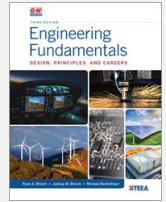
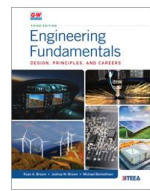


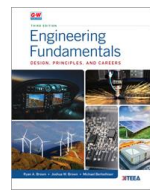
**Goodheart-Willcox  
Correlation of Engineering Fundamentals ©2023  
To Georgia Department of Education  
Architecture and Construction Career Cluster  
Industry Fundamentals and Occupational Safety  
Course Number 46.54500**



Course Task/Competency Lists		Correlating Textbook Pages
<b>AC-IFOS-1 Demonstrate employability skills required by business and industry.</b>		
1.1	Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.	7-8, 30
1.2	Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.	7-8
1.3	Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.	7-8
1.4	Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.	7-8, 33-35
1.5	Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.	7-8
1.6	Present a professional image through appearance, behavior and language.	7-8
<b>AC-IFOS-2 - Understand and practice construction safety.</b>		
2.1	Demonstrate knowledge of use and care of PPE.	155, 259, 421
2.2	Demonstrate a basic knowledge of OSHA and its regulations.	259, 421
2.3	Demonstrate a basic knowledge of safety as related as relates to personal safety, aerial work, electricity, and fire.	155, 259, 324, 421
<b>AC-IFOS-3 - Understand and apply math concepts as applied to construction.</b>		
3.1	Demonstrate knowledge and application of measuring.	11 (Math), 143, 252 (Tools)
3.2	Apply basic math computations to construction settings.	6, 142-145
3.3	Apply basic geometric calculations including the 3-4-5 rule.	6142-145, 144 (Math)
3.4	Demonstrate knowledge and application of area and volume calculations.	6,142-145



<b>AC-IFOS-4 -Utilize basic hand and power tools in a professional and safe manner.</b>		
4.1	Demonstrate knowledge of rules and regulations regarding the safe use of hand and power tools.	7, 174 (Tools), 252 (Tools)
4.2	Demonstrate knowledge of the care and maintenance of hand and power tools.	7, 174 (Tools), 252 (Tools)
4.3	Demonstrate knowledge of proper usage techniques of hand and power tools.	7, 174 (Tools), 252 (Tools)
<b>AC-IFOS-5 -Demonstrate knowledge of construction drawings terms, components, and symbols.</b>		
5.1	Demonstrate knowledge of construction drawings terms.	122-135
5.2	Demonstrate knowledge of construction drawings components.	122-135
5.3	Demonstrate knowledge of construction drawings symbols.	131
<b>AC-IFOS-6 -Explain and implement safe rigging procedures.</b>		
6.1	Demonstrate the knowledge of basic rigging equipment.	155, 259, 421
6.2	Demonstrate the knowledge of basic rigging communication.	155, 259, 421
6.3	Demonstrate the knowledge of basic rigging safety.	155, 259, 421
<b>AC-IFOS-7 - Understand hazards associated with materials handling.</b>		
7.1	Demonstrate knowledge of the importance of proper materials handling.	227-228
7.2	Demonstrate the ability to develop a pre-task plan.	227-228
7.3	Demonstrate the ability to use proper materials handling techniques.	227-228
7.4	Demonstrate the ability to choose appropriate materials handling equipment for a given task.	227-228
7.5	Demonstrate the ability to recognize hazards and follow appropriate safety procedures associated with materials handling.	227-228
<b>AC-IFOS-8 -Demonstrate knowledge of the different forms of communication used in the construction industry.</b>		
8.1	Demonstrate knowledge of interpreting written and verbal instructions.	7-8, 30



8.2	Demonstrate the ability to effectively communicate using verbal and written skills.	7-8, 30
8.3	Demonstrate the ability to effectively communicate using electronic communication devices.	7-8, 30
<b>AC-IFOS-9-Develop an understanding of construction careers and describe the principal fields of specializations (i.e. Carpentry, masonry, plumbing, electrical, welding, precision machining) and identify associated career opportunities.</b>		
9.1	Identify education requirements for construction occupations and locations where programs of study are available.	31-32
9.2	Match construction job titles with qualifications and responsibilities.	10-17
9.3	Participate in activities related to career interests.	32-33
<b>AC-IFOS-10-Examine how SkillsUSA is a co-curricular part of career and technical education through leadership development, school and community service projects, and competitive events.</b>		
10.1	Explain the purpose, mission, objectives, motto, colors, official dress and other distinguishing characteristics of SkillsUSA.	32-33
10.2	Explain how participation in SkillsUSA can promote lifelong responsibility for community service, professional growth and development.	32-33
10.3	Explore the impact and opportunities that SkillsUSA can develop to bring business and industry together with education in a positive working relationship through innovative leadership and career development programs.	32-33
10.4	Explore the local, state, and national opportunities available to students through participation in SkillsUSA, including but not limited to conferences, competitions, community service, philanthropy, and other SkillsUSA activities.	32-33