

Barton Community College Scale Technician Certificate Program Executive Summary

Objective:

Prepare individuals to work in the scale industry. The certificate program is designed to provide the skills necessary to install, maintain, and certify scales for wholesale and retail uses. Upon completion of this certificate program, students will possess the basic knowledge and proficiency for an entry-level position in the scale industry and progress rapidly in the industry. Students will also be eligible to obtain their license to certify scales for commercial use upon successful completion of the program.

The certificate program will be offered in an accelerated work format. The entire program of study may be completed within one college semester; each class within the certificate program will be completed in no more than two weeks. The proposed format will include eight hour school days mirroring a work day; thus, preparing students to work in the industry. Additionally, concentrating on course material over a shorter timeframe helps reinforce learning. In order to maintain federal financial aid eligibility, coursework will be schedule for 17 weeks or one semester.

The certificate program will be limited to 16 students per program offering.

Classes within the certificate program would be open to individuals in the industry (as space allowed) to update skills.

Curriculum:

Technical Mathematics - 3 credit hours

- A basic mathematics background emphasizing mathematical concepts and operations for proper scale operations and scale certification.

AC Circuit Fundamentals – 4 credit hours

- This course teaches students the fundamentals of Alternating Current (AC), including magnetism, waveforms, oscilloscopes, function generators, capacitance, inductance, reactance, impedance, resonance, power supplies, transformers, RC circuits, RL circuits, RLC circuits, and filters.

DC Circuit Fundamentals- 3 credit hours

- The course is designed to acquaint students with the fundamentals of direct current (DC); circuits, the relationship between voltages, current, resistance, and power, the application of Ohm's and Kirchhoff's laws.

Safety- 3 credit hours

- Safety regulations pertinent to the scale industry.

Computer Concepts and Applications – 3 credit hours

- Basic computer operations including word-processing, spreadsheet applications and data base management.

Weights and Measures Procedures & Practices– 3 credit hours

- Federal/state rules and regulations applicable to the scale industry and exposure to the essential skills necessary for success in the weights and measures industry.

Scale Principles and Technology – 3 credit hours

- Principles and practices of scales including an overview of today's scale technology, both analog and digital. To include proper practices in scale setup, maintenance and evaluation.

Commercial Driver's License – 3 credit hours

- Information and training needed to successfully acquire a Commercial Driver's License (CDL), class A or B. If the student already possesses a CDL, they would receive credit for the class.

Internship- 1-4 credit hours

- This course is designed to provide the student with practical work experience and on the job training within his or her chosen career field. Students will work with professionals in the field, learn the type of dedication necessary and observe working operations of the scale industry.
- This course would be an elective and not required for the certificate.

Total Certificate Program College Credits: 25 required credit hours with an additional 1 to 4 hours of electives

Program Notes:

- Program could be completed in nine to ten weeks.
- Preliminary discussions with the Weights and Measures Division of the Kansas Department of Agriculture indicate they would issue a license upon successful completion of the certificate program.
- It is suggested that discussion occur about the involvement of Physical Capacity Assessment prior to or at the time of hire.
- Large Scales training will be done on location at area industry partners.

Training Costs:

- **Tuition & Fees Per Student**
 - Legal Kansas Resident - \$104 per credit hour
 - Legal U.S. Resident Outside Kansas –\$132 per credit hour
- **Equipment Costs: (the College will need the following items to support the program)**
 - Retail Scale- approximately \$1,200 X 1= \$1,200
 - Small Scale- approximately \$2,000 X 1=\$2,000
 - Calibration Weights \$2,000 X 1= \$2,000
 - AC / DC Power supply - 8 ea. @ \$ 400 = \$3200
 - Solderless Breadboard - 8 ea. @ \$30 = \$240
 - Assortment kits of resistors, capacitors and inductors - 8 ea. @ 100 = \$800
 - Digital multimeters with scope display - 8 ea. @ \$1000 = \$8000
 - AC frequency generators - 8 ea. @ \$800 = \$6400
 - Calculators - 17 ea. @ \$40 = \$680
 - Solder kits with Accessories. 8 ea. @ \$200 = \$1600
- Barton purchased a set of calibration weights, a retail scale and a small scale, utilizing funds from the Kansas Department of Agriculture.
- Several of our industry partners have indicated they would be willing to make equipment donations

Training Team:

- Mary Foley – Executive Director of Workforce Training & Economic Development
- Dr. Vic Martin – Agriculture Instructor & Coordinator – Scale Technician Trainer
- Vince Orth – Natural Gas Technician Instructor – Scale Technician Trainer