

# Textile Science (2013)

Demonstrate employability skills required by business and industry. HUM-TS-1

- 1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities. HUM-TS-1.1
- 2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods. HUM-TS-1.2
- 3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations. HUM-TS-1.3
- 4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity. HUM-TS-1.4
- 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. HUM-TS-1.5
- 6 Present a professional image through appearance, behavior and language. HUM-TS-1.6

Examine the various career opportunities within the textile industry. HUM-TS-2

- 1 Research and evaluate careers where knowledge of textile sciences is required or valuable. HUM-TS-2.1
- 2 Analyze the future employment outlook in the textile industry. HUM-TS-2.2
- 3 Describe levels of employment and entrepreneurial opportunities in the textile industry and local sources of employment information. HUM-TS-2.3
- 4 Determine continuing-education opportunities that enhance career advancement. HUM-TS-2.4

Develop a general knowledge of textiles from a historical perspective to current applications. HUM-TS-3

- 1 Examine the construction and use of textiles from antiquity to the industrial revolution. HUM-TS-3.1
- 2 Examine the construction and use of textiles from the industrial revolution through the 21st century. HUM-TS-3.2

Investigate, describe and recognize fiber

- 1 Analyze and identify natural and man-made fibers. HUM-TS-4.1

**characteristics and properties.** HUM-TS-4

- 2 Investigate aesthetic features, mechanical properties, and chemical properties of all fibers.** HUM-TS-4.2
- 3 Demonstrate fiber identification by burning.** HUM-TS-4.4

**Examine and identify the fabrication and properties of yarns.** HUM-TS-5

- 1 Analyze and identify simple and complex yarns.** HUM-TS-5.1
- 2 Investigate aesthetic features, mechanical properties, and chemical properties of all yarn constructions.** HUM-TS-5.2
- 3 Identify textured yarns and describe the effect on fabrics.** HUM-TS-5.3
- 4 Differentiate yarns within fabric structures.** HUM-TS-5.4

**Examine and identify the fabrication and properties of yarns.** HUM-TS-6

- 1 Identify woven fabrics and determine use for apparel and/or interiors.** HUM-TS-6.1
- 2 Identify non-woven fabrics and the most appropriate use for apparel and/or interiors.** HUM-TS-6.2
- 3 Identify knitted fabrics and the most appropriate use for apparel and/or interiors.** HUM-TS-6.3
- 4 Identify the origin of all fabrics, including Animal (Sheep) wool, and Insects (Worms) silks.** HUM-TS-6.4

**Demonstrate an understanding of textile finishes and methods.** HUM-TS-7

- 1 Compare and contrast mechanical, chemical, and functional finishes.** HUM-TS-7.1
- 2 Demonstrate and identify fiber finishes through swatch tests, and the importance, if fabrics are not tested correctly, can create huge problems with the end product.** HUM-TS-7.2
- 3 Compare and contrast printing and dyeing methods.** HUM-TS-7.3
- 4 Demonstrate and identify printing and dyeing method.** HUM-TS-7.4
- 5 Identify the different results you can achieve printing and dyeing natural and synthetic fibers.** HUM-TS-7.5

**Analyze the characteristics and maintenance concepts of textile products.** HUM-TS-8

- 1 Research various testing methods for textiles.** HUM-TS-8.1
- 2 Read and interpret textile labels used for interiors and apparel.** HUM-TS-8.2
- 3 Discuss current environmental issues relevant to the textile industry.** HUM-TS-8.3

**Distinguish the characteristics and identify the appropriate use of textiles for**

- 1 Evaluate common textiles used for interiors.** HUM-TS-9.1
- 2 Evaluate common textiles used for apparel.** HUM-TS-9.2

**apparel and/or interiors.** HUM-TS-9

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**3 Evaluate common textiles used for industrial applications.** HUM-TS-9.3

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**Investigate how trends and color forecasting are used in the development of new products.** HUM-TS-10

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**1 Investigate textile for interiors.** HUM-TS-10.1

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**2 Investigate textiles for apparel.** HUM-TS-10.2

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**3 Investigate textiles for industrial applications.** HUM-TS-10.3

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**Examine the continuing use of technology in advancing textile products using innovative skills and tests.** HUM-TS-11

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**1 Discuss the role textiles play in sports equipment, (e.g., sweat absorbent finishes (wicking), antibacterial finishes).** HUM-TS-11.1

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**2 Identify how textiles are being used in the medical field.** HUM-TS-11.2

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**3 Discuss the careers that rely on wearing textiles, including uniforms to body armor.** HUM-TS-11.3

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**Research legislation on the federal, state and local levels that regulate the textile industry.** HUM-TS-12

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**1 Analyze legislation, regulations, and public policy affecting the textile industry, including labeling laws.** HUM-TS-12.1

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**2 Analyze personal and employer responsibilities and liabilities regarding industry related safety, security, and environmental factors.** HUM-TS-12.2

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**3 Discuss the reason why most companies are manufacturing products overseas, and the affect that has on the United States.** HUM-TS-12.3