

CADD 160 Drafting Fundamentals Course Syllabus

Portland Community College | 12000 SW 49th Ave, Portland, OR 97219 | (971) 722-6111

Course Information

- **Course Title:** Drafting Fundamentals
- **Course Number:** CADD 160
- **CRN:** 41815
- **Term:** Fall 2024
- **Credit Hours:** 4
- **Prerequisites:** None

Instructor Information

- **Instructor:** Wendie Siverts
- **Email:** wendie.siverts15@pcc.edu
- **Phone:** 971.722.6236
- **Office Hours:** [Book an appointment here](#); appointments available 3 weeks in advance.
- **In-person Office Location:** PCC SE Campus, SCOM 214
- **Virtual Office Link:** [Virtual Zoom Meeting Room](#)

Email is the best way to reach me. If your question or comment would be of interest to other students, however, please post it to the **Course Lobby**. This way your classmates can help answer questions, and all students will benefit from the answers. Please refer to the information in **How to Use D2L Brightspace** in the **Support & Resources** module for guidelines governing the content of written communications.

Emails sent on days will be answered within 24 hours. Emails sent over the end or holiday will be answered the following scheduled school day.

Course Description

Introduces skills needed to produce 2-D mechanical drawings using hand sketching techniques on grid paper. Includes orthographic projection, lettering, auxiliary views, sections and pictorial drawings. Covers dimensioning basics. Audit available.

Intended Outcomes for the Course

1. Apply hand sketching skills in the development of technical mechanical drawings.
2. Apply industry standards in the development of technical mechanical drawings.
3. Incorporate and articulate appropriate specific industry vocabulary within the technical mechanical drawings.

For more information, please go to the [Course Content and Outcome Guide](#) for this course.

Course Activities and Topics

Drafting Fundamentals is designed to acquaint the student with a fundamental understanding of drawing techniques. Emphasis will be placed on the sketching techniques, lettering, orthographic projection, auxiliaries, sections, and pictorials. This course is delivered in asynchronous online mode. Lectures and demonstrations are provided via pre-recorded video. Lectures are supplemented with reading assignments. Students apply concepts through completing lab drawing problems.

This course covers the following topics:

- Intro to Technical Sketching & Lettering
- Technical Sketching
- Orthographic Projection
- Dimensioning & Term Review
- Auxiliary Views
- Basic Section Views
- Advanced Section Views
- Pictorial Drawings

Instructional Materials

Textbook

Modern Graphics Communication Fifth Edition, Lockhart

Peachpit Press 2018

ISBN: 9780134848716

Available in the PCC bookstore. Also available online: Amazon, Abe Books, etc.

Used copies are acceptable and eBook versions are acceptable.

(Note: This textbook is also required for CADD 265)

Supplies

[See detailed supply list here](#), including PCC bookstore links and other recommendations. The following items are required:

- No. 2 or HB pencil (an exam scoring pencil like General's #580 is a good choice)
- Quarter inch grid paper or quad ruled notebook paper, 4 squares per inch
- 12" ruler (standard style with fractional inch and metric scale)

Software

If you will be using a phone, tablet or webcam to document your work, consider installing a scanning app. The following options include a free basic installation. (Alternatively, watch my how-to video on making a photo box for your phone.)

- [Genius Scan](#)
- [Camscanner](#)
- [Adobe Scan](#)

Please visit [What Apps and Tools Can I Use?](#) for a complete list of apps and tools for PCC students.

Technical Expectations

The technical requirements for online courses include:

- [Technology Requirements for taking an online course at PCC](#)
- [A recommended Internet Browser installed](#)
- [Ability to use Google Drive and Google Docs](#)
- *Recommended:* Webcam and microphone for online appointments, drop-in meetings and/or discussion posts (a smartphone is an acceptable alternative.)

Technical Accessibility

This course uses digital courseware, software, or texts that may cause barriers for those using assistive, or accessibility-related technologies. If you encounter barriers, please contact the Access Tech Team at access-tech-group@pcc.edu or by calling 971-722-TECH (971-722-8324).

Instructional Approach

This course is arranged chronologically and employs a modular design. Each week, students should complete all assignments listed in that week's lesson module. These modules are available by clicking "Content" on the course navigation bar.

Due dates for each week's assignments will be listed within the module itself. Assignments within the modules may direct students to use many of the tools contained in Brightspace, including Assignments, Discussions or Quizzes. These tools will be accessible from within the weekly content modules, as well as from the course navigation bar in the **Activities** drop down menu.

Weekly Structure

- Overview
- Instructor Notes/Lecture
- Reading
- Quiz
- Discussion
- Demonstration
- Lab
- Ask Questions
- Summary
- Further Study

Attendance & Participation

Students in this course are expected to access the course at least three times a week to check announcements and email, study the learning materials, complete assignments, and work on projects. For each credit hour a student should expect to spend at least 3 hours each week during a typical term. Plan to spend at least **12 hours per week** on this 4 credit course.

Because this is a fully online course, it's important to read through everything carefully. Read, and then read again! If something is still unclear, please post your question to the **Course Lobby** or send the instructor an email. *I also highly recommend uploading a picture or avatar to your profile.* This will help create a sense of place and community in our virtual classroom!

First Week Participation

During the first week of the term instructors must:

- Identify students who are enrolled but not engaged in a class. These are referred to as "No Show" students, and will be dropped from the class as per PCC's [G302 Grading Guidelines policy](#).
- In order to avoid being dropped as a "No Show" student, **you must complete the following activities before the end of the day on the first Sunday of the term:**
 - Take the Course Information Quiz
 - Post to the "Introduce Yourself" Discussion

Course Communication Guidelines

The following guide will assist you in communicating with members of this course and outlines course specific communication standards.

- Students are expected to respond to faculty or classmates' e-mail, announcements, and other modes of communication within 24 hours (unless otherwise stated). Be sure to check the **Announcements** in D2L Brightspace each time you log into the class.
- If you have **questions regarding the content of this course**, first check the **Course Lobby** to see if the question has been answered. If not, I encourage you to post your question (you may do so anonymously.) *If the question regards a private matter, such as an accommodation or grades, please email me directly.*
- For **questions about D2L Brightspace, Google Docs, or other technology related questions**, please contact the Student Help Desk.
- In the event of an emergency, the student should call or email their instructor.
- The college has an expectation that all communication between instructor and student will be professional and appropriate at all times and that both parties will practice constructive communication behaviors that serve to improve the learning experience and constructively resolve disagreements or misunderstandings. Communication behaviors that involve inappropriate language, yelling, threats, interruptions or other behaviors which are abusive and destructive to the communication process are inappropriate.

Additional tips and rules of personal conduct that apply to all online communications:

- As much as possible make email and discussion forum messages short and to the point.
- Write meaningful subject lines for your email and discussion forum contributions so others will know what to expect.
- Be polite and respectful. It can be tempting to let yourself go in an environment that feels anonymous, but remember that there are real people reading your messages. Good online manners are vital to a productive and supportive online learning environment.
- Be tolerant of views expressed by others. Our classes include people from all over the world from many different backgrounds. We all grow from exposure to views and backgrounds different from our own.
- When reacting to someone else's message, address the ideas, not the person. Again, remember that there are real people on the other end.
- Use care with sarcasm and humor, and don't include any obscenities in your messages. Without face-to-face communications, people may take your humor personally, and you never know who may be offended by expressions that are commonplace to you.
- Don't send commercial advertisements or "chain mail" to your classmates.

[Click here for more information about Netiquette.](#)

Discussion Forums

This course is designed with a discussion forum called the **Course Lobby**. Within the **Course Lobby** you will find two discussion topics:

- **Ask Questions!** Ask questions about the course materials. Include a descriptive topic, i.e. Chapter 2 textbook reading, in your post. If you know the answer, post a reply! All posts can be made anonymously.
- **Build Community!** This is a fun and friendly place for you to connect with your classmates, share ideas, and post resources.

Graded Assignments & Feedback

Lab Assignments

Lab assignments are your core deliverable for this course, making up 60% of your grade. There are nine labs total including the final project. Lab assignments consist of 3-7 drawing problems focused on the topic of the week. Labs build on each other, and your drawing skills will improve over the course of the term.

Labs are graded as E, "Exceeds Requirements" (100%), M, "Meets Requirements" (95%) or R, "Revision Required" (80%). Work marked "R" may be corrected and resubmitted for up to full credit. Partial submissions receive commensurate partial credit, and also may be resubmitted with additions and/or corrections.

It is very important to read the feedback on your lab submissions. This feedback is a conversation between you and the instructor about the course topics; this is an important vehicle for understanding drafting concepts.

Discussions

Discussions support our class community, and provide an opportunity to learn from each other. Some discussions in this course leverage Zoom Whiteboards and/or Voice Thread to share visual examples, video and/or audio. Participation in discussions is the primary component of the "attendance and participation" portion of your grade. On-topic posts and replies will receive full credit. Remember: You must reply to at least one post in every discussion to receive 100%.

Quizzes

The quizzes focus your attention on the reading assignments and related lectures. Use the quizzes to test your knowledge of the topic of the week. Quizzes are open book and open internet. You may retake the quizzes to improve your score - I want everyone to receive 100%!



Exams

There are two exams - the midterm and the final. The midterm exam consists of written answer and fill-in-the-blank questions that demonstrate your grasp of the concepts presented in this course. The final exam is a review of all the quizzes from over the term; the final also will help prepare you for the ADDA certification exam, should you choose to take it.

Feedback

Feedback for lab submissions will be posted within one week of the due date. Remember: It is important to read the feedback! Scores for quizzes are posted automatically. Discussion posts will be scored within one week of the due date.

To view feedback, click on Grades from the navigation bar. Click on View Graded Rubric for additional feedback. For more information, visit [Viewing instructor feedback for Assignments & Discussions](#) and [Viewing Quizzes Attempts](#).

Critical Thinking Activities		100 %	
Critical Thinking Activity #1	20 / 20	100 %	 View Graded Rubric
Critical Thinking Activity #2	20 / 20	100 %	 View Graded Rubric

Grading Criteria

It is expected that students understand verbal and/or written instruction. It is the student's responsibility to clarify any information that they are not clear on. Failure to do so may result in natural consequences due to the omissions. Learn more about the [Grading Guidelines at PCC](#).

Grading Scheme

Student scores and current course grade can be viewed by going to Grades in D2L Brightspace. The grading criteria for this course is based on a weighted grading scheme.

Assessment	Weight
Lab Assignments (weekly labs & final project)	60%
Objective Tests (weekly quizzes, midterm & final exam)	30%
Attendance & Participation (discussions, etc.)	10%

Letter Grade	Grading Scale by Percentage
A	90 - 100%
B	80 - 89%
C	70 - 79%
D	55 - 69%
F	< 55%

Late Work & Make-up Policy

Turning work in on time is a core value in our department. Online courses require extra discipline on the part of students. The instructor will clearly communicate due dates and expectations, consistent with other classes. Late lab assignments are accepted, but automatically marked down to a maximum B level grade. Late discussion posts for assigned discussions receive 80% credit. Late quizzes are accepted without penalty. Failure to regularly log into the D2L course shell will impact your attendance and participation score. ***Bulk submissions at the end of the term are not allowed.*** If you wish to submit *any late work during finals week*, contact the instructor to make arrangements.

Please contact me in the event of catastrophic circumstances that prevent you from being able to complete your work on time (hospitalization, family emergency, military deployment, etc.)

CADD Advisor

Have questions about enrolling in CADD classes or completing CADD certificates? Don't hesitate to reach out to **Christopher Hamreus** in Pathway Advising. The best way to get in touch with Chris is via email:

- christopher.hamreus@pcc.edu
- 971-722-6464

PCC Policies

Visit the [PCC Policies](#) page for information on:

- Academic Integrity Policy
- Accessibility Statement & Resources
- Drop/Withdraw Deadlines
- Grading Policy
- Internet Etiquette
- PCC Payment Policy
- PCC Registration Policy
- Sanctuary College
- Student Rights and Responsibilities
- Title IX/Non-Discrimination

Equitable Student Success Statement

PCC is committed to reducing disparities in student outcomes and is working toward these goals through the [YESS program](#). I share this commitment and work to provide a curriculum that serves all students. I aim to continuously improve my instructional skills, and encourage you to share with me techniques that are helpful to your study. I may not be able to implement every request, but promise to do my best to help you achieve your learning goals.

Accessibility and Accommodations Statement

PCC is committed to ensuring that classes are accessible. Disability Services works with students and faculty to minimize barriers. If students elect to use approved academic accommodations, they must provide in advance formal notification from Disability Services to the instructor. Accommodations are not retroactive; they begin when the instructor receives the "Approved Academic Accommodations" letter from you (submitted in person for courses on campus; via email for Distance Learning courses). To request academic accommodations for a disability, please contact a disability services counselor on any PCC campus. Office locations, phone numbers, and additional information may be located on the [Disability Services website](#)

I encourage you to use this resource. Please schedule a meeting with me outside of class to discuss accommodations. Note that Disability Services can provide other supports even if you do not wish to seek formal accommodations. Read more at www.pcc.edu/disability/

Academic Integrity

Students are required to complete this course in accordance with the [Student Rights and Responsibilities Handbook](http://www.pcc.edu/about/policy/student-rights/) [www.pcc.edu/about/policy/student-rights/]. Cheating includes any attempt to defraud, deceive, or mislead the instructor in arriving at an honest grade assessment, and may include copying answers from other students or using unauthorized notes during tests. Plagiarism is a particular form of cheating that involves presenting as one's own the ideas or work of another, and may include using other people's ideas without proper attribution and submitting another person's work as one's own. Dishonest activities such as cheating on exams and submitting or copying work done by others will result in disciplinary actions including but not limited to receiving a failing grade. For further information, review the institution's [Academic Integrity Policy](#).

Title IX Nondiscrimination Statement

PCC is committed to creating and fostering a learning and working environment based on open communication and mutual respect. If you believe you have encountered sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, veteran status, sex, sexual orientation, gender identity, or disability please contact the Office of Equity and Inclusion at (971)722-5840 or equity.inclusion@pcc.edu.

PCC is a Sanctuary College.

"At the heart of Portland Community College is a commitment to diversity, equity and inclusion. These values are essential to the college's mission, to our accreditation themes, to the Board's goals and objectives, and to the college's strategic plan. In keeping with these values, the Portland Community College Board of Directors has moved to apply the term 'sanctuary college' to PCC." -Mark Mitsui, Former Portland Community College President 2016 - 2022

We support our DACA, DREAMers, and undocumented students. Our Sanctuary status means protection of student information as well as a commitment to not allow our personnel to be used for immigration enforcement purposes and to not allow Immigration and Customs Enforcement (ICE) on our campuses or properties unless they carry a subpoena or arrest warrant.

For more information and resources, see www.pcc.edu/resources/undocumented-students/

Land Acknowledgement

We start this course by first acknowledging that Portland Community College rests on the traditional village sites of the Multnomah, Cathlamet, Clackamas, bands of the Chinook, Tualatin Kalapuya, Molalla, and many other Tribes who made their homes along the Columbia River. Multnomah is a band of Chinooks that lived in this area.

We thank the descendants of these Tribes for being the original stewards and protectors of these lands since time immemorial. We also acknowledge that Portland, OR has the 9th largest Urban Native American population in the U.S. with over 380 federally recognized Tribes represented in the Urban Portland Metropolitan area. We also acknowledge the systemic policies of genocide, relocation, and assimilation that still impact many Indigenous/Native American families today.

We are honored by the collective work of many Native Nations, leaders, and families who are demonstrating resilience, resistance, revitalization, healing, and creativity. We are honored to be guests upon these lands. Thank you, and thanks also to our colleagues at the Portland State University Indigenous Nations Studies Program for crafting this acknowledgment.

Student Supports and Services

As a student enrolled at PCC, know and use the services and supports available to you. The Office of the Dean of Students helps students find the support they need, including advising, tutoring and counseling. The SE campus hosts offices for Disability Services, the Veterans Resource Center, the Multicultural Center, the Women's Resource Center, the Queer Resource Center, Panther Food Pantry, Panther Works and Student Help Desk among others. Remember, you can access these resources on any PCC campus.

PCC Libraries

Each PCC campus has a library where students can access a variety of books (including some class textbooks on reserve), journals, videos, and other resources both through PCC's own collection and through loans from other colleges. The libraries also loan laptop computers, graphing calculators, and other technology. **The library at the SE campus has six computer workstations with CADD software programs.** All libraries have computers, printers, and scanners for students to use and offer quiet and collaborative areas for studying, including study rooms that students can reserve. Librarians are available to help students with research – in person or by chat, email, text, or phone. Visit www.pcc.edu/library/.

Food and Housing Insecurity

If you face challenges affording food or housing, this will naturally affect your classwork. PCC wants you to be successful and offers some resources that may help: Emergency Funds (www.pcc.edu/enroll/paying-for-college/emergency-funds.html) and food pantries (www.pcc.edu/student-leadership/services/free-resources/). You can also contact a campus Student Conduct and Retention Coordinator at conductandcare@pcc.edu.

Covid Policy

Students are encouraged to review the [PCC Covid policies and requirements](#). PCC follows the guidelines of local public health departments. PCC does not require the use of facemasks while indoors at PCC locations. While not required, masks are strongly encouraged.

Only come to PCC if you are healthy. PCC students, staff, and faculty should conduct a self-check for COVID-19 symptoms before coming to a PCC location. If you have any COVID-19 signs and symptoms, or have tested positive for COVID-19, regardless of your vaccination status, do not report to campus.

If you have any questions PCC covid policies, please email covidquestions@pcc.edu

Course Schedule

Due Dates

Except where explicitly stated otherwise, due dates for all deliverables (labs, quizzes, exams and discussion posts) are one week from the date assigned, on the following **Monday at 11:59 PM**.

Weekly Schedule

Week	Module Topic	Readings	Assignments
Week 1	Welcome to CADD 160 Module 1: Layouts & Lettering	Syllabus Chapter 2 (pp 30-57)	<i>Intro Quiz</i> Lettering & Title Blocks Lab
Week 2	Module 2: Intro to Technical Sketching	Chapter 3 Overview - Section 3.5 (pp 62-79)	Scale & Proportion Lab
Week 3	Module 3: Intro to Orthographic Projection	Chapter 6 (pp 232-262)	Multiview Drawing Lab
Week 4	Module 4: Intro to Dimensioning	Chapter 11 Overview - Section 11.39 (pp 502-533) & Chapter Summary p 543	Dimensioning Lab
Week 5	Module 5: Auxiliary Views	Chapter 9 Overview - Section 9.16 (pp 362-384)	Auxiliary Views Lab
Week 6	Module 6: Midterm exam		
Week 7	Module 7: Intro to Section Views	Chapter 8 Overview - Section 8.6 (pp 326-336) <i>Review readings to date</i>	Section Views Lab
Week 8	Module 8: Advanced Section Views	Chapter 8 Sections 8.7 - 8.17 (pp 337-346)	Advanced Section Views Lab <i>Working Drawings Project Assigned</i>
Week 9	Module 9: Pictorial Drawings	Chapter 3 Sections 3.6 3.29 (80 - 106) & Chapter Summary p 116	
Week 10	Module 10: Intro to Working Drawings	<i>Review</i>	Pictorial Drawings Lab
Week 11		Final Project	<i>Final Exam released; due end of finals week</i>
Week 12	Module 11: Final exam <i>Due Friday, Dec 13, 11:59pm</i>		<i>Working Drawings Project Due</i>

Flexibility Statement

The instructor reserves the right to modify course content and/or substitute assignments and learning activities in response to institutional, weather or class situations.

Important Dates

Sat Sep 28	Last day to choose financial aid refund option: see MyRefunds
Tue Oct 1	Late registration deadline: instructor approval required
Tue Oct 1	Last day to select audit grade option: see grading options
Tue Oct 1	Last day to drop 8-12 week classes: see how to drop
Wed Oct 30	SAC Inservice (classes starting before 4pm are canceled, classes starting at 4pm and after will be held)
Fri Nov 1	PCC Scholarship application opens
Mon Nov 11	College closed: holiday
Thu Nov 28 - Fri Nov 29	College closed: holiday
Sat Nov 30	Last day to withdraw from 11-12 week classes: see how to withdraw
Sat Nov 30	Last day to change grade option for 11-12 week classes: see grading options
Mon Dec 6 - Sun Dec 15	Final exams