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COURSE TITLE: ESTIMATING 201 – ELECTRICAL ESTIMATING APPRENTICESHIP

Semester: November 6, 2018 to March 19, 2019
Location: Via joint participation online
Class Times: Tuesday and Thursday, 1 pm – 3:00 pm EST
Instructors: Marc Candels, Linda Candels, and the Candels Estimating Team
Req'd Text: Computer with internet access including speakers and a microphone, calculator, NEC Code Book (NFPA70)

Course Description:

Estimating 201, Estimating Apprenticeship, is a comprehensive course designed to introduce and acclimate the beginner estimator to the electrical estimating field. It's called an apprenticeship because each student will be learning the trade of electrical estimating. The course spans 4 months and ***includes classroom instruction and student instructor "one on one" training with access to all the software programs used during the class.*** Estimating theory, the estimator's role, types of bids, the estimating process, specification review and interpretation, take-offs, bid solicitation and vendor relations, and the NEC will all be discussed. Each student will perform several different types of estimates and write corresponding proposals for each. Students will also be required to complete current projects during class.

Learning Objectives:

The goal is for each student to be able to complete a variety of take-offs independently by the end of the course, in preparation for further advancement in both estimating education and employment.

Rules for Success (Student Responsibilities):

Each student is expected to participate in class each session. ***Sessions are 2 hours each on both Tuesday and Thursday PLUS student instructor "one on one" training with access to all the software.*** To succeed in this class, each student must be prepared for each class session and must complete all assignments. In the event of an absence, you must inform your instructor before the start of the class and make arrangements for class make-up. Failure to inform instructor will be considered an unexcused absence. Three *unexcused* absences will constitute failure and forfeiture of tuition.

Segment I – The “Basics”

This segment will introduce students to the estimating world, including estimating theory, the role of the estimator, types of bids and more. We'll explain the estimating process, which we term *BADASS™*.

Next the class will be guided through how to review all bid documentation, including the Invitation to Bid, Scope of Work, alternates and allowances, bid forms, and specifications. We will thoroughly review the specifications, from the front end documents to the electrical. Plus, we'll review related sections that will affect your estimate.

Finally, the basics conclude with a review of building construction, including descriptions and depictions of all ceiling and wall types and other information so the student can visualize what is shown on the drawings. Then we review all drawing types, and what to look for on the civil, architectural, mechanical and other prints.

Segment II – The Quantitative Take-Off

This segment will introduce the student to the elements of a quantitative take-off, including counts, measuring feeders, interpreting specs, setting up the project, and so much more. We'll walk you through how to prepare vendor quote material for lighting, switchgear, fire alarm and any other required systems. We will also show you an effective way to deal with keyed notes (this is troublesome for a lot of estimators!).

Any good take-off, of course, starts with an understanding of the building and its construction. Before we begin each project, we will review the wall and ceiling types as they are the major determining factors in determining wiring methods, and whether any additional equipment, such as lifts, will be required. Step by step, we will go through all the systems of a typical project, including lighting, branch devices, fire alarm, tel/data, feeders (distribution system), generators, and HVAC and mechanical equipment connections. Each system has its own set of challenges and we will do our best to give you the best tips and techniques to complete the take-off of each system as effectively as possible.

This segment will introduce students to take-off and estimating software, including Planswift, ConEst Intellbid, Accubid Pro, and Turbobid.

Assignments during this segment will include taking off a variety of projects, from start to finish. You will have opportunities for one-on-one training with one of our instructors to further personalize your learning experience. Toward the end of the course, students will bid against each other, using projects completed in class!

Segment III – Turning the Take-Off Into a Bid

Once the class completes the take-off phase of the program, our work will continue to those tasks that must be completed before a bid is submitted. The Bid Recap brings the take-off together with

other expenses, to result in a bid. In this segment, each student will learn about the elements of the bid recap, including vendor quotes (and how to select the “right” one on bid day), direct job expenses (which ones are necessary and when), applying your labor rate, and deciding if indirect labor is required. Students will also learn how to apply overhead and profit. Overhead can be mysterious to some, so we’ll break down its components so you apply the proper amount to your bid. Then we’ll talk about profit (Trust us; it’s *not* a dirty word!) Finally, you will add sales tax (where required), bond (if required), fees and permits to come to your sales, or bid, price.

Whenever a bid is submitted, it should also be accompanied by a scope, or proposal, letter. Each student will learn how to write a comprehensive scope letter, detailing all the inclusions, exclusions, and job qualifications. We’ll also share some lingo that can be very helpful (and in many cases cost saving) to an estimator.

Segment IV– Bringing It All Together

The estimating world is truly a circle. Hopefully, you bid a job, you get a job, you finish a job, and then you take the information you have learned from it, and cycle the information back into your estimating system. Each student, through the course of 4 months, will truly see how important a detailed take-off is. It feeds information into project management so they can effectively manage a job. It helps the purchasing department buy the right bill of material. And of course, the job feeds into the historical data of the company.

Once we have gone through this whole process, the student will also further understand the value of relationships...with general contractors, electrical suppliers, and industry associations. These relationships help the whole process work better. In addition, students will also have a good handle on where to find bid leads, and how to determine whether a job should be bid, or not.

Final note: All of the instructors are available Monday through Friday, 8 am until 5 pm to answer student questions outside of class time. This is an invaluable perk as the instructors all have extensive estimating and estimating management experience. Candels Estimating Training Academy is the *only place* to participate in an estimating *apprenticeship*.



ESTIMATING APPRENTICESHIP STUDENT REGISTRATION

Company Information

Company name/sponsor (if applicable)

Company address, city, state, zip

Company phone and fax

Company contact and email address

Company preferred estimating software, if any

Student Information

Student name

Student address, city, state, zip

Student cell phone and email address

Student estimating experience, if any

Payment Information – please fax payment information to secure 877-670-2124 or email to lcandels@candelsoncall.com

One-time payment of \$6500 upon registration
(Please note that your credit card will be charged when we reach the minimum student registration..)

Credit card type and number

Expiration date and 3 (4) digit security code

Cardholder name and address including zip code

*Please call for multiple students
from the same company and
available payment plans.*