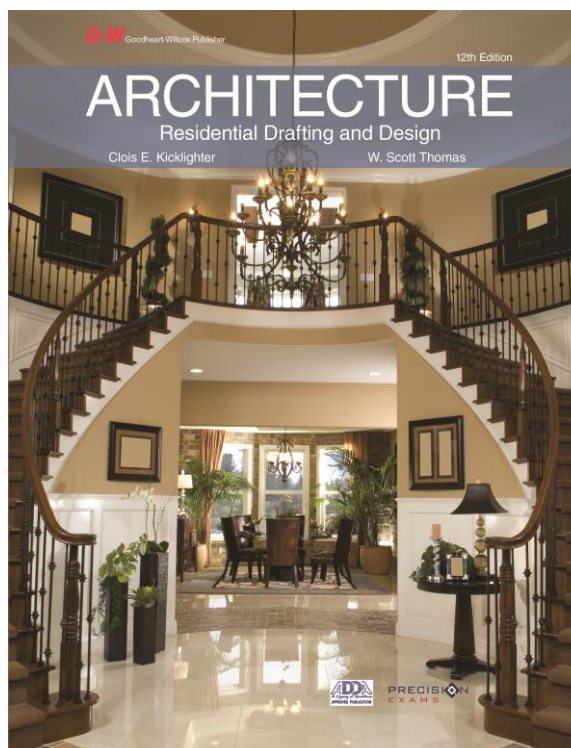


Correlation of
***Architecture*, Kicklighter and Thomas**
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to
Precision Exams Architectural Design I

Goodheart-Willcox is pleased to partner with Precision Exams by correlating *Architecture* to their Architectural Design I standards. Precision Exams standards and Career Skills Exams were created in concert with industry and subject matter experts to match real-world job skills and marketplace demands. Students that pass the exam and performance portion of the exam can earn a Career Skills Certification.

The correlation chart below lists the Standards, Objectives, and Indicators for the Architectural Design I exam in the left column. Corresponding content from *Architecture* that can be used by a student to help achieve the standard, objective, or indicator is listed in the right column.

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Standards / Objectives / Indicators	Textbook Pages
Standard 1: Understand, Demonstrate, and Apply Mathematics and Measuring Skills.	
Objective 1. Demonstrate and apply related mathematics.	143, 602, 784, 786, 796, 824
Indicator 1 Perform basic arithmetic functions.	
<ul style="list-style-type: none"> Add, subtract, multiply, and divide whole numbers. 	78, 337, 600–601
<ul style="list-style-type: none"> Add, subtract, multiply, and divide fractions. 	103, 404
<ul style="list-style-type: none"> Add, subtract, multiply, and divide decimals. 	76, 103, 337

Standards / Objectives / Indicators	Textbook Pages
Indicator 2 Convert fractions/decimals.	
<ul style="list-style-type: none"> Convert fractions to decimal equivalents. 	446
<ul style="list-style-type: none"> Convert decimal values to nearest fractional equivalent. 	446
Objective 2. Demonstrate an ability to make and record basic measurements.	
Indicator 1 Use scales, measuring tapes, and other techniques to take measurements.	73, 76–78, 429
Indicator 2 Make and use measurements using fraction, foot-inch, and decimal-foot scales.	76–77, 104, 337
Indicator 3 Record measurements using Cartesian and polar coordinates, as well as absolute and relative distances.	105–106
Standard 2: Understand and Demonstrate Drawing Techniques.	
Objective 1. Demonstrate proper sketching techniques.	
Indicator 1 Create freehand sketches using paper, pencil, and an eraser (without the benefit of a straightedge, compass, or template) which is neat, clear, and smudge-free.	337, 381, 390, 655, 719
Indicator 2 Understand and demonstrate the use of the alphabet of lines. Demonstrate the use of lines as they are drawn according to the alphabet of lines.	87, 108
Indicator 3 Produce a one-view sketch of an object using proportional relationships.	78, 382
Indicator 4 Use letters and numerals that conform to an architectural style.	80, 89, 91–92, 386
Indicator 5 Demonstrate how words and letters are to be evenly spaced.	80
Indicator 6 Understand and demonstrate the use of perspective views.	146, 634, 644, 652–653
Indicator 7 Understand and use accepted dimensioning practices for sketches.	71, 88, 107, 116, 122
Objective 2. Demonstrate an ability to create architectural drawings to a professional standard.	
Indicator 1 Demonstrate exactness when producing drawing geometry.	72, 116, 125, 280
Indicator 2 Drawing elements are accurate and drawn to scale.	111, 684, 794

Standards / Objectives / Indicators	Textbook Pages
Indicator 3 Use and know correct geometric construction techniques.	39, 121
Indicator 4 Construct lines as defined by the alphabet of lines.	87, 108
Indicator 5 Understand and correctly use object, hidden, and center lines.	88
Indicator 6 Understand and correctly use dimension lines, extension lines, and leader lines.	88–89
Indicator 7 Identify border lines, phantom lines, and section lines and know their uses.	87–89
Indicator 8 Know and follow accepted architectural dimensioning standards to apply the appropriate dimensions to drawings.	71
<ul style="list-style-type: none"> Understand and choose the best location for dimensions. 	58
<ul style="list-style-type: none"> Apply appropriate spacing between the object and the first dimension. 	332–336
<ul style="list-style-type: none"> Apply uniform spacing between dimension lines. 	166, 332–336
<ul style="list-style-type: none"> Demonstrate an ability to fully dimension the object. 	332–336
<ul style="list-style-type: none"> Demonstrate the correct use of leaders and notes. 	89, 111, 118, 298, 335
<ul style="list-style-type: none"> Use appropriate angles for leaders. 	89
<ul style="list-style-type: none"> Use appropriate leader line terminators. 	89
Objective 3. Apply the appropriate notes to drawings.	
Indicator 1 Understand the placement and use of title block information.	82, 111
Indicator 2 Understand the placement and use of general notes.	755
Indicator 3 Use the correct text height.	111, 336, 389
Indicator 4 Use architectural style letters and numerals.	87–92
Standard 3: Develop and Demonstrate an Ability to Use Computer Software to Create Architectural Drawings.	
Objective 1. Know how to save, open, rename, and move data files using common computer operating system software.	

Standards / Objectives / Indicators	Textbook Pages
Indicator 1 Create a new drawing setup to support architectural standards.	111–112, 290–291
Indicator 2 Create drawing setups for different sizes of drawing formats.	111–112, 290–291
Objective 3. Revise existing architectural drawings using 2D or 3D computer-aided design software features.	99
Objective 4. Produce hard copies of drawings using correct printer/plotter settings.	102–103, 298
Indicator 1 Print/plot drawings using the appropriate scale settings.	99–100, 102–103, 111
Indicator 2 Print/plot drawings with correct line widths.	107–108
Standard 4: Understand Architectural Design Fundamentals.	
Objective 1. Identify the historical influences that contributed to current home styles.	3–23
Objective 2. Recognize and describe the design elements of contemporary dwellings.	3–23
Objective 3. Discuss current trends in architecture.	28–29
Objective 4. List family needs that should be considered when planning a dwelling.	135–141
Objective 5. Discuss accessibility requirements for good functional utility.	141–142, 155–157, 159
Standard 5: Understand and Apply Architectural Room Planning for the Sleeping, Living, and Service Areas.	
Objective 1. Discuss factors important in the design of bedrooms, bathrooms, and closets. Apply those design elements to sketches and drawings.	185–202
Objective 2. Discuss factors important in the design of family rooms, living rooms, entryways, foyers, porches, and courts. Apply those design elements to sketches and drawings.	155–181
Objective 3. Discuss factors important in the design of kitchens, clothes care centers, and garages. Apply those design elements to sketches and drawings.	205–223
Objective 4. Discuss home construction costs using the cost per square foot. Discuss cost per type of construction, affordability, and the cost of amenities.	823–833
Standard 6: Understand How to Lay Out a Residential Floor Plan.	
Objective 1. Draw a residential floor plan using the accepted symbols and techniques.	327–335, 341–348

Standards / Objectives / Indicators	Textbook Pages
Objective 2. List the information required on a typical floor plan.	328–343
Objective 3. Represent typical materials using standard architectural symbols.	328–333, 335, 341–342
Objective 4. Draw the dimensions of a floor plan in a clear and precise manner which complies with architectural standards.	332–337
Objective 5. Recognize the difference between a good and poor drawing of a floor plan.	162–163
Standard 7: Understand How to Analyze, Calculate, and Design Footings and Foundations.	
Objective 1. List the major considerations when designing a footing for a residential foundation.	432–434
Objective 2. Analyze a typical floor plan to determine the appropriate foundation.	433–441
Standard 8: Understand How to Lay Out Exterior Elevations.	
Objective 1. List features that should be included on an exterior elevation.	565–573
Objective 2. Identify the dimensions commonly shown on elevations.	570, 572, 576–577
Objective 3. Illustrate symbols that are often found on elevations.	570, 572–574, 576–577
Objective 4. Draw a typical exterior elevation which demonstrates proper techniques.	573–580
Standard 9: Understand How to Lay Out Wall Construction.	
Objective 1. Name the components of a typical frame wall.	485–489
Objective 2. Draw and label a typical wall section and full cross sections.	502, 510, 513, 546–550
Standard 10: Understand How to Complete a Door and Window Schedule.	
Objective 1. Draw a window schedule that would include window size, make, material, and type of glazing.	113–114, 537–541
Objective 2. Draw a door schedule that would include door size, style, type of lock set, special features, and jamb size.	113, 520, 523–526