#### **Alaska**

# **Project Management for Contractors**

# Course #11063 Syllabus



#### **Course Description**

This fully narrated eight hour course focuses on the primary responsibilities of a project manager: managing project costs and time, while completing the project to the expected degree of quality. This requires close attention to detail before beginning actual construction, as well as during the project. Taking proactive measures will help the project manager determine possible obstacles before they occur. This course will analyze all three primary areas. The student will learn how to implement proven methods to manage most effectively.

Students will also learn of building features and equipment systems as they pertain to energy efficiency, helping students recognize how these methods can ultimately reduce and conserve energy consumption. They will identify how moisture enters the structural cavities of a building and how to avoid these problems using the correct installation of thermal and weather resistant building components.

Learning objectives are provided to facilitate student understanding and progress. Informal progress checks throughout each module help students review and measure their understanding of the material. The chapter assessments accurately reflect the information covered. Students must answer 70% of the questions correctly in order to receive credit/certification for the course.

#### **COURSE OUTLINE**

#### **Chapter 1- Cost Management (60 Minutes)**

\*Learning Objectives: 1) Explain the steps necessary to develop a project budget. 2) Describe the primary elements of procurement.

- 1. Project Budget
- 2. Change Orders
- 3. Bidding & Estimating
- 4. Procurement
- 5. Labor
- 6. Unit Costs

#### Chapter 2- General Guidelines of Lending (45 Minutes)

\*Learning Objectives: 1) List four elements of a typical construction loan. 2) Describe the process of completing a Sworn Statement. 3) Describe two examples of common cost overruns.

1. Loans

- 2. Sworn Statements
- 3. Lien Wavers
- 4. Project Funds

# **Chapter 3- Time Management (90 Minutes)**

\*Learning Objectives: 1) Describe how to develop a Critical Path 2) Explain the features of an Activity Node.

- 1. Subcontractors
- 2. Critical Path
- 3. Computers/Software
- 4. Scheduling

## **Chapter 4- Quality Control (30 Minutes)**

\*Learning Objectives: 1) Describe the benefits of good communication with subcontractors. 2) List several elements of a construction Daily Log Book.

- 1. Management
- 2. Materials/Craftsmanship
- 3. Daily Log Book
- 4. Standards

## **Chapter 5- Erosion Control (30 Minutes)**

\*Learning Objective: 1) Understand the contractor's responsibility for erosion control.

- 1. Best Practices
- 2. Sediment Fences
- 3. Storm Water Management

#### **Chapter 6- Green Job Site (40 Minutes)**

\*Learning Objectives: 1) Explain the benefits of energy efficient solar design and landscaping. 2) Describe some of the problems and solutions surrounding job site recycling.

- 1. Energy Efficient Solar Design
- 2. Job site Recycling
- 3. Heat Transfer and Thermal Imaging Video
- 4. Air Barriers Video

# Chapter 7- Energy Efficiency/Moisture Intrusion (90 Minutes)

\*Learning Objectives: 1) Describe details regarding the building features and equipment systems as they pertain to energy efficiency. 2) Recognize how the energy code can ultimately reduce and conserve energy consumption 3) Understand what measures can be taken to incorporate these changes into construction projects/design 4) Identify how moisture enters the structural cavities of a building and how to avoid these problems in the first place 5) Recognize the importance of correct installation for thermal and weather resistant building components.

## **Energy Efficiency**

- 1. 2009 IECC: Administration and Definitions
- 2. Meeting IECC requirements: insulation, duct design, window selection, lighting, HVAC and geothermal
- 3. Insulation Video

#### **Moisture Intrusion**

- 1. Ground Water Problems
- 2. Humidity
- 3. Windows, Doors and Siding
- 4. How Moisture Penetrates the Roof/Ceiling: shingles, flashing, drip edge
- 5. Ventilation
- 6. Wind and Coastal

#### Review (15 Minutes)

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