

**2010/2011 DoDEA Student Competency Record**  
**Applied Architecture Drawing**  
PTE405 - 36 weeks

<hr/> <b>Student</b>	<hr/> <b>School Year</b>
<hr/> <b>Grade</b>	<hr/> <b>Term (fall, spring)</b>
<hr/> <b>School</b>	<hr/> <b>Teacher Signature</b>

Mastery is a level of performance that indicates a student has demonstrated the knowledge, skills, and abilities for a unit of instruction or subject area as defined by a recognized standard. DoDEA defines mastery as being competent in the task and non-mastery as needing task remediation.

As students complete each competency, the student or teacher should assess the student's level of performance and mark the appropriate column next to the competency. This record should be used to provide information about competencies mastered to employer, student-employee, or another school/teacher.

PTE405 36 weeks	<b>Applied Architecture Drawing TASKS/COMPETENCIES</b>	Mastery	Non- Mastery
<b>Implementing DoDEA's CTE Course Requirements</b>			
• 001	Demonstrate DoDEA's Workplace Readiness Skills in course activities.		
• 002	Identify issues related to this field of study that affect the environment and impact local and global communities.		
• 003	Identify Internet safety issues and procedures for complying with acceptable use standards.		
<b>Investigating the Architecture Profession and Related Careers</b>			
• 004	Dialogue with professionals in the field of study.		
• 005	Create or update a portfolio containing representative samples of student work.		
<b>Relating Objectives of the Course to Students in a Technological World</b>			
• 006	Describe methods of continuing education and professional development for architects.		
• 007	Describe the management responsibilities of architects.		
• 008	Explain benefits of study of the humanities and social science.		
• 009	Describe the impact of architecture on society and the environment.		
• 010	Demonstrate a professional attitude toward classroom and laboratory activities.		
• 011	List and describe factors and methods of financing.		
• 012	Create a proposal for an architectural project.		

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<b>Communicating Technical Information</b>			
• 013	Write a technical report for an architectural activity.		
• 014	Justify and defend design choices for a project.		
<b>Reviewing the Architectural Design Phase</b>			
• 015	Order and sequence construction phases of a residence.		
• 016	Describe the objectives of a feasibility study.		
• 017	Explain the use of the evaluation table during the preliminary design phase.		
• 018	Use anthropometric tables and ergonomic design.		
• 019	Apply basic building codes to architectural designs.		
<b>Project level skills</b>			
• 020	Implement architectural styles.		
• 021	Develop and design electrical and plumbing plan requirements.		
• 022	Integrate LEED (Leadership in Energy and Environmental Design) certification requirements into building design.		
<b>Computer Modeling Skills</b>			
• 023	Gain advanced computer-aided drawing/design (CAD) ability in drawing and dimensioning architectural designs.		
• 024	Create a mass model of a building design.		
• 025	Develop a site analysis.		
• 026	Design a foundation plan.		
<b>Finishing the Project</b>			
• 027	Create door and window schedules.		
• 028	Prepare detail-section views and interior and exterior elevations.		
• 029	Apply advanced principles of dimensioning and annotations.		
• 030	Render presentation designs.		
• 031	Create a walk-thru presentation of a portion of a building.		
• 032	Build presentation models.		
<b>Using the Design Process as a Group Study</b>			
• 033	Integrate anthropometric tables and ergonomic design.		
• 034	Critically evaluate peer work through the use of constructive feedback and rating systems.		
• 035	Formulate an alternate design solution to a problem.		
<b>Preparing an Architectural Case Study</b>			
• 036	Identify and describe architectural problems and their solutions.		
• 037	Describe the application of mathematics.		
• 038	Describe the application of scientific principles in the solution of architectural problems.		
• 039	Describe the application of technology in the solution of architectural problems.		
• 040	Prepare a model demonstrating an architectural problem and its solution.		

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• 041	Use architectural graphics to describe the solution of an architectural problem.		
• 042	Describe the social, cultural, and environmental impact of an architectural project.		
<b>Observing Designs in Nature</b>			
• 043	Describe characteristics of natural materials used in selected products.		
• 044	Identify organic structures on which architectural designs may be based.		
• 045	Identify examples of the honeycomb structure in nature and architectural designs.		