CHC105 Introductory Craft Skills Syllabus

Course Information
Credits 3
Campus Washburn Institute of Technology
Address 5724 SW Huntoon
City/State/Zip Topeka, Kansas 66604
Office Fax 785-273-7080

Description
This is a required course for all students entering the Commercial & Heavy Construction program. The intent if this course is to introduce the students to the construction trades. It is very important for every student to learn the proper way to conduct themselves while in the shop or on the job site. This course will cover shop and job site safety, tool safety, personal protective devices, protective railings, proper storage and handling of construction materials, and construction drawings. This course will follow the NCCER modules for: Basic Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Introduction to Blueprints, Basic Rigging, Basic Communication Skills, and Basic Employability Skills.

Textbooks

Student Learning Outcomes:
A. Communicate effectively
B. Integrate technology
C. Learn effectively
D. Demonstrate cooperative teamwork skills
E. Think critically and creatively
F. Demonstrate responsible work ethics

Competencies
1. Explain the idea of a safety culture and its importance in the construction crafts.
2. Identify causes of accidents and impact of accident costs.
3. Explain the role of OSHA in job-site safety.
4. Explain OSHA’s General Duty Clause and 1926 CFR Subpart C.
5. Recognize hazard recognition and risk assessment techniques.
6. Explain fall protection, ladder, stair, and scaffold procedure and requirements.
7. Identify struck-by hazards and demonstrate safe working procedures and requirements.
8. Identify caught-in-between hazards and demonstrate safe working procedures and
requirements.
9. Define safe work procedures to use around electrical hazards.
10. Demonstrate the use and care of appropriate personal protective equipment (PPE).
11. Explain the importance of Hazard Communications (HazCom) and material safety data sheets (MSDS).
12. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.
13. Introduction to Construction Math
14. Add, subtract, multiply, and divide whole numbers, with and without a calculator.
15. Use a standard ruler and metric ruler to measure.
16. Add, subtract, multiply, and divide fractions.
17. Add, subtract, multiply, and divide decimals, with and without a calculator.
18. Convert decimals to percentages and percentages to decimals.
19. Convert fractions to decimals and decimals to fractions.
20. Explain what the metric system is and how it is important in the construction trade.
21. Recognize and use metric units of length, weight, volume, and temperature.
22. Recognize some of the basic shapes used in the construction industry, and apply basic geometry to measure them.
23. Introduction to Hand Tools
24. Recognize and identify some of the basic hand tools used in the construction trade.
25. Use hand tools safely.
26. Describe the basic procedures for taking care of hand tools.
27. Introduction to Power Tools
28. Identify power tools commonly used in the construction trade.
29. Use power tools safely.
30. Explain how to maintain power tools properly.
31. Introduction to Blueprints
32. Recognize and identify basic blueprint terms, components, and symbols.
33. Relate information on blueprints to actual locations on the print.
34. Recognize different classifications of drawings.
35. Interpret and use drawing dimensions.
36. Basic Rigging
37. Identify and describe the use of slings and common rigging hardware.
38. Describe basic inspection techniques and rejection criteria used for slings and hardware.
39. Describe basic hitch configurations and their proper connections.
40. Describe basic load-handling safety practices.
42. Basic Communications Skills
43. Demonstrate the ability to interpret information and instructions presented in both written and verbal forms.
44. Demonstrate the ability to communicate effectively in on-the-job situation using written and verbal skills.
45. Basic Employability Skills
46. Explain the construction industry, the role of the companies that make up the industry, and the role of individual professional in the industry.
47. Demonstrate critical thinking skills and the ability to solve problems using those skills.
48. Demonstrate knowledge of computer systems, and explain common uses for computers in the construction industry.
49. Demonstrate effective relationship skills with teammates and supervisors, the ability to work on a team, and appropriate leadership skills.
Guidelines for Success

Assessment Plan
Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution’s technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Criteria:
A  90%-100%
B  80%-89%
C  70%-79%
F  Below 70%
70% performance/equipment tasks; 30% classroom/test

Attendance
Classroom attendance is required. Material missed must be made up with instructor.

Disability
The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator
Phone:  785-228-6356
E-Mail: ssscoordinator@washburn.edu