

- 01.00.00** **CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN**
- 01.01.00** **WINDOWS**
- Functional Area:** During this unit of instruction the student will obtain a basic understanding and overview of the common characteristics of windows. The student will learn about the various types of window treatments that can be added to window materials to achieve differing results in terms of strength, reflectivity, light transmission, transparency, and energy efficiency. The student will learn common window terminology.
- 01.01.01** **Learning Objective(s):** The student will be able to discuss the basic reasons for the installation of windows.
- 01.01.02** **Learning Objective(s):** The student will be able to discuss the advantages and disadvantages regarding the direction that windows face.
- 01.01.03** **Learning Objective(s):** The student will be able to list a variety of CPTED reasons for the installation of windows.
- 01.01.04** **Learning Objective(s):** The student will be able to articulate conflicting views of Federal agencies recommendations in the placement of windows.
- 01.01.05** **Learning Objective(s):** The student will be able to define "heat gain/loss."
- 01.01.06** **Learning Objective(s):** The student will be able to define "u-factor."
- 01.01.07** **Learning Objective(s):** The student will be able to define "solar heat coefficient."
- 01.01.08** **Learning Objective(s):** The student will be able to define "bullet resistant" glass.
- 01.01.09** **Learning Objective(s):** The student will be able to define "spalling."
- 01.01.10** **Learning Objective(s):** The student will be able to define "fire integrity."
- 01.01.11** **Learning Objective(s):** The student will be able to define "service life" of glass.
- 01.01.12** **Learning Objective(s):** The student will be able to define "standard glass."
- 01.01.13** **Learning Objective(s):** The student will be able to define "tempered glass."
- 01.01.14** **Learning Objective(s):** The student will be able to "wired glass."
- 01.01.15** **Learning Objective(s):** The student will be able to define "laminated safety glass."
- 01.01.16** **Learning Objective(s):** The student will be able to define "security film."
- 01.01.17** **Learning Objective(s):** The student will be able to define the term "glaze" or "glazing."
- 01.01.18** **Learning Objective(s):** The student will be able to list a variety of types of glass and glass alternative materials.
- 01.01.19** **Learning Objective(s):** The student will be able to define what constitutes a "gas fill" window.
- 01.01.20** **Learning Objective(s):** The student will be able to list the two most common types of gas fill for windows.
- 01.01.21** **Learning Objective(s):** The student will be able to list several of the characteristics of heat-absorbing tints for glass.
- 01.01.22** **Learning Objective(s):** The student will be able to identify the various color renditions of heat absorbing film relative to its application and effect.
- 01.01.23** **Learning Objective(s):** The student will be able to define what constitutes insulated glass.

- 01.01.24** **Learning Objective(s):** The student will be able to define what constitutes low-emissivity glass, also known as "low-e" glass.
- 01.01.25** **Learning Objective(s):** The student will be able to discuss the effects of "low-e" glass film that is applied to the inside of a window.
- 01.01.26** **Learning Objective(s):** The student will be able to discuss the effects of "low-e" glass film that is applied to the outside of a window.
- 01.01.27** **Learning Objective(s):** The student will be able to list the characteristics of "soft coat" low-e film.
- 01.01.28** **Learning Objective(s):** The student will be able to list the characteristics of "hard coat" low-e film.
- 01.01.29** **Learning Objective(s):** The student will be able to define the term "reflective glass."
- 01.01.30** **Learning Objective(s):** The student will be able to define the term "spectrally selective glass."
- 01.01.31** **Learning Objective(s):** The student will be able to list the basic characteristics of laminated safety glass.
- 01.01.32** **Learning Objective(s):** The student will be able to list the primary applications for laminated safety glass.
- 01.01.33** **Learning Objective(s):** The student will be able to list the basic characteristics of tempered glass.
- 01.01.34** **Learning Objective(s):** The student will be able to list the primary applications for tempered glass.
- 01.01.35** **Learning Objective(s):** The student will be able to list the basic characteristics of embedded wire glass.
- 01.01.36** **Learning Objective(s):** The student will be able to list the primary applications for embedded wire glass.
- 01.02.00** **GLASS ALTERNATIVES**
- Functional Area:** During this unit of instruction, the student will learn of the availability of and application for alternative materials for glass, such as polycarbonate and acrylic. .
- 01.02.01** **Learning Objective(s):** The student will be able to list several of the alternative materials available for use in windows other than glass.
- 01.02.02** **Learning Objective(s):** The student will be able to list several of the characteristics of acrylic materials.
- 01.02.03** **Learning Objective(s):** The student will be able to list several of the characteristics of polycarbonate materials.
- 01.02.04** **Learning Objective(s):** The student will be able to list several of the characteristics of protective film.
- 01.03.0** **WINDOW OPERATIONS**
- Functional Area:** During this unit of instruction, the student will learn of the various common types of ways that windows operate.
- 01.03.01** **Learning Objective(s):** The student will be able to identify a variety of types of window operation mechanisms.
- 01.03.02** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of an awning style window.

- 01.03.03** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of a casement style window.
- 01.03.04** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of fixed style window.
- 01.03.05** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of hopper style window.
- 01.03.06** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of single or double hung window.
- 01.03.07** **Learning Objective(s):** The student will be able to recognize and describe the operational characteristics of single or double sliding window.
- 01.04.0** **CPTED GUIDELINES FOR WINDOWS**
- Functional Area:** In this unit of instruction, the student will learn the recommendations for placement of windows, including the proper style and design characteristics of the glass or alternative material. The student will learn of the importance of two-way visibility in most window applications and the deterrent effect of having that characteristic. The student will learn the basic recommendations to make to users of windows to enhance the safer use of the windows.
- 01.04.01** **Learning Objective(s):** The student will be able to state the basic CPTED principle regarding the need for the proper placement and use of windows.
- 01.04.02** **Learning Objective(s):** The student will be able to discuss the fact that the optimum use of windows is a direct function of the architectural design of the building.
- 01.04.03** **Learning Objective(s):** The student will be able to list the primary desire of having two-way visibility in window applications.
- 01.04.04** **Learning Objective(s):** The student will be able to list the primary desire of having one-way visibility in window applications.
- 01.04.05** **Learning Objective(s):** The student will be able to recommend a variety of applications that may be used to achieve the desired result of having either one-way or two-way visibility.
- 01.04.06** **Learning Objective(s):** The student will be able to list several examples of how and why to properly place windows for two-way use.
- 01.04.07** **Learning Objective(s):** The student will be able to list several examples of how to maximize, and not restrict, the view into or out of the building.
- 01.04.08** **Learning Objective(s):** The student will be able to list several examples of how and why to properly place windows for one-way use.
- 01.04.09** **Learning Objective(s):** The student will be able to list several examples of how to maximize, and not restrict, the view when one-way visibility is desired.
- 01.04.10** **Learning Objective(s):** The student will be able to recommend ways that users can optimize the use of windows and window treatments, such as blinds.
- 01.04.11** **Learning Objective(s):** The student will be able to discuss the importance of having secondary locks on windows
- 01.04.12** **Learning Objective(s):** The student will be able to articulate the need for users to keep windows locked, even when in open positions.
- 01.04.13** **Learning Objective(s):** The student will be able to articulate the desire to have all window openings contacted when an alarm is installed.
- 01.04.14** **Learning Objective(s):** The student will be able to state the optimum distance that shrubs and bushes located below windows should be trimmed.

01.04.15 **Learning Objective(s):** The student will be able to state the optimum distance that tree limbs should be trimmed up from the ground to maximize visibility from windows.

01.04.16 **Learning Objective(s):** The student will be able to discuss the appropriate use of lighting near windows.

01.04.17 **Learning Objective(s):** The student will be able to discuss the appropriate and inappropriate use of fences and similar barriers near windows.

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