

Blueprint Reading

Instructor: Mr. Isaac Padilla

Email: Padillatwins@unm.edu

Office: WTC 1201C Adjunct Faculty Offices

Office Hours: Mondays 11:30 pm-12:30 pm or
by appointment

Meeting Place and Time:

MWF 9:30-11:30 am

UNM-Valencia Workforce Training Center
Classroom 1108

COURSE DESCRIPTION: This introductory course in blueprint reading will help the student interpret the ideas of others and express them understandably through drawings. It will stress the necessary skills and processes used in architectural drafting. The students will have the opportunity to develop their originality and ingenuity. The material will be taught through classroom and laboratory experiences.

COURSE STUDENT LEARNING

OUTCOMES: In this introductory course on blueprint reading, students will develop the skills necessary to interpret architectural blueprints and drawings accurately. They will demonstrate the ability to create clear and precise architectural drawings utilizing traditional drafting tools and modern software. Throughout the course, students will apply critical thinking and problem-solving skills to address design challenges, enhancing their originality and ingenuity in architectural design. Effective communication of design ideas through drawings and verbal presentations and the importance of collaboration in team projects will be emphasized. By integrating classroom instruction with hands-on laboratory experiences, students will comprehensively understand architectural drafting processes and be well-prepared to produce detailed architectural plans.

TEXTBOOK (S): Print Reading for Construction

ATTENDANCE POLICY: Attendance is required and part of your final grade; there will be a sign-in sheet on the front table daily; it is your responsibility to sign in. If you leave class early or arrive to class late, it will be reflected in your attendance score (unless this is due to school bus transportation issues). Students with excessive absences (over 3) will be dropped from the course. You are late if you are not in class by the start time designated on this syllabus. Three tardies equals one unexcused absence.

Excused absences will require a note.

GRADING POLICY:

class requires a 70% or better passing grade on all exams to pass the certification. Anything below 70 is considered a failing grade. You cannot complete this class with a passing grade for university credit if you fail the certification exams. To receive a passing grade for this course, you must score at least 70 percent in the class, which is 700 points or better.

Grading Scale:

970-1000 A+	930-969 A
900-929 A-	870-899 B+
830-869 B	800-829 B-
770-799 C+	730-769 C
700-729 C-	670-699 D+
630-669 D	600-629 D-
599-0 F	

COURSE OUTLINE:

Week	Activity	Criteria	Points
Week 1	Quiz on basic terminology, symbols, and measuring tools.	Accuracy, completeness	60
Week 2	Quiz on views, projections, and construction math.	Accuracy, completeness	60
Week 3	Quiz on line types, symbols, and drawing practices	Accuracy, completeness	60
Week 4	Group project: Create a basic floor plan for a residential structure	Creativity, accuracy, teamwork	90
Week 4	Group project: Create a basic floor plan for a commercial structure	Creativity, accuracy, teamwork	90
Week 5	Group activity: Create a framing plan for a small residential structure	Accuracy, application of concepts	75
Week 5	Group activity: Create a framing plan for a small commercial structure	Accuracy, application of concepts	75
Week 6	Group activity: Analyze a plumbing blueprint for a small residential project	Analysis, accuracy	60
Week 6	Practice exercises interpreting welding blueprints for residential projects	Accuracy, application of concepts	60
Week 7	Group activity: Analyze a plumbing blueprint for a small commercial project	Analysis, accuracy	60
Week 7	Group activity: Create a welding plan for a small commercial project	Creativity, accuracy, teamwork	75
Week 7	Group activity: Create a welding plan for a small residential project	Creativity, accuracy, teamwork	75
Week 8	Comprehensive project: Interpret and create a complete set of blueprints for a small residential and commercial structure.	Completeness, accuracy, creativity	150
Week 8	Final assessment and feedback session.	Participation, understanding	50
Extra Credit	Additional assignments	Varies	50

Homework/Quizzes: Homework and quizzes will be assigned from text during class and are expected to be completed by the given date.

Module Exams: Module exams will be given at the end of each section.

Performance Evaluations: At the end of each module, there is a performance review. This skill exam tests the use/identification of tools, equipment, and skills. We will go over the performance review together as a class at the end of each module, but the performance reviews will be tested during the final project at the end of the semester.

Late Work: In general, I do not accept late work. All the due dates for assignments are listed clearly in Canvas and on the syllabus, so make sure you keep track of due dates. Extension may be granted if you have extenuating circumstances, such as a death in the family, severe sickness, or a major accident. The student must notify the instructor as soon as possible when an extension is needed.

Extra Credit statement: You can turn in one set of blueprints to earn extra credit.

The following schedule is subject to change should the instructor deem it necessary.

Week	Date	Topic	Monday	Wednesday	Friday
1	Jan 21 - Jan 24, 2025	Introduction to Blueprint Reading	Lecture on the history and importance of blueprints. Introduction to common symbols and terms.	Introduction to measuring tools and scales. Hands-on practice using measuring tools and scales on sample residential blueprints. Group discussion on the purpose of blueprints.	Simple exercises identifying symbols on sample commercial blueprints. Hands-on practice using measuring tools and scales on sample commercial blueprints. Quiz on basic terminology, symbols, and measuring tools.
2	Jan 27 - Jan 31, 2025	Basic Views, Projections, and Construction Math	Lecture on orthographic projections. Introduction to different types of views. Introduction to basic construction math concepts.	Hands-on practice drawing basic views of simple objects. Group activity: Identify views on provided residential blueprints. Practice construction math problems related to measurements and conversions.	Group activity: Identify views on provided commercial blueprints. Practice construction math problems involving area and volume calculations. Review and quiz on views, projections, and construction math.
3	Feb 3 - Feb 7, 2025	Lines, Symbols, and Fundamental Drawing Practices	Lecture on line types. Introduction to additional symbols used in blueprints. Introduction to fundamental	Practice exercises identifying and drawing different lines. Group activity: Identify lines and symbols on	Group activity: Identify lines and symbols on commercial blueprints. Drawing exercises focusing on

			drawing practices.	residential blueprints. Drawing exercises focusing on basic shapes and perspective.	proportion and scale. Quiz on line types, symbols, and drawing practices.
4	Feb 10 - Feb 14, 2025	Reading Architectural Blueprints	Lecture on architectural blueprint components. Introduction to residential architectural blueprints.	Hands-on activity reading and interpreting a simple house blueprint. Group project: Create a basic floor plan for a residential structure.	Hands-on activity reading and interpreting a commercial building blueprint. Group project: Create a basic floor plan for a commercial structure.
5	Feb 17 - Feb 21, 2025	Framing Blueprints	No Class - Presidents' Day	Lecture on framing blueprint components. Introduction to residential framing blueprints.	Practice exercises interpreting framing blueprints for residential and commercial projects. Group activity: Create a framing plan for a small residential and commercial structure.
6	Feb 24 - Feb 28, 2025	Plumbing and Welding Blueprints	Lecture on plumbing symbols and systems. Introduction to residential plumbing blueprints.	Hands-on practice reading and creating simple plumbing diagrams for residential buildings. Group activity: Analyze a plumbing blueprint for a small residential project.	Lecture on welding blueprint components. Introduction to residential welding blueprints. Practice exercises interpreting welding blueprints for residential projects.
7	Mar 3 - Mar 7, 2025	Plumbing and Welding	Hands-on practice reading and creating	Practice exercises interpreting	Group activity: Create a welding

		Blueprints (Continued)	simple plumbing diagrams for commercial buildings. Group activity: Analyze a plumbing blueprint for a small commercial project.	welding blueprints for commercial projects. Group activity: Create a welding plan for a small commercial project.	plan for a small residential project.
8	Mar 10 - Mar 14, 2025	Review and Practical Application	Review sessions for each topic covered in the previous weeks. Focus on residential blueprints.	Review sessions for each topic covered in the previous weeks. Focus on commercial blueprints.	Comprehensive project: Interpret and create a complete set of blueprints for a small residential and commercial structure. Introduction to Final Project: Outline the requirements and expectations for the final project. Discuss the timeline, deliverables, and evaluation criteria. Final assessment and feedback session.

Credit-hour statement: This is a three-credit-hour course. Class meets MWF for 120-minute direct instruction sessions for eight weeks during the Spring of 2025. Please plan for at least eight hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

Academic Integrity and/or Plagiarism Policy:

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: <https://policy.unm.edu/regents-policies/section-4/4-8.html>. The policy states:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet

the expected standards. Any student judged to have engaged in academic dishonesty in coursework may receive a reduced or failing grade for the work in question and/or for the course.

Academic Dishonesty is defined as:

"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

ELECTRONIC DEVICE USAGE: Phone usage is not allowed in class. Phones must be on silent. If caught on your phone without permission, you will lose participation points for the day—using cell phones while in the lab for testing is strictly prohibited. During testing, they must be silenced and placed in your backpack or on the instructor's desk.

Accommodations: UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact the [UNM-Valencia Equal Access Services](#) (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at sjclawson@unm.edu. Or the UNM-Albuquerque Accessibility Resource Center (<https://arc.unm.edu/>) at arcsrvs@unm.edu or by phone at 505-277-3506.

Title IX: UAP 2720 and 2740. Our classroom and university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. If you ever need assistance or have concerns about incidents that violate this principle, please access campus support resources. These include confidential services at [LoboRESPECT Advocacy Center](#), the [Women's Resource Center](#), and the [LGBTQ Resource Center](#). The University of New Mexico prohibits discrimination on the basis of sex (including gender, sex stereotyping, gender expression, and gender identity). UNM faculty and graduate teaching assistants are considered "responsible employees." "Responsible employees" must [communicate reports](#) of sexual harassment, sexual misconduct and sexual violence to [Compliance, Ethics and Equal Opportunity](#). For more information on the campus policy regarding sexual misconduct, reporting, and reporting for "responsible employees," please see [UAP 2720](#) and [UAP 2740](#).

If you are pregnant or experiencing a pregnancy-related condition, you may contact UNM's Office of Compliance, Ethics, and Equal Opportunity at ceeo@unm.edu. The CEEO staff will provide you with access to available resources and supportive measures and assist you in understanding your rights. [Pregnancy and Parenting Support information](#) is available here.

Computer Lab Responsibility: Please be advised that use of the computer labs on UNM properties is governed by "Policy 2500: Acceptable Computer Use" which can be found at <http://policy.unm.edu/university-policies/2000/2500.html>. Food and drink are also prohibited in any computer labs on campus. Anyone violating these policies is subject to possible suspension and loss of computer lab privileges.

UNM Email/ Canvas:

Beginning Fall 2015 semester, all UNM-Valencia students must have a UNM Net ID which can be created by going to: <http://it.unm.edu/accounts/>. UNM Net ID will give you access to the computer labs

on campus and UNM Email. Make sure to update this information as your contact method under personal information on Lobo Web. This is a web-enhanced course. This means that you will need to access Canvas regularly to complete assignments