Date: June 7, 2010
Course Number: WPE 255
Course Title: Plan Interpretation and Quantity Takeoff

☑ New Course  OR  ☐ Changes in existing course (check all that apply):

☐ Prefix
☐ Number
☐ Credits
☐ Title
☐ Description
☐ Pre-requisite(s)
☐ Co-requisite(s)
☐ Shared Resources
☐ Course Format
☐ Content
☐ Semester Offered

This course meets the General Education standards in the following knowledge and skills area (check all that apply):

☐ American History
☐ The Arts
☐ Basic Communication
☐ Humanities
☐ Mathematics
☐ Natural Sciences
☐ Other World Civilizations
☐ Social Sciences
☐ Western Civilization

Prerequisites or co-requisite requirements:

☑ Prerequisites: None  ☑ Co-requisites: None

Institutional Impact:

Anticipated Enrollment: 15-20 per semester

Technology and Classroom Resource Demands:
Computer and computer projection system, document camera projector, internet access, smart board and white board, video, VHS and DVD capability

Computing Resources:
Student computer laboratory with server capacity and student computer configuration to allow rapid data storage and access for recommended software for word processing, spreadsheet and presentation development, estimating and internet access

Library Resources:
Means Building Construction Cost Data reference

Transportation Requirements:
None

Forest Properties or Field Practicum Facilities:
None
Required:
Health and Safety Considerations:

Conditions or situations present in association with the course?

1. **Will substances with any of the following properties be used during instruction?** flammability, toxicity, corrosivity, reactivity, registered pesticide, legally controlled, or other characteristics with the potential to cause harm or injury? **No**

2. **Will any physical hazards be present during instruction?** (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.). **No**

3. **Will any biological hazards be present during instruction?** (e.g., handling animals (rabies or hantavirus); cultures or stocks of infectious agents (fungal spores, viruses, bacteria, etc.). **No**

4. **Will any radiation hazards be present during instruction?** (e.g., radioisotopes, X-rays, ultraviolet rays, lasers, etc.). **No**

5. **Will any electrical equipment that, due to its design, location, or method of use, pose any threat to safety during instruction?** (Give considerable thought to electrical use outdoors, or any potentially wet location.). **No**

6. **Will there be any personal safety issues related to the class?** (e.g., due to time of day or location, at the end of any organized class exercise, will students be in danger of physical assault, etc.). **No**

7. **Will any students be driving official state or research sponsored land or water vehicles during any class or instructional exercise?** **No**

8. **Will any type of personal protective equipment be necessary during class exercises?** (e.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.) **No**

If the answer was “Yes” to any of the HEALTH AND SAFETY questions, please explain:

**CATALOG DESCRIPTION** (Please provide using the precise format currently used in the ESF catalog, please do not exceed 500 characters):

WPE 255. Plan Interpretation and Quantity Takeoff (3)
Three hours of lecture/discussion per week. Introductory course in construction plan interpretation and quantity takeoff. Will address how to read and interpret construction plans and introduce basic quantity takeoff skills. Fall.

Prerequisite(s): None
DETAILED COURSE DESCRIPTION

COURSE: WPE 255 Plan Interpretation and Quantity Takeoff
3 Credit Hours – Fall Semester
3 Hours Lecture/discussion per Week
Prerequisite(s): none

SCOPE:

1. **Level of Instruction:**
   a. WPE 255 is an introductory elective course intended to fulfill lower division requirements.

2. **Relation to curriculum or to other ESF or Syracuse University courses:**
   a. WPE 255 is a required course offered by SCME Faculty. This course is open to all disciplines at ESF and SU. This course will become an elective in the CM minor at a later date.
   b. Shared resource requirements: none, a graduate offering is not planned.

STUDENT LEARNING OUTCOMES:

After completing this course the student should be able to:

1. Interpret a set of construction documents, including prints, in order to successfully estimate, schedule, bid and manage a construction project.
2. To recognize and successfully interpret the various lines, symbols and notes found in a set of construction documents.
3. Determine if a set of construction documents is complete for the project.
4. To know and understand the relationships between the prints themselves and the building systems being presented to successfully visualize and realize the makeup of the overall construction project.
5. Recognizing issues within the prints in order to solve the construction problems that result from them.
6. Recognize configuration issues that affect the project safety concerns.
7. Identify new materials in order to properly plan the installation process/sequence.
8. Successfully quantify the materials for use in a project estimate.

MAJOR CONCEPTS OR METHODOLOGIES:

An introduction to plan reading and interpretation utilizing actual construction plans and specifications. Key concepts will include what is a complete set of plans and specifications, how to evaluate the plans and specifications and how to interpret the plans by learning the various symbols and what they represent in the construction process. Examples of products along with digital photographs will be used to develop this understanding. The course will also emphasize skill development in quantity takeoffs. The process and procedures for proper quantity takeoffs will be developed along with the use of Microsoft Excel to expedite routine calculations used in quantity takeoff. Upon completion of the course students should be able to read and understand construction plans and specifications and perform quantity takeoffs utilizing those construction plans and specifications.
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Prerequisite(s): none

COURSE HISTORY:
This course has never been taught at ESF.
Last approved: never.

Date of initial creation: Feb. 12, 2010