, titles, basic symbols and notation; introduction of columns, walls, planes, openings, thresholds, and simple dimensional relationships within the Nine-Square grid. Ching: Chapters 2–3. CLO 1, 2, 3.	Spatial-element studies
9/14	Freehand Sketching and Nine-Square Design Studies	Freehand observation, analytical sketching, diagramming, figure-ground, solid and void, spatial hierarchy, circulation, and development of alternative Nine-Square compositions; study-model development. Ching: Chapters 9–10. CLO 1, 2, 3.	Design studies and study model
9/21	Floor Plan Construction	Plan as horizontal section; plan-cut conventions; columns, walls, openings, level changes, line hierarchy, dimensioning, and annotation applied to the selected Nine-Square composition. Ching: Chapter 4 — Multiview Drawings, floor-plan sections. CLO 1, 2, 3.	Dimensioned Nine-Square plan
9/28	Elevations and Vertical Projection	Projection from plan; vertical dimensions; openings; planes; materials; level changes; reference information and titles; coordination between plan and elevation. Ching: Chapter 4 — Multiview Drawings, elevation sections. CLO 1, 2, 3.	Elevation set
10/5	Sections and Spatial Coordination	Section cuts; cut-plane hierarchy; alignment among plan, elevation, and section; levels; overhead and concealed conditions; vertical development and coordination of the Nine-Square composition. Ching: Chapter 4 — Multiview Drawings, section sections. CLO 1, 2, 3.	Two coordinated sections
10/12	Fall Wellness Week — No Classes	No class meetings and no new lesson content. Students may use the week for rest, reflection, and voluntary organization of prior drawings. No new assignment is due.	No lesson or assignment due
10/19	Axonometric / Paraline Drawing	Isometric and selected axonometric methods; constructing three-dimensional form from orthographic information; cutaway and exploded views; analytical use of paraline drawing. Ching: Chapter 5 — Paralane Drawings. CLO 1, 2, 3.	Nine-Square axonometric

10/26	Perspective Drawing	One-point and two-point perspective; station point, horizon, vanishing points, measuring relationships, viewpoint selection, and spatial verification; application to the Nine-Square project. Ching: Chapter 6 — Perspective Drawings. CLO 2, 3.	Nine-Square perspective
11/2	Occupation, Furniture, Ceiling, and Lighting Information	Monday: human scale, clearances, furniture and equipment symbols, circulation paths, thresholds, and coordination with plan, elevation, and section. Wednesday: reflected-view convention, ceiling planes, lighting symbols, switches/outlets, and coordination with the floor plan. A simplified RCP or coordinated lighting/ceiling-information diagram will be developed as appropriate to each project. Ching: Chapters 4 and 8; supplemental Cline reference. CLO 1, 2, 3.	Occupation/circulation plan; RCP or lighting/ceiling diagram
11/9	Architectural Details, Construction, and Model	Detail scale; wall, floor, ceiling, opening, stair, and joint relationships; material indications; introductory construction logic; model craft; drawing what is constructed. Veterans Day: no class Wednesday, November 11. Ching: Chapter 4 and selected presentation conventions; supplemental Building Construction Illustrated. CLO 1, 2, 3.	Detail drawing and model development
11/16	Schedules, Sheet Organization, and Cross-Referencing	Introductory element, material, finish, opening, or drawing schedules; sheet numbering; titles; callouts; references; title blocks; drawing-set navigation and coordination. Ching: Chapter 8 — Architectural Presentations; supplemental Cline reference. CLO 1, 2.	Schedule and sheet index
11/23	Nine-Square Drawing Package Workshop	Coordination of plans, elevations, sections, axonometric, perspective, details, symbols, dimensions, notes, schedules, lighting/ceiling information, and model. Thanksgiving schedule may modify meeting pattern. Integrated Ching review: Chapters 2, 4–6, 8–9. CLO 1–3.	Draft package review
11/30	Final Drawing and Model Development	Desk critiques; technical corrections; line-weight refinement; coordination checks; completeness review; graphic standards; model completion; final revision of the coordinated package. Integrated Ching review. CLO 1–3.	Final review draft
12/7	Final Review and Submission	Presentation and submission of the coordinated Nine-Square drawing package and physical model; reflective review of technical progress and drawing coordination. CLO 1–3.	Final package and model due